

# ACCEPTED ORAL PRESENTATIONS

## Prevention

### O-002 UNIQUENESS OF BREAST CANCER AFFECTING ARAB WOMEN IN ISRAEL

K. Baddarni

Al-Taj Organization

Background: in the Arab sector, cancer constitutes the second most frequent cause of death (17%) after heart diseases (19%). For the last 30 years, cancer in Arab women had an increase of 123% compare to only 24.4% for Jewish women. During last 50 years, researchers found a rapid increase of over 400% in breast cancer in the Arab women in Galilee compare to an increase of 24% in Jewish partner. Uniqueness: breast cancer at Arab sector affecting younger women (45.7% are under the age of 50 compare to only 23.3% of Jewish). Diagnosed at later stage: only 36% are diagnosed at stage 0-1 compare to 53% for Jewish women, while 42% of Arab diagnosed at stage 3-4 compare to 12% of Jewish. Late diagnoses usually due to poor screening mammography: 20% of Arab women compare to over 60% for Jewish. Breast cancer with higher affinity to HER2: 39% of Arab patients compare to 24% of Jewish (25% globally). Arab breast cancer with higher severity type: 28% at severity grade 3 compare to 12% for Jewish. Ratio of incidence to mortality of breast cancer is 2.2 for Arab compare to 3.0 for Jewish reflecting advanced stage of diagnoses. Conclusions: life style modification been identified as a major cause for cancer morbidity at general and breast cancer at particular. Early intervention by health promotion for prevention and early detection can improve quality of life of women at various cultures with transition of life style.

### O-003 SERUM TRIGLYCERIDE LEVEL AND RISK OF PROSTATE CANCER: A MULTICENTER CASE-CONTROL STUDY

S. Salem, M. Rezaeidanesh, H. Ahmadi, Z. Kor, A. Mehraei, M. Nikoobakht, G. Pourmand

Urology Research Center, Tehran University of Medical Sciences

Introduction: Serum lipid concentration as a part of the metabolic syndrome is supposed to be linked to prostate cancer risk. However, few epidemiological studies have assessed the relation between serum triglyceride level and risk of prostate cancer. This study sought to further evaluate the probable association between serum triglyceride level and prostate cancer risk. Methods: Using data from a prospective hospital-based multi-center case-control study, serum triglyceride concentration as well as thorough demographic and medical characteristics were determined in 194 cases with the newly diagnosed, clinicopathologically confirmed PC and 317 controls, without any malignant disease, admitted to the same network of hospitals. Odds ratios (ORs) and corresponding 95% confidence intervals (CIs) were obtained after adjustment for major potential confounders, including age, body mass index, smoking, alcohol, education, occupation and family history of PC. Results: The mean ( $\pm$ SD) serum triglyceride level in case and control groups were 141.24 $\pm$ 74.39 mg/dl and 143.38 $\pm$ 71.51 mg/dl, respectively; the difference was not statistically significant ( $p=0.76$ ). Comparing the highest with the lowest tertile, serum triglyceride concentration was not associated with the increased risk of prostate cancer (OR: 1.24, 95% CI: 0.08-3.12;  $P=0.18$ ). Conclusion: Our findings do not support the hypothesis that serum triglyceride level may be involved in the pathogenesis of prostate cancer.

### O-004 LIFESTYLE AND DIETARY FACTORS RELATED TO THE RISK OF CHOLANGIOCARCINOMA IN HIGH-RISK AREA OF THAILAND

N. Songserm\*, S. Promthet\*\*, P. Sithithaworn\*\*\*, D. Parkin\*\*\*\*

\*Graduate School, Khon Kaen University, Thailand

\*\*Department of Epidemiology, Faculty of Public Health, Khon Kaen University, Thailand

\*\*\*Department of Parasitology, Faculty of Medicine, Khon Kaen University, Thailand

\*\*\*\*Clinical Trials Service Unit and Epidemiological Studies Unit, University of Oxford, United Kingdom

Introduction & Objective: In Thailand, liver cancer is the most common cancer, especially in Khon Kaen Province.

Cholangiocarcinoma (CCA) is one of cancers in gastrointestinal tract, but there is limited information on lifestyle and dietary factors related to the risk of CCA. This study aimed to explore lifestyle and dietary factors for CCA in high-risk area of Thailand. Methods: This study is a nested case-control study within a cohort study. Cases were 219 subjects with proven CCA by ultrasound at least that obtained from linkage between files of the Khon Kaen Cohort Study and the Khon Kaen Provincial Cancer Registry. Two non-cancer controls were matched to each case on sex, age at recruitment ( $\pm 3$  years) and result of liver fluke's egg in stool. A structured questionnaire was constructed based on questionnaire used at recruitment. Odds ratios (ORs) with 95% confidence intervals (CIs) were estimated using conditional logistic regression. Results: Distribution of sex and age at recruitment were similar in case-control status. In the final analysis, factors that found to be higher risk with statistically significant were alcohol drinking (OR=4.02, 95%CI: 2.34-6.92), freshwater fish consumption (OR=1.92, 95%CI: 1.08-3.40), beef consumption (OR=2.54, 95%CI: 1.03-6.25) and history of liver fluke infection (OR=3.25, 95%CI: 2.10-5.04). Conclusion: Our study confirmed the effects of consumption of alcohol, freshwater fish and beef against CCA development and showed increase risk among individuals who had history of liver fluke infection. Increased knowledge in changing of lifestyle and dietary patterns targeted toward subjects in high-risk area is recommended to effective for cancer control.

### **O-005 PLANTS AS A FOOD AND MEDICINE SOURCE IN THE MIDDLE EAST**

A. Abu-Rabia

University of the Negev

Introduction and objectives: Nutritional anthropologists are interested in monitoring what we eat, how we eat and why we eat what we eat. The considerable variation in dietary habits from culture to culture is widely accepted as a factor underlying differences in cancer incidences in different populations around the globe. This paper presents examples of different edible plants and their use as foodstuffs and treatment of diseases-mainly cancer- and other medical disorders. Methods: Interviews with healers, patients, physicians and dieticians. Plants were identified and classified by healers and university botanists & scientists. Results: Olive oil & olives (composed oleic acid, linoleic acid) have protective effects against gastric cancer; Origanum (Marjoram) has been found to have potential benefit with anti-cancer/anti-carcinoma (breast, colon, lung, pancreas, prostate) effects. Conclusions: Comparative studies in the Middle East reveal that the differences between the prevalence of cancer are the result of different dietary patterns, which include nutritional factors that serve as cancer-inducing or cancer-protective mechanisms. A lot of Plants are a source of food and medicine in the Middle East; and contain a host of biologically-active compounds. Their potential application as cancer-protective and/or cancer chemo-preventive agents needs to be a focus of research attention.

### **O-006 HPV VACCINE INTRODUCTION IN LOW AND MIDDLE INCOME COUNTRIES**

A. Jumaan, S. Lamontagne

PATH

About 500,000 cases of cervical cancer and 270,000 deaths are estimated to occur annually worldwide. The highest incidence and mortality rates are in sub-Saharan Africa, Latin America, and South Asia. About 80% of cervical cancer deaths occur in developing countries. Currently, two highly efficacious HPV vaccines are available for the prevention of infection with HPV types 16 and 18 that are associated with 70% of cervical cancer cases. The greatest impact is expected in low and middle income countries. Objective: Assess factors associated with successful HPV vaccine introduction in four low and middle income countries: Peru, Uganda, India and Vietnam. Methods: Regions/districts typical for their respective countries were selected for demonstration projects. We conducted formative research, and then utilized the results to design vaccination strategies that were integrated into existing health delivery systems for immunizations. We evaluated vaccine coverage, HPV vaccine acceptability, feasibility of integrating HPV vaccine into current systems and incremental costs of vaccination. Results: Formative research results helped reveal complexities of HPV vaccine introduction from the perspective of communities. High vaccine coverage, feasibility and acceptability were achieved by implementing HPV vaccination through national immunization programs, effective community education, strengthening existing services, using schools/clinics to reach young adolescent girls. Incremental implementation cost varied by country. Conclusion: Results from four diverse low- and middle resource countries suggest that HPV vaccines can be effectively delivered, provided that the local context is understood, existing systems are supported and strengthened, and community and health officials input are secured.

### **O-007 OCCUPATIONAL EXPOSURE ASSESSMENT IN CASE-CONTROL STUDY OF NASOPHARYNGEAL CANCER IN THAILAND**

S. Sangrairang\*, K. Thepsuwan\*\*, S. Sangkittipai boon\*\*\*, P. Supaattagorn\*\*\*\*, S. Penpattanakul\*\*\*\*\*, T. Phonglaohaphan\*\*\*\*\*, T. Sinthusake\*\*\*\*\*, C. Ekpanyakul\*\*\*\*\*

\*National Cancer Institute, Thailand

\*\*Chonburi Cancer Center

\*\*\*Lopburi Cancer Center

\*\*\*\*Ubonratchathani Cancer Center

\*\*\*\*\*Udonthani Cancer Center

\*\*\*\*\*Lampang Cancer Center

\*\*\*\*\*Mahavajiralongkorn Center

\*\*\*\*\*Srinakarinwirot University

Nasopharyngeal carcinoma (NPC) is rare in most parts of the world but is endemic in some regions, particularly Southeastern Asia. Occupational exposure to and wood dust is believed to play role in NPC development, however, the link between these factors is poorly understood. The objective of the study was to evaluate the link between occupational exposure to wood dust and the development of NPC. A case-control study was conducted among 327 newly diagnosed cases of NPC and 327 controls at National Cancer Institute and regional cancer centers. Information was collected by interviewer about demographic variables, cigarette smoking, alcohol drinking, eating habits, past history of disease, family history of cancer and a lifetime history of every job that was held for one year or longer. A complete occupational histories were blindly assessed by 3 industrial hygienist to estimates of exposure to wood dust. We found the association of wood dust exposure and NPC risk with OR=1.77 (95% CI 1.11-2.82) especially for those who exposed more than 10 years (OR=1.97, 95% CI 1.02-3.81). Our results suggest that occupational exposure to wood dust are likely to be involved in the development of NPC among Thai population. This findings will be benefit for our cancer prevention program.

### **O-008 BREAST CANCER AWARENESS, SCREENING, OR EARLY DETECTION-WHAT IS FEASIBLE IN A HEAVILY POPULATED SOUTHEAST ASIAN COUNTRY WITH A VERY HIGH INCIDENCE OF BREAST CANCER?**

F. Badar, N. Uddin, Z. Faruqui

Shaukat Khanum Memorial Cancer Hospital & Research Center, Lahore, Pakistan

INTRODUCTION AND BACKGROUND: The annual age-standardized (world) incidence rate of breast cancer in the Karachi South district of Pakistan is 69.0 per 100,000 females ( $\geq 15$  years), the third highest in Asia. It is generally perceived that women are barely aware of breast-cancer/self-examination; therefore, they approach the clinicians once the disease has reached an advanced stage.

The extent to which general practitioners are familiar with clinical breast-examination or screening for latent disease has not been studied extensively either. **POPULATION ESTIMATES:** The 2009 estimates show that Pakistan has a population of 177 million. This figure is based on the last census held in 1998 and an average annual growth rate of almost 2.7%. Females comprise approximately ½ (85 million) of the total population. Of the female population, those in the 50-69 year age-group are about 8.1% (6.9 million). **RESULTS TO BE ACHIEVED IF SCREENING IS TO BE CALLED SUCCESSFUL:** If we base our recommendations on mammographic screening for average-risk women in the target age-band of 50-69 years biennially, we would need to start screening nearly 3.4 million women every year. In a resource-constrained country like ours, introducing mammography to ensure that at least 70% of the target population is screened appears unlikely because of the exorbitant costs. **CONCLUSION:** Following the guidelines on increasing the knowledge about breast cancer symptoms/signs, improving the services for early detection, and imparting quality treatment/follow-up care seems to be the prime need of the hour. This can be made feasible by government intervention/interest.

#### **O-009 THE EFFECT OF NUTRITIONAL CHARACTERISTICS ON COLORECTAL CANCER IN IZMIR: A POPULATION BASED CASE-CONTROL STUDY**

G. Ergor\*, R. Meseri\*, N. Karakus\*, S. Eser\*\*, M. Akarsu\*\*\*, R. Cehreli\*\*\*\*, H. Akpinar\*\*\*

\*Dokuz Eylul University Medical School Dept of Public Health

\*\*Izmir Cancer Registry Provincial Health Directorate

\*\*\*Dokuz Eylul University Medical School Dept of Gastroenterology

\*\*\*\*Dokuz Eylul University Oncology Institute

**Objective:** Colorectal cancers are one of the most common malignancies in western countries. Similarly, it is the second most common cancer in males and third in females in Izmir. There is substantial epidemiological and experimental evidence showing the importance of nutritional characteristics in cancer development. The objective of this study was to determine the nutritional characteristic of patients and controls in Izmir and to evaluate its effect on developing colorectal cancer. **Methods:** This is a population based case control study conducted in the metropolitan area of Izmir. Minimum sample size was determined with 80% power, 50% prevalence of various food groups in the community, and OR =1.6 with 95% confidence interval. The cases were taken from Izmir Cancer Registry and controls were chosen within the same age group ( $\pm 5$ ), same sex and same residence. Food frequency questionnaire was used to assess the frequency of consumption of various food groups. "Mediterranean diet" was defined from the data collected. **Results:** There were 293 cases and 293 controls in the study. There was no significant risk for colorectal cancer in people who had Mediterranean diet and the ones that did not ( $p > 0.05$ ). After adjusting for age, education and economical status, frequently consuming honey-jam and chips increase the risk of developing cancer, where using olive oil, consuming legumes and ketchup decrease the risk significantly. **Conclusion:** The effect of Mediterranean diet on colorectal cancer should be discussed carefully in settings where this type of diet is the usual practice.

#### **O-010 RISK FACTORS FOR ENDOMETRIAL CANCER IN SAUDI WOMEN**

H. Salem\*, D. Al Sufyani\*, M. Al Eker\*\*

\*KFSH&RC

\*\*KFSH&RC

**Objective:** This study was conducted to evaluate the risk factors predisposing Saudi women for endometrial cancer. From the review of tumor registry for Saudi Arabia we found that endometrial cancer is the commonest gynecological cancer affecting Saudi women with the percentage of 5.5% of all malignancies affecting Saudi women at different age group. The study was designed as a retrospective study through chart review for all patients diagnosed with endometrial cancer referred to KFSH&RC in the period of 1995 up to 2005. From the review of the charts for the 175 patients included in the study we could recognize the presence of the history of obesity, history of hypertension, history of diabetes mellitus or history of unopposed estrogen as clear risk factors predisposing women for endometrial cancer. **Conclusion:** It is obvious that we can reduce the incidence of endometrial cancer in Saudi population if we can have better control for the major risk factors affecting Saudi female including medical issues like hypertension, diabetes mellitus and obesity as a major risk factor for the improvement of endometrial cancer for those women and this should be done thru a clear campaign to bring public awareness about those risk factors and trying to reduce them in our Saudi female population.

#### **O-011 THE CORRELATION BETWEEN HPV INFECTION AND P53, PRB, KI-67 AS WELL AS TUNNEL EXPRESSION OF CERVICAL CARCINOMA**

F. Triningsih

Cancer Inst. Chinese Academy of Medical Sciences, Beijing China

**Background:** Linxian Nutrition Intervention Trial was a randomized vitamin/mineral supplementation primary cancer prevention trial conducted from 03/1985 – 05/1991 among 29,584 adult participants. Follow-up continued on all participants for 10 years after the end of active intervention to determine the durability of these effects and to look for other potential late effects. **Methods:** Follow-up assessment of total and cause-specific mortality was determined in three ways: by monthly village health worker checks, by periodic survey, and by quarterly review of the Linxian Cancer Registry. Statistical analysis calculated hazard ratios (HRs) and 95% confidence intervals (CIs) using proportional hazards models adjusted for other treatments, age, sex, and commune, and evaluated the cumulative effects of all four vitamin-mineral intervention factors. **Results:** 9727 total and 3242 cancer deaths (1515 esophageal and 1199 gastric cancer) were identified 3/1986–05/2001. Over 15¼-years of follow-up, participants who received factor D had 5% reductions in both total (95% CI 0.91-0.99) and cancer (95% CI 0.89-1.02) mortality. Esophageal cancer deaths decreased 17% (95% CI 0.71-0.98) in younger participants. Overall gastric cancer deaths were reduced 11% (95% CI 0.79-1.00). Risk reductions in these total and cause-specific mortalities were uniformly greater in younger participants. Benefit from factor D intervention was evident up to 10 years after conclusion of the intervention. **Conclusion:** The beneficial effects of selenium, vitamin-E and beta-carotene on mortality were still evident for up to 10 years after cessation of supplementation and were consistently greater in younger participants.

### **O-012 A CASE CONTROL STUDY OF EATING HABITS AS RISK FACTORS OF LUNG CANCER**

A. Abdullah, S. Shah, M. Hassan

UKM

A matched case-control study was conducted in order to determine the risk factors of frequency of food intake and their relation to lung cancer. 162 pairs of cases and controls were matched according to their gender, age and race and a study was conducted from June 2007 until May 2008 at the Sultanah Aminah Hospital in Johor, Malaysia. The analyses were done using SPSS 15 through the McNemar test (univariate) and the conditional logistic regression (multivariate) to determine the risk factors and their relation to lung cancer. The results of the study found that the factors increased the risk of lung cancer; a high frequency intake of salted food with  $ORM=1.61$  (95%CI:1.05-2.51) or  $ORa=2.50$  (95%CI:1.16-5.43), a high frequency intake of grilled food with  $ORM=1.83$  (95%CI:1.00-3.46) or  $ORa=3.22$  (95%CI:1.40-7.39), a high frequency intake of fried food with  $ORM=1.65$  (95%CI:1.08-2.55) or  $ORa=6.82$  (95%CI:2.85-16.34) and a high frequency consumption of caffeine with  $ORM=1.84$  (95%CI:1.03-3.41) or  $ORa=3.46$  (95%CI:1.62-7.36). However, these factors lower the risk of lung cancer; a high frequency intake of fruits with  $ORM=0.45$  (95%CI:0.26-0.75) or  $ORa=0.33$  (95%CI:0.15-0.71), a high frequency intake of vegetables with  $ORM=0.60$  (95%CI:0.37-0.94) or  $ORa=0.14$  (95%CI:0.06-0.33) and a high frequency intake of spicy food with  $ORM=0.50$  (95%CI:0.30-0.81) or  $ORa=0.43$  (95%CI:0.20-0.92). An unhealthy lifestyle can increase the risk of lung cancer but a high intake of fruits, vegetables and spicy food can lower the risk of being diagnosed with this disease.

### **O-013 STRUCTURAL AND NON-STRUCTURAL MANAGEMENT OF CARCINOGENIC WASTEWATER FACTORS IN A SEWAGE TREATMENT PLANT**

A. Malakahmad, N. Mohd Hilmin, A. Matori, S. Mohamed Kutty, M. Isa

Universiti Teknologi PETRONAS

Genotoxin materials are a group of chemicals or other agents that damages cellular DNA, resulting in mutations or cancer. Municipal wastewaters, although ranking low in genotoxicity potency, can achieve loading values that are several orders of magnitude greater than those of most industries. Furthermore, Genotoxicity calculations for the urban community municipal wastewater treatment facilities indicate that over 90% of the genotoxic loading is nonindustrial in origin. Although wastewater treatment plant operators are exposed to these substances daily, there is no regulation regarding to genotoxin materials discharge from municipal wastewater treatment plants to water streams in Malaysia, the country which statistics show 30000 cases of cancer annually. Therefore in this study, population forecasted, wastewater volume, flow and load were calculated for a sewage treatment plant in a university campus and then, genotoxin parameters in the wastewater were identified. Finally, structural and non-structural management methods were implemented to control genotoxin factors discharged in water bodies.

### **O-014 CANCER CONTROL PROGRAMS IN DEVELOPING COUNTRIES: WOMEN'S CANCERS CONTROL AS AN EXAMPLE**

J. Li\*, A. Reeler\*\*, Y. Qiao\*

\*Cancer Institute/Hospital, Chinese Academy of Medical Sciences, Peking Union Medical College

\*\*Axios International, Paris

Although the cancer death rates have shown decrease in developed countries, yet the number of cancer cases and deaths is projected to more than double worldwide over the next 20-40 years, with the largest number in the developing countries, where there are great needs but limited resources and less concerns from the governments. Successful implementation of cancer control programs in developing countries will (1) first require addressing priorities based on domestic epidemiological situation and available evidence based data; (2) Choose demonstration sites allowing for a systematic progression and expansion to evaluate obtainable technologies; (3) Decide the most appropriate technology that is cost-effective, acceptable, sustainable and of benefit to the majority of the targeted population according to the country's specific situation; (4) Expand sites with assessed technologies. For example, breast and cervical cancer are much more deadly in developing countries and early detection can make a significant difference for the treatment outcome and there are now cost-effective tools for prevention and screening. China, as a major developing country took these two cancers as priorities and made a stepwise planning by initiating demonstration sites and succeeded in expanding the sites nationwide. Taken as the example of a 'top-down' planning process for cancer control by WHO, China has proposed to gradually widen access to cancer prevention service so that women in rural China are included, this shows a step towards provision of universal cervical and breast cancer screening nationwide. If this program success, it could provide a good experience for other developing countries.

### **O-015 LOSS OF HETEROZYGOSITY (LOH) PATTERNS IN ESOPHAGEAL SQUAMOUS CELL CARCINOMA (ESCC) AND HEAD AND NECK SQUAMOUS CELL CARCINOMA(HNSCC) FROM RAW BETEL NUT (RBN) CHEWERS OF MEGHALAYA, INDIA**

A. Rai\*, A. Freddy\*, A. Chatterjee\*, G. Rangad\*\*

\*North Eastern Hill University, Shillong, India

\*\*Nazareth Hospital, Shillong, India

Betel chewing, besides tobacco and alcohol, is an established risk factor for Head and neck Squamous cell carcinoma (HNSCC) & Esophageal Squamous cell Carcinoma(ESCC) in South East Asian countries including India. The Khasi tribe of Meghalaya , North East (N.E.) India, chew Raw and unprocessed Betel nut (RBN), locally said as 'Kwai', with betel leaf and slaked lime. Loss of Heterozygosity (LOH) was used to investigate allelic losses with the use of 18 highly polymorphic microsatellite markers at three chromosomal sites (9p,13q,17p)most frequently affected in many solid tumors including HNSCC and ESCC. A total of 74 tumor samples from RBN chewers were used. The results from these studies are as follows: (a) Esophageal tumor samples analysis showed LOH 76% (9p), 57% (13q), 48% (17p) whereas for Head and Neck Tumor samples allelic losses were 47% (9p) , 18% (13q), 21% (17p). This study demonstrates that LOH patterns of HNSCC and ESCC have characteristic variation. We propose that the deregulation of p16 gene (9p) is a significant factor along with RB and p53 genes in pathogenesis of ESCC. But in HNSCC RB and p53 genes deregulation are not that important factors in association with p16 gene. The LOH patterns from this study differ from studies done in other parts of India. These variations in LOH could be attributed to differences in etiology, ethnicity, geographical location etc. Thus, it is essential to understand the initiation and progression factors involved in pathogenesis of ESCC & HNSCC

patients of Meghalaya .

## **O-016 EVIDENCE BASED GUIDELINES FOR CANCER PREVENTION FROM UNDERSTANDING COMMUNITY CONTEXT TO CHANGING BEHAVIORS**

M. Lim, E. Yun, J. Oh, E. Park

National Cancer Control Institutes, National Cancer Center, Republic of Korea

Background : In Korea, since 2006 with launching 'Second Term 10-Years Comprehensive Plan for Cancer Control', the importance of the cancer prevention has been focused. Purposes : To develop national guidelines for cancer prevention and to evaluate its impact on changing public awareness and behaviors. Methods : Web-based review system and standardized guidelines for evaluation were developed. Knowledge on cancer prevention were systematically reviewed and evaluated by expert groups. Awareness and behavior on cancer prevention has been investigated in every year with the interview survey using 'Precaution Adoption Process Model' among randomly selected adult population (1,000 individuals) to identify the effects of these codes and guidelines applied. Results : Evidence based knowledge and risk, cancer, and target specific practical guidelines focusing on '10 Codes for Cancer Prevention' was developed and disseminated. Those who know that cancer is avoidable and who aware the 10 Codes is 84% and 46%, respectively, while those who were in acting stage of these codes is relatively smaller than. Subjects having awareness on the 10 Codes tend to be on acting stage for each code. These patterns were not much changed after 1 year. Definitely increasing awareness on the fact that safe sexual behavior can prevent cancer showed short term effect of application of these codes and guidelines. Conclusions : Core message and guidelines seems necessary for cancer prevention, and the experience from Korea might give practical information to understand how the practical cancer prevention strategies could be developed and applied with evidence based knowledge.

## **O-017 BREAST CANCER RISKS IN THE MIDDLE EAST: IMPLICATIONS OF BREAST FEEDING PRACTICES**

S. Al-Akhras<sup>\*</sup>, A. Abou- Ismail<sup>\*</sup>, A. Ahmad<sup>\*</sup>, K. Becetti<sup>\*</sup>, N. Al-Shahwani<sup>\*\*</sup>, M. Jaffar<sup>\*\*\*</sup>, H. Burgut<sup>\*\*\*\*</sup>

<sup>\*</sup>Weill Cornell Medical College in Qatar

<sup>\*\*</sup>Al Basheer Hospital-Jordan

<sup>\*\*\*</sup>Alcham Medical Center for Cancer Diagnosis and Treatment- Syria

<sup>\*\*\*\*</sup>School of Medicine, Cukurova University, Adana Turkey

<sup>\*\*\*\*\*</sup>Cukurova University, School of Medicine

Background: Breast cancer is the most common malignancy among women worldwide. It accounts for one-third of all cancer in women. Moreover, breast cancer is a multifactorial disease with genetic predispositions and environmental contributions. One such factor is breastfeeding. Multiple studies conducted in the United States and Europe showed that its association with breast cancer to be controversial. Methods: In a Case-Control study, we investigated the relationship between breast cancer risk and breastfeeding practices among Arab women living in the states of Qatar, Syria and Jordan. A total of 1200 subjects from the 3 countries were interviewed using a pre-structured survey looking at general demographic information, menstrual history, breastfeeding and breast cancer history. Data was statistically assessed using the SAS software and was expressed as an OR with 95% Confidence Interval. Cases and controls show similar pattern with respect to number of pregnancy, and of living children but showed significant difference with respect to breast feeding practices(87% vs 98%,  $p<0.01$ ). Controls breast- fed their children longer than that of cases. Odds ratios (CI's) for the association between breast cancer and breast feeding practices will be provided. Implication from the result of this study for the women in the Middle East will be given.

## **O-018 ROLE OF SOME RISK FACTORS IN THE ETIOLOGY OF BREAST CANCER IN THE SUDAN**

H. Ahmed

Sudanese Cancer Foundation

Abstract The aim of this study was to correlate breast cancer by common breast cancer risk factors in the Sudan. Out of the 150 women with breast cancer, 38 (25.3%), 22(14.7%), 26(17.3%), 20(13.3%), 21(14%), 11(7.3%), 72(48%), and 86(57.3%) were identified as having a previous history of oral contraceptives usage, a family history of breast cancer, a past history of benign breast disease, a previous history of breast cancer, a previous breast biopsy, claimed other cancers in their families, confessed a pesticides exposure, and over weigh in most of their lives respectively . Out of the 150 women, 44(29.3%) were found to have a previous physical activity. Moreover, 44.8% and 66.9% have attended the menarche at the age of 13 and 14 respectively. According to the ethnic group, Gaalyaen tribes represented 61(40.7%) of the study subjects. Most of the patients were from Khartoum state, constituting 37.3%. There was variable exposure to many risk factors for breast cancer in the Sudan. The study suggests further separate measurement of risk factors for breast cancer, as well as, factors that might reduce those risk factors. Cohort mean of evaluation is highly recommended.

## **O-019 HUMAN PAPILLOMAVIRUS-INFECTION & CERVICAL CANCER PROBLEMS IN INDIA: DOES SOCIO-CULTURAL VARIATION MAKE A DIFFERENCE?**

C. Duttagupta<sup>\*</sup>, S. Sengupta<sup>\*\*</sup>

<sup>\*</sup>Institute of Technology & Marine Engineering, WB,India

<sup>\*\*</sup>Indian Statistical Institute,Kolkata. India

Uterine cervical cancer (CaCx) is a major women's health problem in India. The incidences are six-fold higher than those in the developed nations. Socioculturally India is heterogeneous and high level of reproductive morbidity exists. We aimed to determine whether sociocultural differences influence the human papillomavirus [HPV] infection followed by abnormal cytology among different populations of India. This was examined on married women enrolled mostly from lower socioeconomic strata from three States, two northeastern [Manipur(MN), n=692] and [Sikkim(SK), n=415] and an eastern state [West Bengal(WB), n=1112]. Women were attending the clinics in their respective region for receiving reproductive health care counseling. Pap-smear and cervical-scrape were

taken on all, which were screened respectively for the abnormal cytology-status and presence/types of HPV DNA. Result showed that independently the presence of oncogenic HPV-infection was higher in WB(8%) than in MN(3%) and SK(4%). Cervical abnormality was significantly higher in SK(13.5%) compared to WB(9.5%) and MN(3%). Jointly abnormal cytology and HPV-infections were present in WB(21%) and SK(14%) and none in MN. That oncogenic HPV-infection (and abnormal cytology) among Indian women varies in different States bring out discussions on the demographic and other lifestyle variables for the development of abnormal cytology/CaCx. We shall address social/ethical issues that may reflect on the overall health-status of these Indian women in a rural set up. The knowledge/awareness of these women for their own rights to lead a healthy life will also be discussed.

## **O-020 PARITY AND BREAST FEEDING ARE PREVENTIVE MEASURES FOR BREAST CANCER IN IRANIAN WOMEN**

A. Akbari\*, Z. Razzaghi\*, F. Homaee\*\*, M. Khayamzadeh\*, M. Movahedi\*, M. Akbari\*

\*Cancer Research Center, Shahid Beheshti University of Medical Sciences

\*\*Cancer Research Center, Mashhad University of Medical Sciences

Background: Breast cancer (BC) is the most prevalent cancer in Iranian women and the fifth cause of cancer related death. Among predicting and preventive measures the parity and breast feeding (BF) are controversial issues. So we conducted this case control study to find out the relation of parity and BF with incidence and risk of BC. Method: A structured questionnaire that covered demographic criteria and BC risk factors were filled up for case (376) and control (425) groups. The two groups were matched by demographic variants, some reproductive issue and socioeconomic status. Odds ratio (OR) and 95% confidence intervals (CI) were computed as measures of association from the logistic models. Results: Parity significantly reduces the risk of BC ( $p$ -value=0.001, OR=2.05, CI=1.4-3.3), and BF is protective ( $p$ -value=0.0001, OR=0.39, CI=0.27-0.56). The best result gained with 1-3 parity and 24 months BF and mean duration of 18-24 months per child ( $p$ -value=0.037, OR=0.7, CI=0.5-0.98) for duration of 18-24 months per child. Conclusion: Base on the hypothesis of anatomical and physiological changes in breast during pregnancy, parity and breastfeeding; full term pregnancies and parities with efficient BF significantly reduced the risk of breast cancer comparing with non pregnant and nulliparous women or never BF, the number of children should be limited to 1-3, and the cumulative duration of BF not less than 25-36 months, so it is fully recommended to get marry, with pregnancy 1-3 and duration of BF not less than 18 months and best result with 24 months per child.

## **O-021 CANCER REGISTRY AND COMPREHENSIVE CANCER CONTROL PROGRAM (CCCP) IN IRAN'S NATIONAL REPORT**

M. Gooya\*, R. Ramazani\*, A. Akbari\*\*, F. Fattahi\*\*, L. Farkhondekish\*\*, M. Khayamzade\*\*, M. Akbari\*\*

\*Ministry of Health And Medical Education, I. R. Iran (MOH&ME)

\*\*Cancer Research Center, Shahid Beheshti University of Medical Sciences

The number of new cancer cases expected to rise up with 50% increase in incidence during next 15 years throughout the world which 60 % of those cases occurring in developing countries. Also the largest increase in cancer death among the world health organization regions in the next 15 years (104%) is likely to be in the eastern Mediterranean region in which projection modeling predicts an increase of 181% . In Iran, cancers are the third cause of death with 30000 cases annually. Cancer registry in Iran is started from 1984, when registry and reporting of cancer cases was approved by the parliament law and developed to nowadays which 81% of whole cases are registered entire country based on laboratory diagnoses. Completion of this registry is beginning in four provinces with adding hospital cases and death certificates. Now cancer incidence in Iran is 70000 new cases annually (1/1000 inhabitants) and age specific rate is 117.27 and 102.23 per 100000 for male and female respectively. A comprehensive cancer control program (CCCP) was designed in 2006 and now is running in four provinces as pilot project .This program follows the goals as below: -Decreasing of cancer incidence, mortality and morbidity. -Increases quality of life in cancer patients and their families. The main strategies are: cancer prevention, early detection and screening programs, well and beneficial diagnoses and treatment based on national guide lines and spatial attention to palliation care. The activities are public education, health personnel training, political commitment, inter sectoral collaboration and using appropriate technologies. In this paper we will review the mechanism of cancer registry and CCCP in Iran in a national manner.

## **O-022 GEOGRAPHIC HETEROGENEITY OF CYTOGENETIC CHARACTERISTICS OF ACUTE MYELOID LEUKEMIA IN THE EARLY DETECTION: CANCER PREVENTION STUDY OF IRANIAN AND INDIAN ADULT PATIENTS**

A. Movafagh

1\* For correspondence; Dr Abolfazl Movafagh, Head Department of Medical Genetics, Shahid Beheshti Medical University Evin Ave Tehran Iran, Fax +98(21) 22240067- +98 -21 - 23872572, E mail : Movafagh\_a@yahoo.com

Abstract Introduction :Acute Myeloid Leukemia(AML) in adults is known to be a heterogeneous disease with diverse chromosome abnormalities. Some of these chromosome abnormalities are found with high incidence in populations from specific geographical areas and ethnic societies. Therefore, we studied the cytogenetic features of AML cases distributing in the contrasting societies of Iran and India. Material and Methods: Cytogenetic investigation were performed in various subtypes of AML with unstimulated short term culture and High Resolution Cell Synchronization with some modification. Results: Cytogenetically, Iranian M3 displayed a high frequency of t(15;17) than Indian (33.8% vs 19.3%) followed by M2 t(8;21) (27.7% vs 16.2%) and M1 t(9;22) (16.0% vs 11.3%) whereas, inv(16), 11q23 and numerical chromosomal aberrations in chromosome 5,7,8 occurred more frequently in Indian than Iranian. Conclusion: : Similarities and dissimilarities of present research work between two populations and other reports could be due to methodological variations, although geographic differences, different chromosomal sensitivity to breakage, populations with different ethnic origin must not be disregarded. These point to the need for extensive biological studies between Iran and India and various countries should help to provide epidemiological clues, that play a role in the pathogenesis of AML in different geographic regions of the world. These findings represents different cytogenetic characteristics of t(15;17) between the two populations. Extensive biological studies of AML in Iran and India and various countries to be needed to clarify the role of genetic as well as geographic heterogeneity in the pathogenesis of AML.

## O-023 THE FCTC IMPLEMENTATION AND CANCER PREVENTION IN GEORGIA

N. Pelkrishvili

Tobacco Control Alliance in Georgia

Objective: To learn correlation between the FCTC obligations and Georgian national legislation, particularly with tobacco control legislation. To find ways, terms and conditions for implementing the FCTC in national tobacco control legislation will affect cancer prevention in Georgia. Methods: Analyzing Georgian national legislation in tobacco control and authentically confirmed text of the FCTC. Analyzing data related cancer cases and find correlations between smoking restrictions of smoking in public places and cancer. Results: During last 10 years formed some legislation basis in tobacco control in Georgia. There were created law on advertisement, Act of President regarding tobacco control activities, law on licensing of tobacco production, law on agriculture and tobacco, law on tobacco control. First Law on tobacco control was adopted in 2003. Georgia becomes member of the FCTC since 2006. New changes of the obligations of the FCTC were adopted in the law on tobacco control in December 2008. During the period from 2003-2008 the rate of lung cancer and other locations of cancer cases related to smoking increased by 9%. The implementation level of smoking restrictions in public places was very low. It means that administering of law regulations are not effective at this stage and had no influence on change the picture regarding cancer control too. If the new regulations will be implemented and enter into force fully with appropriate administrative measures it give us tendency of decreasing of cancer cases during next few years.

## O-024 CASE SERIES ANALYSIS OF ORAL CANCER AND THEIR RISK FACTORS

A. Rashid Khan\*, N. Anwar\*\*, A. Abdul Manan\*\*\*

\*Penang Medical College, Malaysia

\*\*Penang General Hospital

\*\*\*Penang Cancer Registry, Penang State Health Department, Malaysia

Introduction: In Malaysia, Indians have the highest incidence of mouth cancer compared to other races, and females are more affected compared to males. Objective: To determine the risk factors associated with the oral cancer cases treated in the dental department of Penang hospital, Malaysia. Methodology: Medical reports of all oral cancer cases treated in the dental department of Penang Hospital from 1994 to 2004 were reviewed. Results: 46 oral cancer cases were treated in the department during this time period, 22 males and 24 females. The mean age of the patients was 61.2 years old. Indians were the majority (n=23; 50%) followed by Malays (n=12; 26.1%) and Chinese (n=11; 23.9%). 54.3% (n=25) had used quid, 39.1% (n=18) smoked cigarettes and 32.6% (n=15) consumed alcohol. Indians made up 76% of all quid users (p<0.05). 56% of all quid users used the combination of betel leaves, areca nut and lime (p<0.05). Females made up 81% of the quid users and smokers were solely males (p<0.05). Chinese were the majority among the smokers (54.5%) and alcohol consumers (54.5%). The most common presentation of the tumours was swelling, pain and bleeding (n=16; 34.8%). Oral mucosa was the commonest site of the tumours (n=31; 67.4%) followed by tongue (n=9; 19.6%) and jaw (n=6; 13%). Histopathologically, 91.3% were squamous cell carcinoma. Conclusion: Risk of cancer due to tobacco and betel quid use is high. Focused health promotion programmes such as prevention of betel chewing among Indian women and reduction of smoking among Chinese is advised.

## O-025 DETECTION OF CHROMOSOMAL ALTERATIONS IN ORAL CANCER USING MICROARRAY COMPARATIVE GENOMIC HYBRIDIZATION (ARRAY CGH) AMONG MALAYSIAN PATIENTS

N. Mat Amin\*, S. Syed Hussain\*\*, Z. Abdul Rahman\*, K. Tay\*\*\*, N. Jalil\*\*\*, T. Abraham\*\*\*, W. Wan Mustafa\*\*\*, R. Zain\*

\*Oral Cancer Research and Coordinating Centre (OCRCC), Faculty of Dentistry, University of Malaya (UM), Kuala Lumpur Malaysia

\*\*Unit of Cytology and Cytogenetic, Department of Pathology, Hospital Universiti Kebangsaan Malaysia (HUKM), Cheras Malaysia

\*\*\*Oral Health Division, Ministry of Health (MOH), Putrajaya Malaysia

This study aimed to determine chromosomal alterations and identify genes involved in oral cancer (OC) by using array Comparative Genomic Hybridization (aCGH). 20 frozen tumour tissues diagnosed with OC were mounted and macrodissected to obtain more than 70% of epithelial tumour tissue. The DNA was extracted using Qiagen DNeasy and Blood Kit (Qiagen GmbH) and amplified by GenomePlex® Complete Whole Genome Amplification (WGA) Kit (Sigma Aldrich®). The WGA DNA was then applied onto Unrestricted HD-CGH Microarray 4x44K microarray chips (Agilent Technologies Inc, USA) and digitalized by Agilent Genomic Workbench 5.0 (Agilent Technologies Inc, USA). Analysis from array CGH study showed that, the most frequent amplifications were detected at chromosome regions 8q24.3 (60%) and 8q11 (55%) while the most common deletions were detected at chromosomes regions 16p13.3 (60%), 19p13 (75%), 19q13 (75%), 21q22 (55%) and 22q13 (65%). The most common genes that amplified were DUSP22 (chromosome 6) and KIAA046 (chromosome 8) which signify 30% (n=6) of oral cancer cases studied. The most common deleted genes were detected at chromosomes 8 (30% n=6) (FBX025), 10 (30% n=6) (INPP5A, NKX6-2, C10orf92), 17 (25% n=5) (FAM57A) and 20 (25% n=5) (CDH4, TAF4, LSM14B). The amplification of OSCC on chromosome 8q24 and losses on chromosome 21q were consistent with previous findings from conventional Comparative Genomic Hybridization (CGH) from an earlier study. From these genes list, none have been reported linked directly with OC. DUSP22 linked to breast cancer, INPP5A and NKX-2 to brain tumour, FAM57A (lung cancer) and CDH4 to colorectal/gastric cancer. Genes related to region 8q24 and 21q should be investigated further to determine its relationship with tumorigenesis and development of OC.

## O-026 NATIONAL PLAN OF COLORECTAL CANCER SCREENING IN IRAN

R. Fatemi, E. Maserati, S. Shivarani, F. Nemati Malek, Y. Iranpour, S. Amin Sharifi, N. Gooran, A. Safaee, B. Moghimi-Dehkordi, M. Pourhoseingholi, F. Ghafarnejad, M. Soltani, M. Zali

Research Center of Gastroenterology and Liver Diseases, Shahid Beheshti University M. C, Tehran, Iran

Colorectal cancer (CRC) is one of the most prevalent cancers and leading cause of cancer mortality worldwide. In 2004, treatment costs for colorectal cancer were \$8.4 billion. According to report and documentation of Iranian annual Ministry of health of Islamic Republic of Iran, colorectal cancer is third common cancer in women and 5th in Iranian men. Also this cancer is increased during last

years. However it is also one of the most curable cancers if detected early. Evidence state colorectal cancer incidence and mortality are reduced with regular screening. National plan colorectal cancer screening with compliance new and comprehensive perspective is performing by Research center Gastroenterology and Liver Disease, Shahid Beheshti University in Iran. This article review principle strategies of colorectal cancer screening in the fields of preparation of medical record, data analyzing in intelligent software, pathology and colonoscopy, patient tracking and genetics. One of positive view of plan is special attention to genetics because this issue has impacted on high risk populations diagnostics. Generally aim of this survey preventive strategy of colorectal cancer high risk populations in Iran.

## **O-027 PREVENTION CAMPAIGN AGAINST ANTI- TOBACCO AND SMOKING IN NEPAL**

S. Kadariya

Cancer Council Nepal

Background: Smoking and tobacco use in its different forms is highly prevalent in Nepal especially among marginalized population of slum area. Almost all people used to be smoking: teenage in urban area and female in villages. Smoking seems quite great challenge to ban by government of Nepal. Second-hand smoking is also great challenge to cause cancer and other problem. Objectives: Currently there is more than 50 slums area in different locations of Kathmandu, the capital of Nepal. The main objectives of this project will be to find out the status and magnitude of smoking and tobacco users in these area, to initiate health education in order to prevent new users and to control using of tobacco among users. Methods: In first phase, the project site will be randomly selected. Structured questionnaire will be used to collect data from heterogeneous respondents (male, female and teenagers) by Cancer Council Nepal (CCN) volunteers. In 2nd phase, awareness and educational program will be done by poster, meetings, newsletters and advocacy. In 3rd phase, this project will also include screening program of the affected people by experts. The project will be launched and completed within the stipulated time as mentioned in proposal. Results: Members of CCN such as gynaecologists, epidemiologists, public health nurses, par-medics, assistant nurse, midwives, social workers, volunteers and administrative staffs will be involved in the study. This project will be a milestone to carry on further cessation in other areas of Nepal. Conclusions: We hope people become aware of the dangerous of smoking after this pilot study. We also would like to discuss and exchange ideas of the procedure to increase the success.

## **O-028 IN VITRO STUDY OF THAI MEDICINAL PLANT EXTRACTS ON CANCER PREVENTION; STRUCTURAL INVOLVEMENT AND MECHANISM OF ACTION**

V. Leardkamolkarn

Department of Anatomy, Faculty of Science, Mahidol University, Thailand

Several plant extracts and vegetables consumed in Thailand are recognized as health promotion agents and used in traditional medicine without scientific approval. To reassess bioactive activities of the plant extracts in cancer prevention and as potential chemotherapeutic agents, our studies focus on mechanisms of action of the compounds in human cancer cells. Plant flavones with various amount of hydroxyl and methoxyl groups were evaluated for toxicity, invasion inhibition, apoptosis induction and cell cycle arrest in HuCCA-1, RMCCA-1, HepG2 and Caco-2 cell lines in cultures. The results revealed variable degree of cell proliferation inhibition by compounds containing three, four and five methoxyflavone in different cancer cells. Both tri-methoxyflavone and penta-methoxyflavone compounds potentiated cell death induction. However, the mechanism of action of tri-methoxyflavone was directly via caspase-3 mitochondrial enzyme activation, whereas the penta-methoxyflavone action was indirectly via cell cycle arrest in association with cyclin B1 regulation. Apoptosis induction of penta-methoxyflavone was further enhanced by up-regulation of p53 protein and down-regulation of Bcl-2 expression together with decrease of caspases-3 enzyme activity. Tri-methoxyflavone compound also exhibited inhibitory effect on cancer cell invasion. The possible structural interaction between the compounds and cell surface molecules as well as the intracellular proteins controlling cell cycle was under extensive study to determine the mechanical involvement. The results suggested that besides poly-phenolic structure of flavonoids, the side chain molecules also participated in the mechanism of the compound actions.

## **O-029 SINGLE VISIT APPROACH TO PREVENT CERVICAL CANCER IN KARAWANG DISTRICT, INDONESIA**

F. Lambe, D. Soetikno, A. Sulistomo

Jhpiego

Cervical cancer in Indonesia is a serious problem whose impact is neither widely appreciated nor well documented. Existing services are expensive and out of reach of the average woman. There are only 277 pathologists and fewer than 100 cytotechnicians in the whole country (to serve an at risk female population of 55,500,000 million), which means that a Papsmear-only based program will never achieve sufficient coverage to make impact on cervical cancer-related morbidity and mortality. The coverage rate in 2003 was a mere 3% (Indonesian Cancer Foundation). With funding from Ford Foundation, JHPIEGO is providing technical assistance to the Indonesian Ministry of Health (MOH) to establish cervical cancer prevention services using Single Visit Approach (SVA) to screening with visual inspection with household vinegar (VIA) and cryotherapy. This approach is an evidence based effective method for detecting and treating precancer cervical lesions. It can be provided by trained midwives, nurse or doctors. Since August 2007, the program has established services at 4 health centers (Puskesmas) in Karawang, and with the district hospital as the referral point. To date, a total of 15,901 clients have been screened by puskesmas staff through the SVA, of which 69 were found to have cancer and has been refer to RSUD Karawang, 414 were found to have precancerous lesions and 158 underwent cryotherapy treatment. SVA is an effective and low cost approach compared to other method. Karawang district health office has also request for more funding to local government in scaling up for other puskesmas within Karawang.

## **O-030 A MALAYSIAN WEBSITE FOR PROMOTING CANCER PREVENTION TARGETING NUTRITION AND LIFESTYLE RISK FACTORS : [HTTP://WWW.NUTRIHEALTH-UPM.COM](http://www.nutrihealth-upm.com)**

M. Kandiah, Y. Ang, Z. Mohd Shariff, H. Abu Saad, Y. Chan



Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

**Introduction:** The World Wide Web (WWW) is now acknowledged as the 21st century tool for health communication and promotion. **Objectives:** This paper describes the development, implementation and feasibility of a website for promoting cancer prevention through healthful nutrition and lifestyle. **Methods:** The website originated from a 2-year workplace intervention among staff (n=339) of a Malaysian university. The website features include introduction, evidence based educational modules, related publications, a video-clip, contact us column, research committee, forum for discussion and links to local and international cancer agencies. Ten cognitive/behavioural modules in the national language were developed in accordance with the World Cancer Research Fund/ American Institute for Cancer Research (2007) guidelines for cancer prevention. Emails containing a link to a web page for downloading the PDF format of the module were sent weekly to participants for 10 consecutive weeks. The number of modules downloaded was monitored through requisition of a read-receipt report. **Results:** The feasibility study showed that 68% were pleased with the features of the website, 97% understood the educational contents, 57% found the module length to be adequate, 59% logged in 1-3 days/month and 88% expressed they would continue to seek more information from this site. **Conclusion:** This website was found to be a feasible channel for creating awareness on cancer prevention in a Malaysian worksite population. Future research should maximize the use of the internet to educate the general public for disease prevention. **Key words:** Cancer, website, prevention

### **O-031 CANCER CONTROL PLANNING BY CIVIL SOCIETY ~JAPAN'S CHALLENGE: ALL STAKEHOLDERS GATHERED FOR BETTER CANCER CONTROL PLANNING~**

R. Noritake

Health Policy Institute, Japan

Japan's cancer planning is now at the highest momentum with the CCPC, Cancer Control Promotion Council, proposing the Cancer Policy and Budgetary Recommendation. CCPC is a multi-stakeholder consultative body for the Minister of Health to pursue better cancer control in Japan. Japan's Cancer Control Act was enacted in 2007, and obligates the nation to establish CCPC including patient representatives. This abstract explains the methodology of the recommendation and the patient advocacy platform established by Health Policy Institute, Japan to facilitate this grass-rooted policy recommendation. **Objectives** On March 19, 2009, a Cancer Policy and Budgetary Recommendation was submitted to the Minister of Health by CCPC's own members. The scene was widely broadcasted across the nation. The recommendation is unique since CCPC's working group decided not to discuss exclusively amongst themselves; instead they asked the entire nation for better cancer control planning ideas including nation-wide survey and town meetings. **Methods** The working group implemented a nation-wide survey via regional cancer control planning councils. Patients, doctors, co-medicals, and academics gathered to respond to the survey. They also hosted two town meetings in Tokyo the capital, and Sendai the biggest city in northern mainland Japan. Beforehand, Health Policy Institute, Japan, an independent think-tank, has established its Commission on Citizens and Health, a patient advocacy platform for patient centered health policy in 2007, and has been active to foster patient advocacy in Japan. CCPC's patient representatives are all the participants of HPI's Cancer Policy Summit, biannual assembly for regional patient representatives for sharing the best practices. These empowered patient advocates played a vital role to implement this grass-rooted policy proposal. HPI also provides overseas training and e-learning program for patient advocates. **Results** Reflecting the working group's outcome including vivid voices of patient advocates, CCPC proposed a drastic change of policy and budgetary planning process, from top-down to bottom-up. Also, they proposed 70 comprehensive recommendations based on the demands. Not only patient or community-centered, but also multi-stakeholder-centered cancer control planning was celebrated in Japan. **Conclusion** The Ministry of Health and CCPC have agreed to maintain this planning method and the CCPC's working group is currently formulating a revised recommendation for 2011. CCPC's cancer policy planning method can be duplicated by any governments and in any regions to accelerate the World Cancer Declaration. Political initiatives are still expected to fulfill the recommendations.

### **O-032 PREVALENCE OF HUMAN PAPILLOMA VIRUS (HPV) INFECTION AND PRE-MALIGNANT LESIONS OF CERVICAL CANCER AMONG WOMEN LIVING IN AREAS OF HIGH ARSENIC EXPOSURE**

S. Roychowdhury\*, S. Biswas\*\*, M. Siddiqi\*\*

\*Cancer foundation of India

\*\*Cancer Foundation of India

**Introduction & Objective:** Several districts in West Bengal (India) are facing high level ground-water Arsenic contamination. While Arsenic is known to be a human carcinogen with epidemiological evidence showing dose-response relationship with increased risk of cancers of Lung, Liver, Bladder, Kidney, Skin in exposed population globally, there is no report on the increasing incidence of cervical cancer or its pre-cancer lesions. **Methodology:** In order to understand the carcinogenic role of long-term arsenic exposure in cervical cancer, asymptomatic women (30-64 yrs) were screened from High arsenic (100- 300 µg/l) and arsenic-free (below 25 µg/l) villages using Visual inspection with Acetic acid and Lugol's iodine solutions followed by colposcopic examination of cervix. A punch-biopsy was taken from the suspicious area from all screen positive women for histological evaluation. The high risk HPV infection was detected using hybrid-capture assay (HC-II) **Results:** Out of 1040 women screened from high arsenic villages, 95 were found to be Acetic acid / iodine positive of which 22 had CIN lesions (2.4 %) and 3 had invasive carcinoma cervix (0.29 %). From 735 women screened from Arsenic free villages, 62 were positive with 12 CIN cases (1.6 %) and 1 case of invasive cancer (0.13 %). Of the screen positive women in high Arsenic area, 12 showed high-risk HPV infection (12.6%) compared to 4 cases (6.45%) from arsenic-free area. Among the early lesions from high arsenic area CIN II/III were 21.7% where as such lesions women from arsenic-free area **Conclusions:** Results from this on-going study will be discussed.

### **O-033 IS A POSITIVE ASSOCIATION OF EDUCATIONAL LEVEL WITH BREAST CANCER RISK CONFOUNDED BY PARITY AMONG WOMEN?**

K. Hajian-Tilaki\*, T. Khavesh-Ahangar\*\*

\*Babol University of Medical Sciences

\*\*Babol University of Medical Sciences

**Background and objective:** A high educational level has been found to be a risk factor of breast cancer risk. However, it is not clear whether such association is confounded by individual risk factors of breast cancer in particular parity. **Methods:** We conducted a

case-control study of 100 confirmed histologically breast cancer cases and 200 age matched controls in genitally homogenous population, in Babol, northern Iran. The demographic, reproductive and life style data were collected by in person interview and clinical examination. The education level was categorized at 3 levels (illiterate and primary level, elementary and high school level and above high school). The adjusted odds ratio was estimated using multiple logistic regression model after controlling several potential confounding factors such as parity, age at first pregnancy, menarche age, physical activity, smoking, BMI, duration of breastfeeding, family history, residence area, abortion and menopausal status. Results: The unadjusted odds ratio showed a non-significant positive association of educational level with breast cancer. However, after controlling several potential confounding factors, the higher education level was significantly corresponded with a decreased in breast cancer risk (OR=0.17, 95%CI:0.06-0.45 and OR=0.10, 95% CI:0.03-0.34 for education level at high school and above high school respectively compared to illiterate and primary level). Conclusion: The inverse association of educational level with breast cancer risk observed in this study appear dissimilar in direction to education inequalities found in breast cancer risk in other western countries. The present findings provide a rationale for screening at early age in women with low

#### **O-034 STUDY OF EFFECT OF EDUCATIONAL PAMPHLET IN THE IMPORTANCE OF CLINICAL BREAST EXAMINATION IN TEACHERS OF YASUJ CITY, IRAN.**

Z. Mohebbi

:- Shiraz Medical Science University – Iran

Introduction & purpose: According to the American cancer Association recommendation one of the effective secondary prevention for breast cancer is CBE. This study was hold in order to determine the effect of educational pamphlet in the importance of Clinical Breast Examination in teachers. Materials & methods: this is a semi – experimental study in which there were 200 teachers which were randomly divided in two groups of 100. One educational pamphlet was given to the case group. Then number of teachers attending to the centers was determined after two months. Results: findings showed that, in each control & case group, 9% of samples had breast hygienic problem. Also , 20% of case group samples were attending for CBE before educating them but, after giving education the number of attendance were 58% . Meanwhile, chi-square statistical test, showed significant relationship between attending after education in two control & case groups (p=0.00). Conclusion: Giving attention to the produced results, with educational programmes in large level, breast problems can be diagnosed & disease progress can be prevented. Also, we can take positive step in increasing women's knowledge & health behavior in the society , becoming successful in continuo's performance & regular breast cancer screening programme Key Words: Educational pamphlet, Breast cancer , Attending for CBE ±

#### **O-035 HEPATITIS VIRUSES AND RISK OF CHOLANGIOCARCINOMA IN THE NORTHEAST THAILAND**

P. Srivatanakul\*, S. Honjo\*\*, P. Kittiwatanachot\*\*\*, A. Jedpiyawongse\*, M. Miwa\*\*\*\*

\*National Cancer Institute, Bangkok, Thailand

\*\*Fukuoka National Hospital, Fukuoka, Japan

\*\*\*Nakhon Phanom Hospital, Nakhon Phanom, Thailand

\*\*\*\*Nagahama Institute of Bio-Science and Technology, Shiga, Japan

Introduction and Objectives: Liver cancer is the most common cancer in males in Thailand and the third in females. A high incidence of cholangiocarcinoma (CCA) is estimated in northeast of Thailand. Chronic infection with *Opisthorchis viverrini* (OV) is the major risk factor for development of CCA. It has been demonstrated that HCV infection is a risk factor for CCA in non – endemic area of OV infection. We examined the association of HBV and HCV and risk of CCA in northeast Thailand. Methods: All cases of CCA were recruited between 1999 and 2001 from Nakhon Phanom provincial hospital and all community hospitals in the province. One control per case was selected, matched by sex, age (±5 years) and residence. 106 case-control pairs were obtained. Anti-OV, HBsAg, and Anti HCV were determined by ELISA. Results: Among 103 age-sex-place of residence matched case – control pairs, there were 7, 0, 0, 96 pairs for anti-HCV (+) case vs. (-) control, (+) case vs. (+) control, (-) case vs. (+) control and (-) case vs. (-) control combinations (OR = 7/0). Among 106 matched pairs, there were 9, 2, 4, 91 pairs for the similar four combinations of HBsAg OR = 2.25 (95%CI: 0.63 – 10.00). If the subject had anti-HCV and/or HBsAg, the OR for CCA was 4.00 (95%CI: 1.29 – 16.44). After adjustment for anti-OV, risk for HBsAg and/or anti-HCV positive was marginally increased. Conclusions: HBV and HCV may also play role in the development of CCA in northeast Thailand.

#### **O-036 A PUTATIVE PRO-OXIDANT MECHANISM OF DIETARY POLYPHENOLS IN CANCER CHEMOPREVENTION**

M. Ullah, H. Khan, H. Zubair, S. Hadi

Department of Biochemistry, Faculty of Life Sciences, A. M. U. , Aligarh, India

Polyphenols are important constituents of plant-derived human diet and a number of these are considered to possess chemopreventive and therapeutic properties against cancer. These include resveratrol (found in red grapes and red wines), epigallocatechin-3-gallate or EGCG (present in green tea) and genistein (a soy isoflavone). They are recognized as naturally occurring antioxidants. However, we believe that antioxidant properties of these compounds may not fully account for their anticancer effects. We have proposed a hypothesis where we explain that the prooxidant, rather than the antioxidant activity of these compounds, is important for their anticancer effects. Such a prooxidant effect is induced in the presence of transition metals, such as copper. Using Comet assay, we have shown that polyphenols are able to mobilize endogenous copper, leading to oxidative breakage of cellular DNA. Further, we have demonstrated that polyphenols are able to degrade DNA in cell nuclei and that such DNA degradation is inhibited by copper chelators neocuproine and bathocuproine (both of which are able to permeate the nuclear pore complex), but not by compounds that specifically bind iron and zinc (desferrioxamine mesylate and histidine, respectively). Moreover, we have also shown that neocuproine inhibit the cytotoxicity of polyphenols against breast cancer cells. It also inhibited the polyphenol induced apoptosis in these cell lines, whereas desferrioxamine mesylate and histidine failed to do so. Copper is a major metal present in nuclei and it is well established that tissue, cellular and serum copper levels are considerably elevated in various malignancies. Therefore cancer cells may be more subject to electron transfer between copper ions and polyphenols to generate reactive oxygen species. Such a mechanism better explains the anticancer properties of dietary polyphenols, as also their preferential toxicity against cancer cells. Studies on the chemopreventive potential of such polyphenolic compounds assume significance as they are constituents of human diet and possess negligible/low toxicity even at relatively higher concentrations. We have proposed a novel mechanism of action of these compounds, which could be further explored, for therapeutic targets and drug

design.

### **O-037 DIETARY AND PHYSICAL ACTIVITY FACTORS CAUSING PROSTATE CANCER AMONG MALAYSIAN MEN: FINDINGS FROM A CASE CONTROL STUDY**

S. Shahar, S. Abas, N. Abu Hasan Shaari, R. Rajikan, N. Rajab, Z. Md Zainudin

Universiti Kebangsaan Malaysia

Epidemiological evidences on the roles of dietary and lifestyle factors on the occurrence of prostate cancer (PC) are inconsistent and remains unclear. Therefore, a case control study has been conducted to determine the relationship between these factors with PC risk among Malaysian men. 105 subjects (35 cases, 70 controls, matched for age and ethnicity) participated. Social and health data, dietary pattern and physical activity as assessed using International Physical Activity Questionnaire (IPAQ) and lifetime physical pattern questionnaire were obtained through an interview. In addition, 3mL fasting venous blood was drawn to assess lymphocytes oxidative %DNA damage using Alkaline Comet Assay. Results indicated that % of energy from fat in cases was higher than controls ( $p < 0.05$ ). Mean intakes of fruits and vegetables, fruits, vegetables and lycopene were higher in controls than cases ( $p < 0.05$  for all). Subjects consumed at least 3 servings of fruits and vegetables/day reduce PC risk up to 6.5 times [Adjusted OR 6.52 (95% CI 2.3-17.8)] ( $p < 0.05$ ). Lycopene intake less than 2498 mcg/day (50th percentile) increased PC risk by double [Adjusted OR 2.5 (95% CI 0.99-6.31)]. Subjects who had not engaged with physical activities at 45 to 54 years old had a three fold risk of PC [Adjusted OR 2.9 (95% CI 0.8-10.8)] ( $p < 0.05$ ). No oxidative damage was observed among subjects. In conclusion, high intake of fruits, vegetables and lycopene rich food were found to be chemo protective, whilst, high fat intake and not physically active at the age of 45 to 54 years old were carcinogenic.

### **O-038 AN AIRBORNE CARCINOGEN REMOVAL USING BIOPOLYMERS**

A. Tirgar\*, F. Golbabaei\*\*, K. Nourijelyani\*\*\*, J. Hamedi\*\*\*\*, S. Shahtaheri\*\*

\*Dept of Social Medicine and Health, Babol University of Medical Sciences, Iran

\*\*Dept. of Occupational Health, School of Public Health, Tehran University, Iran

\*\*\*Dept. of Epidemiology and Biostatistics, Faculty of Public Health, Tehran University, Iran

\*\*\*\*Dept. of Biology, Faculty of Science, Tehran, Iran

Introduction and Objectives: Hexavalent chromium, Cr (VI), is a known mutagen and carcinogen. Chromium electroplating plants are the major sources of atmospheric chromium. On the other hand, capability of metal adsorption from solution by biopolymers is well documented. . The feasibility of a new method to remove of this pollutant using three biopolymers (Alginate, Chitosan and Carrageenan) was investigated. Methods: A special electroplating bath with producing homogenous atmosphere was used as a Cr (VI) generator. Using two sampling trains (with and without biopolymer) and homogenous atmosphere, airborne Cr (VI) were flown through sorbent media. Chromium concentration in the samples was determined by flameless atomic absorption spectroscopy. Influences of effective factors (pH, Temperature, Pollutant concentration, sorbent Concentration and Impaction velocity) were studied using Taguchi and One factor at a time statistical methods. Results: Our results showed that the highest Cr (VI) ions removal by biopolymer beads (32-45%) were happened at higher temperature (20-35°C), higher biosorbent concentration (10-20 g/l), lower impaction velocity (1.12-2.25 m/s), lower pollutant concentration (10-500 µg/m<sup>3</sup>), and pH 5, 6, and 9 respectively. Conclusion: According to the results, Alginate, Chitosan and Carrageenan could be effective for Cr (VI) ions removal and air purification.

### **O-039 ANTIPROLIFERATIVE ACTIVITY OF ESSENTIAL OILS ISOLATED FROM MENTHA SPP.**

I. Demirtas\*, I. Telci\*, A. Sahin\*\*, H. Aksit\*

\*Gaziosmanpasa University

\*\*Cankiri Karatekin University

Cancer is one of the major causes of death in developed countries, together with cardiac and cerebrovascular diseases [1]. Cancer is clinically treated by surgery, radiotherapy and chemotherapy. In our previous work, Sideritis libanotica was carried out as dose-dependent assay starting from 25 µg/mL to 250 µg/mL for different anticancer cells. The extract found to be active against Vero, HeLa and C6 cancer cell lines with IC<sub>50</sub> values [2]. Figure: Antiproliferative activity of Mentha spp. against Vero, HeLa and C6 cells. There is no report on the antiproliferative activity of essential oils of wild growing Mentha spp. The present study aimed to investigate the antiproliferative effects on Vero, HeLa and C6 cells of essential oils obtained from different wild growing Mentha spp and cultured in the Agriculture (see Figure and Scheme). The compounds were identified with GC-MS, NMR and other techniques. Scheme: Piperitone oxide as an active compound against Vero, HeLa and C6 cells References: [1] World Health Organization (1998). World Health Statistics Annual 1996, World Health Organization, Geneva. [2] Demirtas I., Sahin A., Ayhan B., Tekin S., Telci I., Rec. Nat. Prod., 3:2, 104-109 (2009).

### **O-040 NATIONAL CANCER CONTROL PLANNING: THE JORDAN EXPERIENCE**

M. De Sabata, R. Diab, T. Nusairat, N. Obeidat, S. Khatib

King Hussein Institute for Biotechnology and Cancer (KHIBC)

Introduction and objectives Jordan is a middle-income country of 6 million people in the Middle East. Cancer has been recognized by national authorities as a public health issue requiring urgent attention. A national cancer control planning initiative was therefore initiated to tackle this problem, spearheaded by the Ministry of Health and the King Hussein Institute of Biotechnology and Cancer. Methods An initial stakeholder meeting was convened late in 2008 to inform and involve all national interested parties in the nascent initiative. Major challenges and preliminary priority action areas were identified at this meeting. Detailed information on which to refine priority action areas was collected in 2009 with the collaboration of national stakeholders. Results Substantial information for a situation analysis on which evidence-based action can be based was collected. Information gaps were identified, mostly data to be generated. This additional data will allow an in-depth situation analysis and be extremely beneficial to the delivery of cancer control actions. Conclusions The process of gathering and generating information for an evidence-based cancer control plan yielded increased collaboration among players and started buy-in for the completion of the planning process as well as the eventual finalization and implementation of the national cancer control plan. A second stakeholder meeting will convene in 2010 to finalise

priority action areas for the national cancer control plan, appoint responsible officers at all levels, and integrate the national cancer policy in the national budgeted health plan.

#### **O-041 KNOWLEDGE, ATTITUDE AND PRACTICE OF BREAST SELF EXAMINATION AMONG RURAL WOMEN IN EKITI STATE, NIGERIA.**

T. Ola

University of Ado-Ekiti

**Background/Objectives** Cancer remains a major health problem in many developing countries including Nigeria. In Ekiti State, there is currently virtually no information on the incidence and prevalence of breast cancer. The main aim of the study therefore was to evaluate the knowledge, attitudes, and actual practice of BSE among rural women in the study area. **Method** This descriptive cross sectional study to examine the knowledge, attitude and practice of BSE among rural women in Ekiti State carried out between October and November 2009 using both qualitative and quantitative methods. A structured questionnaire designed by the researchers and administered by research assistants was used in collecting the quantitative data. Statistical analysis was done using Statistical Package for Social Sciences and information from focus group discussions and in-depth interviews were transcribed and organized under broad headings that depict different aspects of the discussions. The transcribed information were analyzed descriptively (qualitatively) and used to explain results of quantitative analysis where and when necessary. **Results** Majority of the respondents were not aware of BSE. Attitude of respondents to BSE was positive but practice was low, with a fairly high degree of acceptability of the idea. The concept of cancer from the respondents view was characterized by mixed perceptions shrouded in mystery. **Conclusion:** There was poor knowledge of cancer and practice of BSE was low in the study area though towards BSE was positive. It is recommended that public education and awareness on the importance of BSE be intensified using the mass media.

#### **O-042 FOR BETTER CANCER CONTROL, WHETHER WE NEED A GLOBAL FRAMEWORK CONVENTION ON ALCOHOL CONTROL?**

L. Mula-Hussain, A. Salim, S. Hashem, I. Jaradat, A. Al-Mousa

King Hussein Cancer Center

**INTRODUCTION AND OBJECTIVES:** It is well known that there are causal relationships between alcohol consumption and more than 60 types of diseases, cancers and injuries, however, relative to these harms, alcohol is not high on the global health agenda like tobacco, AIDS and H1N1 infection, nor international policy is in place. For this reason, this review will try to raise the issue of alcohol burden worldwide, in order to find a suitable way to control it. **METHODS:** review of some of the available literature. **RESULTS:** Alcohol consumption is an optional habit (with some benefits and huge risks to human body and life) and it is increasing rapidly in many countries worldwide. Despite the clear facts of the contribution alcohol makes to the global burden of disease and economic costs, focus on alcohol control is inadequate internationally and in most countries and the researchers here will try to make alcohol control a priority more and more. **CONCLUSIONS:** •Burden of alcohol associated diseases and injuries, is substantial in many countries. •Lessons from some communities (like in muslim communities where alcohol is prohibited by religion) probably have a role in controlling alcohol burden. •Promoting Health Education toward alcohol control in all age groups especially the young group. •An effective national and international responses will need not only governments, but also NGOs. •International health policy, in the form of like a Framework Convention on Alcohol Control, is needed like Framework Convention on Tobacco Control.

#### **O-043 ABSTRACT: ARE YOU BEING SERVED? (7 CRITICAL NEEDS TO FOSTER EFFECTIVE CANCER CONTROL)**

R. Sivaram

Prashanti Cancer Care Mission

This abstract highlights lessons learnt to address emerging issues in community breast health and tobacco free initiatives, reaching cancer prevention to the community. 7 critical needs to foster effective cancer control are identified: **Objectives:** To reach community breast health and tobacco free initiatives in the community through awareness programs. **Method:** 1. Pro-active Government- NGO nexus built on common goals, shared routes and multiple players- to establish uniform, measurable programs and interface between education- health - community and key stakeholders. 2. Nodal NGOs to train in advocacy, holistic education and referral for early detection/treatment/follow-up. Total NGO experiences to prepare consensus guidelines. 3. Community Monitoring of Health Services adapting National Rural Health Mission database to monitor Community Based Enquiry of Health services for cancer control. Nodal NGOs could 'provide human resource, logistics and administrative set-up for community monitoring program'. \* 4. Perception change from bio-medical to socio-medical, disease orientation to wellness, curative to preventive-curative, limited to multiple agenda. 5. Horizontal programs dovetailing with NRHM. Our TFI training indicated need to go beyond tobacco module to address teacher-adolescent perception disparities. To identify with and understand target groups is pre-requisite to enable risk reduction. 6. Minimum Infrastructure: Place, ambience, privacy, local funds, trained personnel in situ for program sustenance and follow-up. 7. Constellation-based approach: An ethical dilemma in CBHE program is provision of services. Education without clinical services is wasted. Prashanti has embarked on an ambulatory constellation approach- providing CBHE, counseling and opportunistic screening.

## **Tobacco**

#### **O-046 THE CONCORDANCE OF SELF-REPORTED WITH MEDICAL CHART INFORMATION REGARDING CANCER DIAGNOSIS AND TREATMENT: A REPORT FROM THE SHANGHAI BREAST CANCER**

## COHORT STUDY

V. Gupta\*, K. Gu\*\*, Z. Chen\*\*\*, W. Loo\*\*, X. Shu\*\*\*, Y. Zheng\*\*

\*Columbia University, College of Physicians & Surgeons

\*\*Department of Cancer Control & Prevention, Shanghai Municipal Center for Disease Control and Prevention

\*\*\*Division of Epidemiology, Vanderbilt University School of Medicine

Epidemiologic studies often rely on data gathered from patient self-report. However, not only do self-report instruments such as interviews or questionnaires depend on adequate patient comprehension and recall ability, they also are affected by the wording of questions, the length of recall required, and the interview setting. Therefore, validating the accuracy of these information-gathering tools is important for the interpretation of subsequent results. Using data collected from the Shanghai Breast Cancer Survival Study (SBCSS), a large, population-based, prospective cohort study of 5,042 women who were diagnosed with breast cancer in Shanghai, China, the authors compared the concordance of patient questionnaire responses with corresponding medical chart information across several disease and treatment-related variables. Of 5,042 SBCSS participants, medical chart information was available for 4,948 (98.1%) women. Concordance between medical chart and patient self-reported information was excellent for the majority of disease-related variables including: diagnosing hospital (agreement: 98.7%), surgery conducted (agreement: 94.0%), ER/PR (estrogen-receptor/progesterone receptor) status (agreement 94.5%), and tumor position (agreement 98.2%) as well as for important calendar dates such as the dates of diagnosis, surgery, and the date of first receiving chemotherapy. The 10 most commonly used chemotherapeutic drugs were all reported with agreement values of at least 80%. Although the patient survey was collected, on average, approximately 6 months after medical chart information was obtained, our study found excellent validity in patient self-reported information among a variety of disease and treatment-related variables, suggesting its utility as an important source of clinical information for both epidemiological research and patient care.

## O-047 CANCER PREVENTION BY MEANS OF SMOKING CESSATION

V. Levshin

Russian cancer research center

Tobacco is the leading of the proved sources of carcinogens in the present human population. The smoking prevalence in Russia is one of the highest in the world, 63% of men and 14 % of women are current smokers. Consequently about 50% of total male cancer deaths in the country attributed to smoking. The purpose of the study is to explore possibilities for cancer prevention through smoking cessation implementation. The special survey in Moscow covered more than 1000 adult current smokers shown that 85% of them knew that smoking can increase cancer risk. 60% of all interviewed current smokers, in age group over 40 years even 80%, want to quit smoking. In view of the told above the smoking cessation group session (SCS) method was implemented and evaluated. About 1650 smokers visited SCS. Results of these smokers follow-up show that 41% of them stopped smoking for different periods and 15% remained abstinent more than 12 months. 18% of the smokers had reduced their daily consumption of cigarettes by more than 50% and 95% of the smokers who could not to quit or were after relapse of smoking continued to keep motivation to quit smoking. The main determinants of long term quitting are past quitting experience, high level of motivation to quit smoking and using complex smoking cessation therapy. It is concluded that smoking cessation assistance is feasible and effective way of cancer prevention. These findings have implications for intervention strategies in public health projections.

## O-048 STUDY ON TOBACCO USE AND AWARENESS AMONGST MARGINALISED CHILDREN IN INDIA

S. Raval, S. Maudgal, N. More

Cancer Patients Aid Association

Background: The current study entailed a survey of children from the lower socio-economic strata of rural and urban regions of Maharashtra and Assam who are vulnerable to tobacco usage. Over 1700 children were checked for precancerous lesion and 1004 surveyed for tobacco habits and awareness. Aims: The objective of the survey was to determine and report on all variant factors affecting the use of tobacco amongst the under privileged children population. The aim of the clinical check-up was to detect precancerous lesions in the tobacco-using children at an early treatable stage. Methods: Awareness lectures and ENT camps were conducted at 12 organisations/ community centres. A cross section of children was interviewed to understand tobacco use. All children were screened for precancerous lesions. Children with suspicious oral lesions were sent for further evaluation at a nearby diagnostic cancer facility. The survey was conducted by trained social workers. Results: The percent of tobacco users in urban Mumbai was extremely low at 4.8% compared to rural Kasara (36%) and Assam (76%). 74.6% of the children were aware that tobacco use is dangerous and harmful to health. The average age of initiation was 9 years. 253 out of the 1004 surveyed were tobacco users, 79% were males. Of the 1700 children screened, 23.5% presented with precancerous oral lesions. Conclusion: This study addresses the tobacco habits of a typical sample of marginalised children in India and their need for effective interventions aiming to reduce the burden of tobacco-related cancers by control at the point of initiation.

## O-049 FACTOR ASSOCIATED WITH QUIT MAINTENANCE AMONG ADOLESCENT QUITLINE USER IN KOREA

H. Kim, M. Lim, E. Yun, J. Oh, E. Park, S. Shin

National Cancer Control Institute, National Cancer Center

Background : The effective of telephone-based quitline services has been well established regarding efficient process and easy access. Purpose : To improve Quitline program for adolescents, we identified factors associated with quit maintenance among Quitline adolescent users. Materials and methods : 642 adolescents(491 boys and 151 girls) who registered to Quitline from April 2006 to July 2009 were included in the observational study. Information on demographic characteristics, smoking-related behaviors, reasons of cassation, self-efficacy for quitting, and the presence of supporter were collected when they registered. Subjects have been followed up until they relapse or end of this study under the schedule of quit protocol. We used Cox proportional hazards model to estimate the predictors associated with quit maintenance or relapse. Results : Quit pressure from family or intimate (HR=1.71, 95%CI=1.17-2.49) and the number of past quit attempt (HR=1.58, 95%CI=1.18-2.12) were investigated as statistically-significant hazardous factors for quit maintenance in boys, and higher self-efficacy for quit showed preventive effect on relapse both boys (HR=0.69, 95%CI=0.51-0.94) and girls (HR=0.53, 95%CI=0.31-0.91). Nicotine dependence was not a significant factor associated with quit maintenance (boys : HR=1.06, 95%CI=0.79-1.44; girls : HR=1.23, 95%CI=0.73-2.08). Conclusion : To maintain abstinence among adolescent Quitline users, increasing self-efficacy, restraining pressure, and giving intensive and appropriate help in the first

try for quit should be considered as important factors. Further study with relatively bigger sample size and longer follow-up period should be done to get more concrete evidence for these results.

#### **O-051 SMOKING AND CANCER DISEASES IN GEORGIA**

G. Bakhturidze

Georgian Health Promotion and Education Foundation

Objective: Tobacco consumption in Georgia has increased to alarming proportions since 1990. The research addressed in the study of epidemiology of tobacco production consumption during of last 5 years: 2003-2008 and correlation with cancer diseases. Methods: Quantitative research structured interviews. For choosing of population was used cluster method. A group of interviews was used for this purpose, their training and selection were conducted. The research group's professional composition: epidemiologists, medical doctors, sociologists, psychologists, teachers. Results: There were researched population from 13 to 70 years old. These researches have shown that in Georgia smoking rate is nearly 59,8% in men and 14,9% in women population in 2007-2008. It is 36.1 % of our population. In comparison with the 1985 the number of smokers among youth and among young women increased 3 times. In the year 1985 smoking rate in Georgia was 42,8% men and 4,1% women. In 2008, 1.310 smokers had lung cancers; 1.630 - other location cancers; 9.800 - bronchitis, emphysemas and asthma. To compare such data with results we get in 2003 the rate of cancer increased by 9%. In year 2008 in Georgia 11.000 people died because of smoking, which is 24% of total mortality.

#### **O-052 THE IMPACT OF TOBACCO AND THE BURDEN OF CANCER**

M. Daher

President, Lebanese Cancer Society

Cancer is a leading cause of death worldwide. From a total of 58 million deaths worldwide in 2005, cancer accounts for 7.6 million (or 13%) of all deaths; more than 70% occurred in low and middle income countries. Tobacco-related diseases kill half of all smokers, and so, tobacco smoking is the largest single preventable cause of death and disease. Tobacco's role in increasing the chance of lung cancer is one of the most widely known of tobacco's harmful effects on human health. Environmental tobacco smoke (passive smoking) causes also lung cancer. Tobacco is also an important risk factor for several cancers: throat, mouth, pancreas, bladder, stomach, liver, kidney, breast and other types; Each of these will be described and the impact of tobacco on its incidence will be defined. Tobacco use is the single largest preventable cause of cancer in the world. 40% of cancer can be prevented by a healthy diet, physical activity and not using tobacco. Because cigarette smoking and tobacco use is an acquired behavior, one that the individual chooses to do, smoking is the most preventable cause of premature death in our society. A comprehensive strategy including bans on tobacco advertising and sponsorship, tax increases on tobacco products, and cessation programmes can reduce tobacco consumption in many countries. The WHO Framework Convention on Tobacco Control, adopted in May 2003, aims to curb tobacco-related deaths and disease.

#### **O-053 THE TOBACCO EXCISE SYSTEM IN INDONESIA: HINDERING EFFECTIVE TOBACCO CONTROL FOR HEALTH**

B. Sarah\*, A. Abdillah\*\*

\*World Health Organization

\*\*Demographic Institute, University of Indonesia

Background : Tobacco price and tax increases are considered the most cost-effective means to reduce consumption and address the burden of tobacco-attributable morbidity and mortality. Objective: To describe the tobacco excise system in Indonesia and its impact on consumption and health. Method: Literature reviews of excise tax and price structure for tobacco products were obtained from Ministerial Decrees of MoF. Brand-specific rates for 2008 and 2009 are derived from surveys, published data in market reports, and data reported by the MoF. Result: 1. Tobacco tax system The tobacco excise structure varies by 11 types of tobacco products, mode of cigarette production, and firm size as measured by production level. The tax is based on the government's retail sales price (HJE) and derived from reports detailing the cost components for each brand produced. 2. Current excise rates The customs law caps excise rates for tobacco at 57 per cent of the government's banderol price (HJE), which is firm and brand specific. However, the MoF set the minimum HJE for the brand-specific range by type of product and firm production scale. 3. Industry responses Differential tax rates by production scales provide an incentive for firms to reduce their production levels to fall within lower tax brackets. Conclusion: This paper shows that the structure and implementation of the excise system can reduce or negate the impact of a tax increase on consumption. The design of the Indonesian excise system maintains the affordability of tobacco products.

#### **O-054 IMPLEMENTING SMOKE FREE LEGISLATION IN DEVELOPING COUNTRIES ; THE NIGERIAN EXPERIENCE**

O. Makanjuola

Nigeria Tobacco Control Alliance

Background : Smoking is a major contributor to morbidity and preventive deaths amongst the people in Nigeria. Exposure to second hand smoke is now one of the major causes of cancers in Nigeria. The absence of adequate legislation to protect the populations in major Nigeria cities has been of the major contributors to the rise of cancer cases in the country. The only legislation which sought to guarantee the safety of Nigerians against exposure to Second hand tobacco smoke was the Tobacco control Act 20 of 1990 which banned smoking in public places . however this law had not been properly implemented due to successive change in governments and the negligence of public officials in Nigeria in curbing the tobacco menace for 20 years. Methods In January 2009, the Nigeria Tobacco Control Alliance in partnership with the administration in the Federal Capital Territory organised a training workshop for the special task force on implementation of the Smoke Free law giving information on the areas covered by the law; their role and responsibilities. Another special training session was organized for Restaurant and bar owners with an insight into their important role as Smoke Free Agents. The Media was also used to create maximum awareness on the commencement of the implementation. Conclusion Since the commencement of the partnership with the task force the smoking rate has been reduced thus proving that Nigeria can effectively implement smoke free laws

### **O-055 THE NEED TO PROTECT CHILDREN FROM TOBACCO IS A GLOBAL PAEDIATRIC CONCERN**

H. Awnallah

National Cancer Control Foundation (Yemen)

Tobacco has major adverse consequences for children in developing countries. Poverty related challenges such as lack of access to potable water, infectious diseases and malnutrition, all lead to viewing the issue as a lower priority health threat. Tobacco use is a global problem; worldwide there are almost 1 billion male and 250 million female smokers. Globally, tobacco is marketed to children and the tobacco industry recognizes that new smokers must be recruited to replace those who quit or die from tobacco-related diseases. Every day an estimated 82000 to 99000 young people start smoking; many are children under the age of 10 and most reside in low-or middle-income countries ; prevalence in some of these countries reaches has reached 77% and 29% amongst males and females >15 years of age, respectively . This alarming rate clearly represents an urgent call for action through utilizing every available means to combat tobacco and the industry's effective and damaging promotional practices which have are putting the lives of over 50% of many countries' children at risk. It also calls for international partnerships and alliances to combat this global paediatric epidemic. Actions are needed to call attention to the harm that tobacco causes to children, disseminate best practices to reduce exposure of children to tobacco and second-hand smoke, and train clinicians in advocacy for policy change and effective methods of counselling parents regarding these issues. There is also a need to ensure relevant local laws provide adequate protection to children and that such laws are properly enforced and that relevant stakeholders participate in the process.

## **Diagnostics**

### **O-056 INTEGRATIVE PROTEOMICS AND TRANSLATIONAL STUDIES FOR THE IDENTIFICATION OF REGULATORS OF EARLY STAGE BREAST CANCER INVASION**

P. Alaoui-Jamali, D. Xu

Departments of Oncology/Medicine and Segal Cancer Center, McGill University, Montreal, Canada.

Background. Primary breast cancer invasion of neighboring tissue structures and distant organs is an ominous event in many patients at primary diagnosis and is unpredictable. Presently, biomarkers and signaling pathways that initiate and drive breast cancer invasion beyond primary sites remain poorly understood, which hampers discovery of efficient approaches for the prevention/management of metastatic disease. This study aims at dissecting and targeting novel breast metastasis regulators. Methods and results. We carry-out functional proteomics (LC-MS/MS) combined with molecular assays on matched pairs of non-invasive/invasive breast cancer models selected from established cell lines and from patients with progressive breast cancer disease, including DCIS. We identified biomarkers that either promote (e.g. focal adhesion kinase "FAK" and specific Rab-GTPases) or suppress (cytoskeleton proteins such as the scaffolding protein filamin A "FLNa"). The pro- and anti-invasive activity of these markers were confirmed by immunohistochemistry on tissues from patients; e.g. FLNa is downregulated in invasive cancers and metastatic nodules while FAK is upregulated. Molecular studies established the mechanisms of how these biomarkers promote or repress early breast cancer cell invasion and metastasis formation. Therapeutic implications were established in preclinical animal models for metastatic breast cancer using RNA interference and investigational small molecule drug candidates. Conclusions. These results provide a framework of knowledge on the intricate network of signaling molecules involved in the regulation of breast cancer invasion. They identify both prognostic and therapeutic biomarkers with the potential to be translated into clinical applications to manage/prevent the progression of breast cancer to metastases.

### **O-057 HEPATOCYTE GROWTH FACTOR IN EGYPTIAN FEMALES WITH BENIGN BREAST LUMPS AND FEMALES WITH BREAST CANCER**

H. Mohamed Ali El-Attar Aliel-Attar, M. Sheta, A. Saad

Alexandria University Medical Research Institute

The present study aims at estimation of the plasma level of Hepatocyte growth factor( HGF) in females with benign breast lumps and with breast carcinoma and correlating its levels with the prognostic parameters . Subjects : 68 adult premenopausal females were divided into: Group1 : 15 normal healthy volunteers and 53patients subdivided into : Group2A(15 with benign breast lumps ) and Group2B(38 with breast carcinoma) . Methods: Clinical examination ,pre- operative fine needle aspiration cytology for breast lumps .Estimation of fasting serum glucose, creatinine, ALT and HGF and histopathological examination of the mass . Results : Significant increase in HGF levels were found in patients with benign lumps, in whole breast cancer patients and those having breast cancer without and with LN metastasis groups when each was compared to control group. No significant differences in HGF level and age, tumor size, tumor grade , stage , with positivity or negativity of estrogen and progesterone receptors nor with angiogenesis were found in breast cancer patients. Conclusion : Significant increase in HGF level were found in patients benign breast lumps and in breast cancer patients . Serum level of HGF is a negative or an independent prognostic indicator of breast cancer. 3

### **O-058 SERUM FATTY ACIDS AND COLORECTAL ADENOMA RISK**

R. Ghadimi\*, K. Kuriki\*\*, S. Suzuki\*\*\*, I. Esfandiary\*\*\*\*, S. Tokudome\*\*\*\*\*

\*Dept of Social Medicine and Health, Babol University of Medical Sciences, Iran

\*\*Aichi Cancer Center, Japan

\*\*\*Nagoya City University, Japan

\*\*\*\*Iranian Pharmacy Association

\*\*\*\*\*National Institute of Health and Nutrition, Japan

**Introduction and Objectives:** Epidemiologic studies of n-3 fatty acids (FAs) and risk of colorectal cancer have been inconsistent, and their relation to risk of colorectal adenomas (CRA), as precursors of colorectal cancer, has not been evaluated in detail. We here focused on possible associations of serum FAs with CRA in the Japanese population. **Methods:** We conducted a case-control study of 203 asymptomatic CRA cases (148 men, 55 women) and 179 healthy controls (67 men, 112 women) during 1997-2003 in Nagoya, Japan. Baseline information was obtained using lifestyle questionnaire, and serum FA levels were measured by gas chromatography. **Results:** A non-significant inverse association with CRA was observed for eicosapentaenoic acid (EPA) among women. Moreover, the concentrations of docosahexaenoic acid (DHA), a major component of n-3 highly-unsaturated FAs (HUFAs), were significantly lower in cases in both sexes. In addition, serum concentrations of total FAs, saturated FAs (SFAs) and mono-unsaturated FAs (MUFAs) had strong positive links with CRA risk. In contrast, arachidonic acid (AA) and DHA were inversely related, with 66% and 59% risk reduction, respectively. Ratios of SFAs/n-3 PUFAs and SFAs/n-3 HUFAs exhibited significant positive relations with CRA risk but there was no clear link with n-6 PUFAs/n-3 PUFAs. **Conclusions:** Our findings suggest a promoting influence of SFAs and MUFAs along with a protective effect of DHA on CRA risk. However, further research is needed to investigate the discrepancy with the generally accepted roles of the AA cascade in carcinogenesis.

#### **O-059 THE EFFECT OF PREOPERATIVE D-DIMER, FIBRINOGEN AND CEA LEVELS ON TUMOR STAGE AND SURVIVAL IN PATIENTS WITH COLORECTAL CANCER**

M. Kara\*, V. Esatoglu\*, O. Gunes\*\*, O. Ozkan\*\*\*, M. Tilki\*\*\*\*, G. Tellioglu\*, I. Titiz\*

\*1st General Surgery, Haydarpasa Numune Training and Research Hospital, Istanbul, Turkey

\*\*4st General Surgery, Haydarpasa Numune Training and Research Hospital, Istanbul, Turkey

\*\*\*2st General Surgery, Haydarpasa Numune Training and Research Hospital, Istanbul, Turkey

\*\*\*\*3st General Surgery, Haydarpasa Numune Training and Research Hospital, Istanbul, Turkey

**Background:** Tumor angiogenesis is one of the most important level for tumor growth and metastatic spreading of colorectal cancer. Tumoral angiogenesis is a complex process including the activation of clotting, fibrinolysis and plasminogen system activation. Previous studies demonstrates that the extent of activation of hemostatis and angiogenesis related factors such as D-dimer, fibrinogen, vascular endothelial growth factor and platelets affects the survival in patients with colorectal cancer. **Methods:** Correlation of preoperative plasma D-dimer fibrinogen and CEA levels with histopathological findings, TNM, Dukes classification and survival were analyzed on 44 patients who underwent surgical resection of colorectal cancer between July 2007 – March 2009. **Results:** Higher preoperative plasma D-dimer and fibrinogen levels, were significantly associated with T4 tumor lymph node invasion and metastasis. On the other hand higher plasma CEA levels were only associated with metastasis. Plasma D-dimer and fibrinogen values were normal in patients with Dukes B, however these values significantly elevated in patients with Dukes C and D. D-dimer and fibrinogen levels were more correlated with tumoral deep wall penetration than tumor size. It was determined that high preoperative D-dimer fibrinogen and CEA levels have affected survival of the patients negatively. **Conclusions:** According to the results of the study, the levels of elevated plasma D-dimer and fibrinogen in patients with colorectal cancer correlates more with relatively advanced tumor stage that determines the tumor level better than CEA. It is revealed that the preoperative diagnosis of tumor stage and prediction of postoperative survival would become effective with measurement of preoperative D-dimer and fibrinogen levels.

#### **O-060 A NOVEL BRCA-1 MUTATION IN ARAB KINDRED FROM EAST JERUSALEM WITH BREAST AND OVARIAN CANCER**

L. Kadouri, D. Bercovich, A. Elimelech, I. Lerer, M. Sagi, G. Glusman, C. Shochat, S. Korem, T. Hamburger, A. Nissan, N. Abu-Halaf, M. Badryyah, D. Abeliovich, T. Peretz

National Cancer Control Project Officer in Palestine -Italian Cooperation Office-Jerusalem

**Background** The incidence of breast cancer (BC) in Arab women is lower compared to the incidence in the Jewish population in Israel; still, it is the most common malignancy among Arab women. There is a steep rise in breast cancer incidence in the Arab population in Israel over the last 10 years that can be attributed to life style changes. But, the younger age of BC onset in Arab women compared with that of the Jewish population is suggestive of a genetic component in BC occurrence in that population. **Methods** We studied the family history of 31 women of Palestinian Arab (PA) origin affected with breast (n=28) or ovarian (n=3) cancer. We used denaturing high performance liquid chromatography (DHPLC) to screen for mutations of BRCA1/2 in 4 women with a personal and family history highly suggestive of genetic predisposition. **Results** A novel BRCA1 mutation, E1373X in exon 12, was found in a patient affected with ovarian cancer. Four of her family members, 3 BC patients and a healthy individual were consequently also found to carry this mutation. Of the other 27 patients, which were screened for this specific mutation none was found to carry it. **Conclusion** We found a novel BRCA1 mutation in a family of PA origin with a history highly compatible with BRCA1 phenotype. This mutation was not found in additional 30 PA women affected with BC or OC. Therefore full BRCA1/2 screening should be offered to patients with characteristic family history. The significance of the novel BRCA1 mutation we identified should be studied in a larger population. However, it is likely that the E1373X mutation is not a founder frequent mutation in the PA population.

### **Registry and Epidemiology**

#### **O-061 HEAD AND NECK CANCER: IS IT A PROBLEM AMONG YEMENI PATIENTS ?**

H. Basaleem (Presenter), A. Bawazir, K. Al-Sakkaf

Department of Community Medicine and Aden Cancer Center, Faculty of Medicine and Health Sciences, Aden, Yemen

**Introduction and Objective:** Head and neck cancers have numerous repercussions for the medical system and individual patient. In Yemen, data on this cancer are scarce. This study aimed at describing the pattern of head and neck cancers registered in Aden Cancer Registry. **Methods:** The registered cancers (oral cavity, pharynx, nasal cavity, larynx, paranasal sinuses and salivary glands) during the period 1st January 2003–December 2007 were analyzed. Classification and coding of the neoplasm were carried out using the ICD–O and ICD–10. **Results:** Head and neck cancers were the forth cancers among registered cancers. Oral cancer was the



most frequent (36.3%), followed by nasopharyngeal cancer (31.6%) and laryngeal cancer (19.3%). Two-thirds were males (36.7%). The incidence increases with increasing age up to 40–60 years. Among males, the highest age-specific incidence rate was at the 55–64 years and it was for laryngeal cancer followed by oral cancer (9.3 and 7.1 per 100.000 inhabitants respectively). For females, the highest age-specific incidence rate was at later age; 65–74 years for oral and nasopharyngeal cancers and ≥75 years for nasal cavity cancer with the highest age-specific incidence rate of 13.2 per 100.000 inhabitants for oral cancer. Conclusion: These cancers are among the leading cancers in our community. Raising awareness about their early warning signs for early detection and management and the need for further larger studies to investigate the community-related risk factors and survival of patients are pointed.

#### **O-062 CANCER REGISTRY OF SETIF, (ALGERIA) INCIDENCE, TRENDS AND SURVIVAL 1986-2005.**

M. Hamdi Cherif, Z. Zaidi, D. Abdellouche, S. Hamdi, N. Lakhdari, A. Djema, S. Laouamri, A. Mahnane, H. Moussaoui, L. Kadri, D. Guerra

Cancer Registry Setif

It is a study relating cancer incidence and survival in Setif, Algeria during the period 1986-2005. Lung cancer is the first commonly site and is raising; the age-standardized rate (ASR) increases from 11.7 to 21.9 per 100.000 inhabitants for male. The cancer of the prostate is in second position, increasing from 2.0 in 1986 to 7.2 per 100.000 men in 2005. At the two sexes between 1986 and 2005, the number of new cases of colorectal cancer raises also. The incidence rate of the cancer of the bladder increases 2.2 to 8.7 per 100.000 people in man. The incidence rates of cancers of the nasopharynx, the stomach, the lymphomas and leukemia's remained stable during these two last decades. At the woman, the incidence rate of breast cancer is raising, the rates pass from 10.4 to 19.6 per 100.000 women. With regard to the incidence of the cancer of thyroid increases from 1,1 in 1986 to 4,3 Per 100.000 women in 2005. The rates are stable for the incidence of the cancer of the lymphoma gallbladder and, cervix. The data of survival relative to 5 years, not exceeding 40%, according to the last study CONCORD 1990-1994 for the common cancers of the cancer registry. Key words: Registry, cancer, Incidence, Site, Trend, survival.

#### **O-063 TRENDS IN LUNG CANCER HISTOPATHOLOGY IN IZMIR, TURKEY**

S. Eser, C. Yakut, R. Ozdemir

Izmir Cancer Registry

Purpose: Although there is a legislation for tobacco control in Turkey since 1991, smoking related cancers still have increasing trends except larynx cancer which has a steady trend. This pattern might be attributable to the changes in the consumption of cigarette types. We would like to present time trends for histopathologic types in lung cancer between 1993-2005 to support our findings. Methods: We calculated annual age adjusted incidence rates (ASR) according to World Standard Population for lung cancers totally and four main histological types, squamous-cell carcinoma (SCC-M8050-8076), adenocarcinoma (AC-M8140, 8211, 8230-8231, 8250-8260, 8323, 8480-8490, 8550-8560, 8570-8572), small-cell carcinoma (SmCC-M8040-8045) and large-cell carcinoma (LCC-M8012-8031, 8310) for each year of 1993-2005. Results: Among male ASRs were 64.9, 72.5 and 84.9 per 100 000 for 1993, 1999 and 2005 years respectively for lung cancer. ASRs were, for SCC 28.0, 19.0, 21.9, 17.7, 18.6 in males, 0.6, 0.2, 0.3, 0.2, 0.2 in females; for SmCC 12.7, 11.8, 11.1, 11.5, 11.4 in male, 0.6, 1.0, 1.1, 0.8, 1.8 in female; for AC 5.2, 6.5, 8.5, 12.0, 16.2 in males, 1.0, 1.2, 1.8, 1.9 and 3.1 in females; for LCC 3.5, 2.0, 2.1, 2.7, 2.5 in males, 0.6, 0.2, 0.3, 0.2, 0.2 in females per 100 000 for the same years respectively. Conclusion: The trends in the histological types of lung cancer support our previous findings for related with the changing pattern of consuming cigarette from non manufactured to more manufactured, from untipped to tipped and from black to blond tobacco.

#### **O-064 THE EPIDEMIOLOGY OF PANCREATIC CANCER IN SHANGHAI FROM 1973 TO 2006**

K. Gu\*, C. Wu\*, V. Gupta\*\*, F. Jin\*, Y. Zheng\*

\*Department of Cancer Prevention, Shanghai Municipal Center for Disease Control and Prevention, 1380 Zhongshan Road West, Shanghai 200336, China

\*\*Columbia University, College of Physicians and Surgeons, 630 West 168th Street, New York, NY 10032

The epidemiology of pancreatic cancer in Shanghai, China is poorly understood. Using data collected between 1973 and 2006, our study sought to characterize the epidemiology of pancreatic cancer across the 17 districts comprising Shanghai province. Incidence data was age standardized according to the world standard population, and annual percentage changes (APC) were calculated. During the 34-year time period, the average annual incidence of pancreatic cancer among men was 1.72% (95% confidence interval [CI] 1.34%-2.09%) and among women was 1.69% (CI 1.40%-1.99%). More detailed information was available for cases diagnosed between 2002 and 2006. During this 5-year period, pancreatic cancer was the eighth most common cancer diagnosed among males and the seventh most common among females, with a male/female incidence ratio of 1.18:1. 71.1% of all diagnosed cases occurred in individuals aged ≥65 years, with the highest incidence rates (88.7 cases/100,000 persons) occurring among individuals aged 80-84 years. Malignancy was most often confined to the head of the pancreas (75.5%), and 64.4% were diagnosed at with stage IV. The burden of disease in Shanghai province approaches the mean incidence rates worldwide (US rates: male:8.3 cases/100,000, female: 6.3 cases/100,000; worldwide: male:4.6 cases/100,000, female: 3.3 cases/100,000). However, among individuals aged ≥65 years, Shanghai demonstrates comparatively higher incidence and prevalence (urban Shanghai: male:65.8/100,000, female: 54.9/100,000; worldwide mean: male:35.3 cases/100,000, female: 28.8 cases/100,000). In summary, although the annual incidence of pancreatic cancer has remained consistent over the observed five period, the comparatively high prevalence rates among older adults in Shanghai is cause for concern.

#### **O-065 DEVELOPING A NOVEL SYSTEM TO SHARE EXPOSURE AND CANCER RELATED EPIDEMIOLOGY INDICATORS OF THE APOCP MEMBER STATES.**

H. Mousavi-Jarrahi\*, M. Golmahi\*\*, A. Mosavi-Jarrahi\*\*

\*Mashad University of Medical Science

\*\*The Cancer Institute Research Center (joint appointment)

Background: The advances in information technology throughout the member country of APOCP plus the diversity in terms of cancer rate as well as risk profile across the vast geographical regions of Asia Pacific bring the need to develop an online Country Specific Epidemiologic Indicator System to be available to cancer scientist for prevention and control measure. Methods and description: A basic online system was developed to address the regional cancer diversity rate and exposure. The system takes into consideration the three pillars of epidemiologic indicators (place, time, and human diversity) for cancer incidence and exposure prevalence. The system offers two ends (back and front end) available to scientist as well as public. The scientist can 1) share information through depositing indigenous developed indicators into system 2) compare the indicators into three different medium of mapping, charting and tabling, 3) leave indigenous indicator to be deposited into the system for future use of other scientist. The system, in part, utilizes the Geographic Information System technology for mapping of indicators. The system considers ethical aspect of sharing information by adhering to the copyright nature of the generated indicators in all aspect of sharing, referring as well as acknowledgments. The system is under test trial in the Health Metrics Research Core of the Dept. of Social Medicine, Medical school, Shaheed beheshti University of Medical Sciences. Conclusion: The system is a novel idea to utilize the potentials of the exploding electronic information cancer control.

## **O-066 DEATHS DUE TO LUNG CANCER IN SOUTH AFRICA: A MULTIPLE-CAUSE OF DEATH ANALYSIS**

M. Rahman

University of Swaziland

Introduction and objectives: To describe trends and patterns of lung cancer deaths in South Africa and to identify the diseases associated with lung cancer. Methods: Multiple cause death data compiled by Statistics South Africa from the death certificates from 1997 to 2005 were analysed using descriptive measures and measures of association. Lung cancer cases were separated from all records of deaths to create a data-file consisting of all deaths with any mention of lung cancer (ICD-10 code: C34). Results: The total number of deaths recorded during the study period was 4 257 415, of which 286 056 (6.72%) had a diagnosis of any form of cancers (C00-C97). Almost 14% of all decedents with cancer were diagnosed having lung cancer. The lung cancer was mentioned as underlying cause of death in 92.9% of all decedents with lung cancer. Out of total 39 205 lung cancer deaths, 50.8% had only one cause of death, 34.3% had two causes and the remaining had three or more causes. Conclusions: Lung cancer is the leading cause of death among all cancer deaths in South Africa, of which 70% were male. Almost 85% of these decedents had one or two causes of death, indicates that the lung cancer is a disease, not highly dependent on other co-morbid conditions to cause death. The measures of association provide among most significant associated diseases are cardiac arrest, heart failure, Pneumonia, respiratory failure and haemorrhage from respiratory passages.

## **O-067 CANCER MAGNITUDE IN SHAM COUNTRIES**

M. Tarawneh\*, S. Khatib\*\*

\*Ministry Of Health

\*\*KHIBC

Objective : This study was designed to present some epidemiological characteristics of cancer in Sham countries Methodology In this study we analyzed available data on some epidemiological characteristics of cancer in Sham countries . Results: It was found that cancer of all sites is more predominate in females . The median age at diagnosis of cancer in all Sham countries is within the range ( 52-56 ) years . The ASR for males in Sham countries is within the range 113- 179. The leading cancers among men in Sham are : Jordan ( Colo-rectal ( 11.4%) Leukemia (11.2%) Lung (10.7% ) . Lebanon : ( Prostate (16.5%) Urinary Bladder 16% Lung (15%) .Palestine: ( Lung 12.4%, Lymphoma (9.6%) Colorectal 9.2% . In Syria: (Lung 11.8% ,U. Bladder 9.8 % ,Colorectal 9.6% . Whereas among women the 1st rank cancer in all Sham countries is the breast with relative frequency as follow ( Jordan , Lebanon , Palestine , 34.8% , 40.2% , 27.2% respectively ) except Syria the uterus is the 1st (32.6 % ) . The 2nd is colorectal ( Jordan , Lebanon , Palestine , Syria , 9% ,7.6% , 27.6% 9.4% respectively. Conclusions and recommendations Cancer incidence is on the rise in all Sham countries as in other Arab countries where incidence rates for both men and women is increasing. Comprehensive cancer control programmes is highly needed.

## **O-068 SURVIVAL RATE OF GASTRIC CANCER IN IRAN**

M. Movahedi, A. Afsharfard, A. Akbari, A. Moradi, N. Moadeli, J. Khoshnevis, F. Fattahi, M. Akbari

Cancer Research Center, Shahid Beheshti University of Medical Sciences

Background: Cancer of the stomach is among the most common malignancies worldwide. In Iran, the mortality of stomach cancer is the first cause of death due to cancer in both sexes. The survival pattern of stomach cancer in different regions of Iran has already been investigated by a few numbers of studies. This study was designed to estimate survival rate of stomach cancer at national level. Methods: we called 3439 cases of stomach cancer from the national cancer registry file that had telephone number and were diagnosed between years 2001 and 2005 to obtain information about their life status. Survival estimates were calculated using the Kaplan-Meier method, and the survival probability was calculated for the overall cohorts and also for gender and anatomical sites of tumor. Relative risks according to demographic and risk variables were calculated by Cox's proportional hazard model. Results: The overall 5-year survival rate was 12.8 % .the likelihood of death was higher in men (RR=1.21; 95% CI: 1.11-1.33) and patients more than 70 years old had worse prognosis rather than those below fifty years old (RR= 1.67; 95% CI: 1.46-1.91).The 5-year survival rate for tumors located in antrum was significantly higher than corpus and cardia (15.3%, 13.2% and 7% respectively; p=0.009). Patients with lymphoma had a significantly higher 5-year survival rate compared to those with adenocarcinoma (RR= 0.46; 95% CI: 0.31-0.66). Conclusion: The status of stomach cancer, including relative low survival rate in Iran, indicates the extremely urgent needs for health authorities to adopt measures of cancer prevention that proved effective in other countries.

## **O-069 RELATION BETWEEN DEMOGRAPHIC FACTORS AND TYPE OF GASTROINTESTINAL CANCERS USING PROBIT AND LOGIT REGRESSION**

A. Pourhosiengholi, M. Pourhosiengholi, M. Vahedi, A. Safaee, B. Moghimi-Dehkordi, F. Ghafarnejad, M. Zali

Research Center of Gastroenterology and Liver diseases, Shahid Beheshti University, (M. C), Tehran, Iran  
 Background: Approximately 50,000 new cases of cancer occur each year in the Iranian population of 70.4 million. The most common organ system involved with more than 38% of all cancers is the gastrointestinal (GI). The objective of this study is to investigate the relation between demographic factors and type of gastrointestinal cancers using probit and logit models. Methods: This study was designed as a cross-sectional survey included all consecutive GI cancer patients admitted over one year period in a random selected hospital group located in Tehran in 2006. Results: The vast majority of cancer cases are colorectal cancer (40.0%), followed by gastric cancer (34.5%) and esophagus cancer (17.1%). There was a significant gender effect in the colorectal, gastric and esophagus cancer also there was a significant association between age and gastrointestinal cancers in both logit and probit regression. The factor of duration was not significant in gastric cancer. Conclusion: Men have colorectal cancer more likely than women. Older people have gastric cancer more likely than younger people. In esophagus cancer all factors were significance. Results from probit and logit models were similar to each others, indicated that probit analysis can be employed as a logit model to analyze the relationship between demographic factors and kind of cancers.

#### **O-070 TREND ANALYSIS OF GASTRIC CANCER AND COLORECTAL CANCER MORTALITY IN IRAN, 1995-2003**

M. Pourhoseingholi\*, S. Faghihzadeh\*\*, G. Gatta\*\*\*, E. Hajizadeh\*\*, A. Abadi\*\*\*\*, M. Zali\*

\*Research Center of Gastroenterology and Liver diseases, Shahid Beheshti University M. C, Tehran, Iran

\*\*Department of Biostatistics, Tarbiat Modares University, Tehran, Iran

\*\*\*Fondazione IRCCS, Istituto Nazionale Tumori, Via Venezian 1, Milan, Italy

\*\*\*\*Department of Biostatistics, Shahid Beheshti University M. C, Tehran, Iran

Background: Cancer is the third most common cause of death in Iran. Gastric cancer (GC) and colorectal cancer (CRC) are two important causes of mortality due to cancer. The aim of this study was to evaluate the mortality rates and trends from GC and CRC in Iranian population during a period of almost a decade, i.e. from 1995 to 2003. Methods: National death Statistic Reported by the Ministry of Health and Medical Education from 1995 to 2003, stratified by age group, sex, and cause of death are included in this analysis. CRC and GC were expressed as the annual mortality rates/100,000, general and/or per gender, and age group. Results: The general mortality rate of CRC slightly increased during the years under study from 0.44 to 2.54 and CRC mortality was higher for older age male. The general mortality rates of GC showed a sharp increasing from 1.68 to 9.67. Conclusion: Our study indicated remarkable increasing trends in GC and CRC mortality. So developing for a gastric cancer for both primary prevention and early detection programs and manage the delays of diagnosis is recommended to decrease the trend of GC mortality. For CRC, since the rate of CRC screening is very low in Iran, it is recommended that in Iran screening be started at least in family with the history of CRC in order to control the mortality and burden of CRC in the future.

#### **O-071 USES OF HOSPITAL BASED CANCER REGISTRIES DATA IN THE SETUP OF DEVELOPING COUNTRIES**

M. Dhar

JSS Medical College (Dept of Community Medicine), JSS University, Mysore, India

Uses of cancer registration are well established and documented. Population based cancer registries (PBCRs) in the developed world have been meeting the requirements of cancer control activities. In the developing countries however, PBCRs suffer from many difficulties and lacunae. Use of hospital based cancer registries (HBCRs) on the other hand has been limited to the study of magnitude and patient care. Barring few exceptions, there is no attempt to interpret HBCR data at the population level. In fact, there are additional potential uses of HBCRs, which are not tested in the setup of developing countries. Therefore the objective of present study was to explore all the potential uses of HBCR data and test their validity in India. Required data on number, proportion and rates of various forms of cancer were compiled for PBCRs and HBCRs in Mumbai, Bangalore and Chennai from the published reports of National Cancer Registry Programme. Patterns, incidence and trends in the leading sites of cancer were studied by comparing the same as derived from HBCRs with that obtained from PBCRs. Over-representation of easily accessible sites resulted in some variations in the top ten leading sites. However, in general, HBCRs did depict leading sites in the registry areas. HBCR data may also be utilized for studying the pattern, trend and down staging of cancer, of course, with additional precautions in interpretation. Findings of present study may encourage the expanded use of HBCR data thereby providing an economical alternative to the PBCRs viable for the developing countries.

#### **O-072 RISK OF DEVELOPING GASTRIC CANCER IN RELATIVES: A CASE-CONTROL STUDY**

B. Moghimi-Dehkordi, A. Safaee, S. Fatemi, E. Maserat, M. Pourhoseingholi, M. Zali

Research Center for Gastroenterology and Liver Disease, Shahid Beheshti University of Medical Science, Tehran, Iran

Introduction and Objective: Gastric cancer is one of the major causes of cancer related death in the world. A number of risk factors are now known to be related to the development of the disease. Previous reports indicated that family history is a serious risk for gastric cancer, but there is a little information about this, in Iran. The aim of this study was to explore the relation between family history of cancer in first and second degree relatives and the risk of GC in Iran. Methods: The present study was designed as unmatched case control study. Cases were 746 patients that histologically confirmed Gastric cancer and 746 controls were randomly selected among the healthy participants in a health survey. The family history was extracted from a standard history form completed by the patient or from the record created by a health care provider. Mantel-Heanszel Odds Ratio was computed for removing the confounding effect of age and sex. Results: Overall, 9.7% of cases versus 5.6% of controls reported a family history of gastric cancer. Gastric Cancer risk increased over twofold for subjects reporting a family with gastric cancer. There is no statistical association among family history of other cancers and gastric cancer ( $P>0.05$ ). Conclusion: In conclusion, this study showed that family history of gastric cancer, especially in first-degree relatives, increases the risk of gastric cancer. Further studies are needed to better understand the role of genetic factors and environmental factors and their interaction in gastric cancer development in Iranian community.

## **O-073 EXPERIENCE AND OUTCOME OF CANCER REGISTRATION IN BASRAH 2005-2008**

O. Habib

University of Basrah

Experience and outcome of population-based cancer registration in Basrah-Southern in four years (2005-2008) BY Basrah Cancer Research Group (BCRG) Participating Researchers: Omran S. Habib (Ph.D.) Professor of Epidemiology and Health Care, Department of Community Medicine, College of Medicine, University of Basrah. Member of Iraqi Cancer Council Jasim MA AL-Diab, (FIBMS Path.) Assistant Professor, Department of Pathology and Forensic Medicine, College of Medicine, University of Basrah Anmar A Mohsin (FACMS) Internist and Medical Oncologist, Al-Sadr Teaching Hospital, Basrah Wasan MJ Al-Elwe (FICMS) Pathologist. Al-Sadr Teaching Hospital, Basrah Janan G Hasan (ACPB) Assistant professor and Paediatrics Oncologist, College of Medicine, University of Basrah Susan S. Al-Haroon (FIBMS Path.) Assistant Professor, Department of Pathology and Forensic Medicine, College of Medicine, University of Basrah Kareem A Al-Emara (DCM) Community Physician, Director of Cancer Control Centre-Basrah Note: All correspondence are made to: Omran S. Habib (PhD) Professor of Epidemiology and Health Care, Department of Community Medicine, College of Medicine, University of Basrah. Member of Iraqi Cancer Council. Email: omran49\_basmed@yahoo.com Abstract Introduction: This paper describes the mechanism of a recent population-based cancer registration in Basrah-Southern Iraq and presents a profile on the outcome over a period of four years (2005-2008). Objectives: During these four years, extensive work was done to create culture of scientific approach to cancer, to enhance adequate cancer registration and subsequently to quantify the risk of cancer and enhance actions for its control within a national strategy. Methods :The mechanism of registration: Since 2005 cancer cases which are diagnosed and/ or treated at any of the major hospitals and governmental diagnostic facilities in Basrah are reported to the Cancer

## **O-075 CANCER IN KUWAIT: MAGNITUDE OF THE PROBLEM**

A. Elbasmi\*, A. Al-Asfour\*, Y. Al-Nesf\*\*, A. Al-Awadi\*

\*KCCC

\*\*MOH

The analysis used data of the Kuwait Cancer Registry (KCR) from year 1974 to 2007. Aim of this study: was to estimate the magnitude of the cancer problem in Kuwait over the last 33 years. Materials and methods: Age-adjusted incidence rates (ASR) with standard error (er) and 95% confidence intervals (95% CI) of age-standardized rates were estimated. Statistical significance was assessed by examining the standardized rate ratio (SRR). Results: by following the Cancer registry data there was a trend of increase in adjusted rates among both males and females. The ASR of colorectal cancer among Kuwaiti males increased by about 5 folds over the last 33 years and ranked the 1st most frequent site on the years 2003-2007. Prostate cancer incidence increased by 3 folds (14.5 cases /100,000 populations) and ranked the 4th most frequent site among Kuwaiti males. The incidence of Non Hodgkin's Lymphoma (NHL) and leukemia had increased by 1.5 to 2 folds over the same time period. The rise of lung cancer incidence declined to similar rates compared to that observed in the early 70s and 80s. For Kuwaiti females breast cancer had the highest incidence among Kuwaiti population (15 cases /100,000 populations), it increased by 3 folds (50 cases /100,000 populations) over the last 33 years. The incidence of colorectal cancer increased by about 4 folds; (13 cases /100,000 populations). NHL and leukemia increased by 2-2.5 folds over the same studied duration. Meanwhile Thyroid cancer increased by one fold.

## **O-076 HRQOL AND FUNCTIONAL LIMITATIONS OF ORAL CANCER PATIENTS BEFORE TREATMENT**

R. Raja Jallaludin, M. Jamaludin, A. Ab Sallam, J. Geraldine Doss, I. Abdul Razak, A. Bustam, N. Abdullah, H. Lai, W. Ghani, M. Survashe, R. Mohd Zain

Oral Cancer Research and Coordinating Centre, Faculty of Dentistry, University of Malaya, 50603 Kuala Lumpur, Malaysia. The aim of the study was to investigate factors associated with HRQoL status of oral cancer patients before treatment. The Oral Cancer Research and Coordinating Centre collects data prospectively from patients. Patients were interviewed within 2 weeks after they were informed of their diagnosis. HRQoL information was captured using a modified UW-QOL Version 4 instrument. Most (144/166, 87%) patients had at least one functional limitation. About 58% were female, 50% elderly, 42% Indian, 32% financially independent and 34% currently have no spouse. In terms of high risk habits practiced, 65% have never smoked, 69% have never drank alcohol, 49% have never chewed quid. Almost a quarter (23%) were seeking alternative treatment. Many (44%) had lesion size of more than 4cm; 42% had tongue lesions and for 24% their lesions were on the gum or retromolar area. One fifth (19%) were staged 3 and 47% staged 4. About 19% had family history of cancer. Common symptoms experienced included oral pain (73%), depression (62%), chewing difficulties (48%) and swallowing difficulties (42%). Problems with recreation, physical activities, speech, appearance, opening the mouth, shoulder movement and taste were reported among 15-33%. Three or more functional limitations were present among 54%. Disruption of daily activities due to functional limitations was reported among 34%. At the point of diagnosis prior to treatment, oral cancer patients face many functional limitations that compromise their HRQoL. The need for patient support should be emphasized early before clinical intervention.

## **O-077 10 YEARS EPIDEMIOLOGIC STUDY OF HEAD& NECK CANCERS IN GUILAN PROVINCE, IRAN.**

F. Shahsavari\*, M. Nikpasand\*\*, S. Karimi\*\*\*, M. Ghanbariha\*\*

\*Guilan University of Medical Sciences, Islamic Azad University of Tehran

\*\*Private Office

\*\*\*Guilan University of Medical Sciences

Introduction: Head & neck cancers have been known as the 10th common cancer in the world. Since they can cause morbidity& mortality, their early diagnosis is worth everywhere. So it is important to know the prevalence of them in different places. Aim: The aim of this study was to evaluate the frequency of head & neck cancers in Guilan Province since 1999 to 2008. Materials & Methods: This is a retrospective-descriptive study based on existing data in Guilan Cancer Registry Center. The information about age, sex, location and type of the cancer was recorded. All data were analyzed using SPSS 13. Results: Out of 2335 cases, 1372(59%) & 936(41%) were male and female respectively. SCC (997 cases, 43%) was the most common cancers and then after BCC (538 cases, 23%). The cancers were more commonly found in 10th decade and then 7th decade of life. Common site of involvement were esophagus, face skin and thyroid gland. Conclusion: Out of 12830 cancers in this period (10 years), 2335 cases were Head& neck cancers. In the other hand, H&N cancers compromised 18% of all cancers.

## **O-078 SOCIO-ECONOMIC INEQUALITIES IN TESTICULAR CANCER SURVIVAL WITHIN TWO RANDOMISED CLINICAL TRIALS**

U. Nur

London School of Hygiene and Tropical Medicine

Testicular cancer is the most common cancer in men under 35 years of age, and has the highest survival for all adult male malignancies. Despite the fact that survival is very high, there is strong evidence that survival differs by socio-economic groups. We analyzed survival patterns for 1,611 testicular cancer patients; diagnosed during 1984-2001 and recruited to one of two clinical trials studies. TE04 a surveillance study to determine the relapse-free rate after orchidectomy, of stage I nonseminomatous germ-cell testicular cancer patients, diagnosed during 1984-1994. In the second trial TE19, patients with stage I seminomatous germ-cell tumours were assigned to receive radiotherapy or one injection of carboplatin. Crude and relative survival was estimated at 5 and 10 years for the five categories of socio-economic deprivation. No significant socio-economic gradient was seen in the study population 1.42% (95% CI -0.25% to 3.09%) at 5 years and 2.12% (95% CI -0.48% to 4.71%) at 10 years. We conclude that given equal treatment at a given stage of disease, survival from testicular cancer does not depend on the socio-economic status, suggesting that the socio-economic gradient seen in the general population for patients diagnoses during a comparable, might be due to health care system factors

## **O-079 A STUDY OF THE FAMILIAL AGGREGATION OF ESOPHAGEAL CANCER IN BABOL, NORTHERN IRAN**

K. Holakouie Naieni, T. Shafieezadeh, A. Fotouhi, M. Mahmoodi

School of Public Health, Tehran University of Medical Sciences

This study was done to look at the familial aggregation of esophageal cancer in the population covered by Babol Research Station (affiliated to Tehran University of Medical Sciences). The purpose was to assess the risk of disease in first-degree relatives of cases found in a population known to have a high incidence rate of this malignancy. This research used data from three to four consecutive generations in the relatives of patients affected with esophageal and other cancers registered in Babol between 2001 and 2003. We used logistic regression (within a Generalized Estimating Equations model) to estimate cancer odds ratios in the first-degree relatives of esophageal cancer patients. Confounding variables controlled for in this study include proband and relative's age and sex. The overall proportion of cancer patients in first-degree relatives was 3.09% (3.8% for men and 2.3% for women). The pairwise odds ratio for first-degree relatives was estimated at 1.79 (CI 0.95 = 1.1-2.93); the same index was 2.21 (CI 0.95 = 1.1 - 4.44) for parent-offspring pairs and 1.92 (CI 0.95 = 0.87 - 4.24) for sibling pairs. No relationship was detected in the case of spouse pairs (between parents). Therefore, familial aggregation was detected in first-degree relatives of esophageal cancer patients in this area. The parent-offspring relationship suggests the presence of a genetic component.

## **O-080 BURDEN OF THE GASTRIC CANCER IN IRAN**

M. Khayamzadeh\*, R. Salmanian\*\*, F. Abou Alhasani\*\*\*, M. Moradi Lakeh\*\*, M. Naghavi\*\*\*\*, M. Akbari\*

\*Cancer Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

\*\*Iran University of Medical Sciences, Tehran, Iran

\*\*\*Tehran University of Medical Sciences, Tehran, Iran

\*\*\*\*Ministry of Health and Medical Education, Tehran, Iran

Introduction: The policy makers and social managers need some criteria for building up the appropriate health status of the community and observe the equity and equality on it. They have to know the burden of diseases as a main determining factor for decision making, planning and programming. Disability adjusted life years (DALYs) is a criteria which shows the wasted life time due to early death and also wasted time due to disease morbidity and disability. Gastric malignancies as commonest cancers in Iran are important and estimating the burden of these malignancies will enable the health policy makers to share the community sources, as appropriate. Material and Methods: The estimation of burden of disease and risk factors was a national study that began on 2003 by the ministry of Health and Medical education (MOH&ME) after establishing cancer registry in the country. This study was the first and only national study for burden of cancers. Here by we discussed about the burden of gastric malignancies as a part of this study. This study was performed by a special modeling and new software. Results: Due to wasted life time of early death and morbidity, gastric malignancies are the first malignancy in Iran. Year waste in Iranian population is 1.05 DALYs in each 1000 person. The burden of the cancer in Iranian women was less than male population. Conclusion: In Iran the burden of gastric cancer was more than Eastern Mediterranean region (0.83 DALYs/1000) and the whole World (1.30 DALYs/1000).

## **O-081 EPIDEMIOLOGICAL AND MINERALOGICAL INVESTIGATIONS ABOUT ENVIRONMENTAL RISK FOR MALIGNANT MESOTHELIOMA IN NEW CALEDONIA**

F. Baumann\*, P. Maurizot\*\*, B. Robineau\*\*\*, J. Ambrosi\*\*\*\*

\*Institut Pasteur de Nouvelle-Calédonie

\*\*Bureau de la Recherche Géologique et Minière

\*\*\*CNRT Nickel et son Environnement

\*\*\*\*CEREGE

Malignant mesothelioma (MM) is a rare tumor of the pleura due to inhalation of asbestos, or occasionally erionite fibres. Incidence rates are usually five times more elevated in men than in women, because of occupational exposure. New Caledonia (NC) is located in the South Pacific, where the majority of the Melanesian population has kept a tribal way of life. Very high incidences of MM and lung cancer are observed. A relationship was established between MM and the use of a whitewash with local outcroppings (called "po"). A second study showed that the SIR of MM was 7.52 per 100,000 inhabitants per year in Melanesians, against 0.57 in Caucasians. The early onset of disease, and the sex ratio equal to 1.03, suggested a non occupational exposure for Melanesians. All Caucasian cases were men over the age of 60 years, implying an occupational exposure. Statistical analysis demonstrated a significant association between soil containing serpentinite and MM. Epidemiological and geological investigations were conducted in

the tribes of the two highest incidence areas. The main objectives were to study the clusters of MM, and the links between MM and the possible environmental sources of asbestos exposure. Cases were identified from the Cancer Registry of New Caledonia. We collected demographic characteristics, residential history, school and occupational history. Mineralogical analysis were realized on samples of po, outcrops, embankments of roads, quarries, ... We will present the results of cluster analysis, univariate and multivariate analysis of risk factors using ecological regression.

### **O-082 THREE AND FIVE YEAR SURVIVAL RATE OF BREAST AND OVARIAN CANCER: CORRELATION TO BODY MASS INDEX (BMI) IN "DHARMAIS" NATIONAL CANCER HOSPITAL, INDONESIA DURING THE PERIOD 1997-1999**

E. Suzanna, S. None

Dharmais National Cancer Hospital

According to hospital based cancer registry in "Dharmais" National Cancer Hospital, breast and ovarian cancer are among the ten most common cancer in women, i.e. 27.5% and 7.25% respectively. Currently, body mass index (BMI) has an important role for a breast cancer patient especially in early stage. But the results of studies still have inconsistencies which are normal BMI has a good prognosis and other study said the opposite. Thus, we want to know the survival rate of breast and ovarian cancer and the correlation with BMI in Indonesia. We used retrospective study by reviewing breast and ovarian cancer medical records during the period 1997 until 1999. We got 268 cases of breast cancer and 82 cases of ovarian cancer whose BMI were underweight (18 cases /6.72% and 19 cases/23.17%), normal (148 cases/55.22% and 48 cases/58.54%), and overweight (102 cases/38.06% and 15 cases/18.29%). Among breast cancer cases, we found that three year survival rate according to normal and overweight BMI was 39.66% vs 58.32%, while five year survival was 22.73% vs 38.39% respectively. Meanwhile for patients with underweight BMI, three year survival was 0%. For ovarian cancer, three year survival rate according to normal and overweight BMI was 22.2% vs 66.67% and five year survival rate was 22.5% vs 25% respectively. While underweight BMI has the same three and five year survival namely 12.5%. In this study we revealed that both of breast and ovarian cancer with overweight BMI have longer three and five year survival than normal BMI.

### **O-083 INCIDENCE RATES OF RECTUM CANCER IN ALMATY AND ASTANA CITIES**

N. Igininov\*, A. Narbaev\*, S. Igininov\*\*

\*Astana Medical University

\*\*Kazakh Research Institute of Oncology and Radiology

Peculiarities of prevalence of a rectum cancer among big cities of Kazakhstan as Almaty and Astana have its meaning that organization questions of proctologic services are put much better, than in other regions of Kazakhstan. Therefore questions of diagnostics and the account of oncological patients with RC in these cities are carried out rather well. From the period 1997 till 2005 in Almaty 1,292 patients had been registered that has made 13.5%, and in Astana for this period 292 patients were revealed that has made 3.1%, from all patients of Kazakhstan. Thus the number of patients of RC among women in the specified cities was above (53.6 and 51.7%, accordingly) than among men (46.4 and 48.3%, accordingly). Middle age of patients of all population in both cities had appeared identical ( $68.0 \pm 0.8$  and  $66.9 \pm 3.1$  years, accordingly). Middle age of patients with such disease among the man's population of Almaty ( $68.4 \pm 1.2$  years) was higher than in Astana ( $67.6 \pm 4.8$  years), however 95% their confidential intervals were imposed, consequently these distinctions statistically were not essential ( $p > 0.05$ ). The similar data is received among the female population ( $67.6 \pm 1.7$  and  $66.0 \pm 3.0$  years, accordingly). The general incidence of all population of Almaty ( $12.5 \pm 1.30/0000$ ) in 1.4 times higher, than similar incidence in Astana ( $8.8 \pm 1.20/0000$ ). Probably, they depend on a demographic factor, in particular from relative density of people over 60 years, and also from ethnic structure of the population, etc. As standardized (world standard) incidence rates of disease of RC were almost identical ( $10.7 \pm 0.5$  and  $9.8 \pm 0.30/0000$ , accordingly)

### **O-084 BREAST CANCER HISTORY AND PREVALENCE**

M. Shahnazari Aval, S. Taavoni

, Iran University of Medical Sciences

INTRODUCTION: Breast cancer was recognized by the Ancient Egyptians as long ago as 1600 BC. However, over the past 50 years it has become a major health problem affecting as many as one in eight women during their lifetime and leading cause of cancer death and morbidity among women worldwide. Among women living in developing countries the risk is lower but appears to be increasing. OBJECTIVE: To search history and prevalence of Breast Cancer. METHODS: In this study by using the key words of Breast Cancer, History, Prevalence, USA, Europe, Australia, and Middle East in Pub med, Science Direct, Google search engines and WHO Website on December 2007, also related books we found more than 50 articles, in the mentioned field. RESULTS: Due to the report of WHO, Global Prevalence of Breast cancer is 46%. in Cairo indicates a rate of 8 per 1000 breast cancer. In Jordan, breast cancer constituted 14.2% of all cancer cases in women. Lebanon ;There is 49% of cases being below 50 and a median age of 49.8 years. In Morocco breast cancer was the second most common, in 22.3% of cases. In Oman breast cancer constituted 13.7% of all female cases. Palestinians: breast cancer in 26% of the Ashkenazi group, 13% in the Sephardic group, and only 9% in the Palestinian group .In Saudi Arabia A National Registry was reported of 19.1% of breast cancer. All breast cancers in Tunisia ASR was calculated at 16.7/100,000. CONCLUSION Regarding to all mentioned studies, which may be useful to medical group, who care for female clients when undertaking any cancer control program, understanding these statistics, their source, and their quality is important for assessing the current situation, allocating resources to different control strategies, and evaluating progress.

## **Treatment**

### **O-085 EFFICACY OF SCALP COOLING ON THE PREVENTION OF CHEMOTHERAPY-INDUCED ALOPECIA IN BREAST CANCER PATIENTS UNDERGOING ADJUVANT CHEMOTHERAPY**

M. Mohsen\*, A. El-Badawy\*\*, N. Abd-El-Bary\*\*\*, G. Shehata\*\*\*\*, -. ----\*\*\*\*\*

\*faculty of Nursing

\*\*Faculty of Nursing-Menofia University

\*\*\*faculty of Medicine-Menofia University

\*\*\*\*FACULTY OF NURSING

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**Abstract Introduction:** Chemotherapy-Induced alopecia has become a significant health problem for cancer patients. Aim of this study was to investigate the effect of scalp cooling on the prevention of Chemotherapy-Induced alopecia in post-mastectomy women Undergoing Adjuvant Chemotherapy. **Methods;** The study was conducted at the chemotherapy unit in the Oncology Institute, Menofia University-Egypt. Sixty patients with mastectomy Undergoing Adjuvant Chemotherapy who met the study criteria were selected. Patients were randomly assigned into two equal groups, a study group and control group of 30 patients each. The study group was received scalp cooling while receiving their chemotherapy cycle, while the control group received the hospital routine. Tools of the study includes; 1) Structure interview questionnaire, 2) Physiologic measurement of hair loss, 3) Photo documentation before and after chemotherapy and 4) State-Trait Anxiety Inventory (STAI). Both study and control group were interviewed and their hair were assessed 6 times throughout the study. **Results:-** \*. The scalp cooling group had delay total alopecia rate by 80 % at sixth chemotherapy cycle when compared with those who did not use scalp cooling. As all of control group (who did not use scalp cooling)

### **O-086 EFFECT OF STRESS ON IMMUNE RESPONSE AFTER SURGICAL TREATMENT OF BREAST CANCER**

S. Weheida\*, M. El-Bassuoni\*\*, S. El-Ghafar\*\*\*, S. Elalem\*\*\*

\*Department of Medical Surgical Nursing, Faculty of Nursing, University of Alexandria

\*\*Department of Clinical Pathology, Faculty of Medicine, Menoufyia University

\*\*\*Department of Adult Health Nursing, Faculty of Nursing, Menoufyia University

**Abstract** Breast cancer has become a significant health problem. Cancer women need for reducing emotional stress; fear and anxiety which effect on immune response. Aim: was to determine the effect of stress on immune responses after surgical treatment of breast cancer. **Method;** study was carried out on a convenient sample of 30 adult patient diagnoses as breast cancer for stage II or III and scheduled for mastectomy at oncology hospital and surgical department of Menofia University Hospitals. A descriptive design was used. **Tools:** 1) stress assessment scale, 2) Immune response assessment questionnaire, and 3) Nutritional Assessment questionnaire. **Result:** • 46.7% of breast cancer patient aged between (45-to less than 55)years, 80.0% were married, 63.3% lived in rural areas, 50.0% a monthly income between (150-less than 300) Egyptian pound, 40.0% were illiterate, • 36.7% of the sample had sever level of stress at preoperative assessment while 56.7% had sever level of stress at post operative assessment, • There was negative statistically signification correlation between total stress and immune response were T lymphocytes, CD4 helper, CD56 NK cell, and CD14 monocytes is pre operative assessment. And T lymphocytes, CD4 helper CD8 Cytotoxic, CD56 NK cell, CD14 monocytes in post operative assessment. **Conclusions:** the higher degree of stress, the lower the value of T Lymphocytes, CD4 helper, CD8 cytotoxic CD 56 NK cell, and CD14 Monocytes. Supporting cancer patient during treatment was recommended to improve psychological and physical well-being.

### **O-087 PTEN GENE MUTATION AND PRIMARY PROSTATE CANCER PROGRESSION**

S. Salem, A. Mehraei, A. Abedi, G. Pourmand

Urology Research Center, Tehran University of Medical Sciences

**Introduction:** PTEN is a putative tumor suppressor gene located on 10q23 in prostate cancers, the second most common cause of cancer-related death in men. The PTEN mutation rate is not exactly determined, especially in Asian people. This study sought to further clarify the role of PTEN gene in combination with Gleason scoring for better prediction of progression and survival of cancer, also to identify PTEN mutation frequency among Iranian patients. **Methods:** Fifty-one cases of primary prostate cancer were studied and followed for at least 5 years. The methods of tissue microdissection and single-strand conformational polymorphism were used. The clinicopathological data were collected. **Results:** Fifty-seven, twenty-one and twenty-two percents of the tumors were Gleason score (GS)<7, 7 and >7 respectively. In addition, the stages of the tumors in 51 primary prostate cancers were IIa(27.5%), IIb(7.8%), IIc(43.1%) and IV(21.6%). Six of fifty-one (11.6%) primary prostate cancers showed mutations in PTEN, which involved exons 1, 2 and 5. The stages of the tumors with positive mutations were 16.7%(IIa), 33.3%(IIb) and 50%(IV). Of them 16.7% and 83.3% were GS=7 and >7 respectively. Five of six patients died as a result of metastases. Patients with a positive mutation of PTEN had a significantly greater GS ( $P<.001$ ), lower survival rate ( $P=.001$ ), higher tendency to metastasis ( $P=.002$ ), and higher prostate-specific antigen ( $P=.03$ ). Cox proportional hazard model showed that only GS was significantly correlated with mortality ( $P=.03$ ). **Conclusion:** The PTEN mutation frequency in Iranian patients was 11.6%. Prostate cancer with positive PTEN mutation has a worse prognosis, greater proclivity to metastase, with higher stage and grade.

### **O-088 EFFECT OF ORAL CARE PROTOCOL ON ORAL CLINICAL OUTCOME AMONG PATIENTS RECEIVING HEAD AND NECK RADIOTHERAPY**

S. Weheida\*, A. Shehata\*\*, Z. Hessian\*\*\*

\*, Medical Surgical Nursing, Faculty of Nursing, University of Alexandria- egypt

\*\*Adult Health Nursing, Faculty of Nursing, University of Menoufyia- egypt

\*\*\*Adult Health Nursing, Faculty of Nursing, University of Helwan- egypt

Radiotherapy in the head and neck region constitutes a major therapeutic challenge. Oral side effects occur in virtually all patients receiving radiation for head and neck malignancies. Aim: This study was carried out to determine the effect of oral care protocol on oral clinical outcome among patients receiving head and neck radiotherapy. **Methods:** A convenience sample of 60 patients with head

and neck cancer were randomly and alternatively divided into two equal groups: 30 for each group: Study group (I) received protocol of oral care. Control group (II) exposed to routine hospital care. The study was conducted at the cancer Institute of Shebin El-Khom Menofia University Hospital. Tools: Tool 1) Oral care structured interview questionnaire, Tool 2) Oral cavity Observational check list and Tool 3) Oral Mucositis Scale. Results: • Highly significant differences between patient in study and control group in the third assessment in relation to lips condition and gingival status. • Concerning sense of taste and swallowing ability a significant progress in sense of taste and swallowing ability among patients in the study group for the third assessment compared to baseline assessment. Conclusion: a proposed program of oral care when implementing showed a reduction in the oral cavity problems among patients who received radiotherapy to head and neck region. Enrichment of patients with knowledge and skills about oral care and its management encourage patients to continue course of treatment and can lead to improvement of clinical outcomes.

#### **O-089 STUDY ON TOBACCO AWARENESS, USAGE & HABITS AMONGST MARGINALISED CHILDREN IN INDIA.**

S. Maudgal, S. Raval, S. Mitra, N. More, M. Parab

Cancer Patients Aid Association

Tobacco related Head and Neck cancers are the most common cancers in India. CPAA has put a great deal of effort into raising awareness and early detection of this cancer in adults. The present study relates to our efforts for children, especially street children and juvenile delinquents in remand homes in Mumbai and Kasara, Maharashtra; and Guwahati and Amsong, Assam who were interviewed and provided ENT screening. Children start using tobacco in the company of friends and classmates. The earliest was 3 and average was 11 years. Tobacco was obtained with money given by parents for treats or begged or stolen from temples. Amount spent was between 1 and 200 rupees. Masheri or roasted tobacco was used in Kasara, gutkha and raw areca nut in Assam and raw tobacco, pan masala, areca nut and cigarettes in Mumbai. 75% of the children were aware of the dangers of tobacco use. Children who attended even a rudimentary school had higher awareness about hazards and the addictive ingredient, Nicotine and its effects. Areca Nut or supari was not considered dangerous. In Assam most children had access through trees grown in their backyards. No connection was found between parents and children's tobacco usage. Young adults are influenced by tobacco advertisements and promotions, but not younger children. The personality that came to mind was actor Shahrukh Khan. When 253 users were asked if they wanted to quit, 215 said yes. When further asked if they had ever tried to quit, 135 said yes.

#### **O-090 THE FRAMEWORK CONVENTION ON TOBACCO CONTROL (FCTC) 7 YEARS AFTER: WHERE DO WE STAND**

N. Ferraud-Ciandet

Grenoble Ecole de Management

Keywords: law, treaty, WHO Introduction and objectives Legislation plays a major role in the fight against tobacco related diseases. The World Health organization (WHO) adopted a treaty in order to lower tobacco consumption (2003). This presentation analyses its implementation at a country level. Method The method is a comparative country survey including: USA, France, Germany and Turkey. Turkey has shown a commitment to surveillance, beginning with its first implementation in 2003 and 2009. It's the 1st country to complete data collection for the Global Adult Tobacco Survey. The analysis is based on: prevention policies, smoke-free places, taxes rising on tobacco. Results Although 168 States have signed the treaty, the Report on the global tobacco epidemic (WHO, 2009), finds that, even as the global toll of tobacco grows, most governments are falling short in implementing the policies required by the international tobacco control treaty. They are not moving quickly enough to enact comprehensive smoke-free laws that provide protection from deadly second-hand smoke (only 17 countries currently have smoke-free policies that provide universal and effective protection from second-hand smoke), with more than 94% of the world's population still unprotected. Conclusion Compliance with smoke-free laws is low: 2% of the world's population lives in countries with high levels of compliance.

#### **O-091 LIVER TISSUE MICROREGION CHANGES IN WALKER-256 CARCINOSARCOMA-BEARING RATS**

T. Kunts, S. Michurina, G. Vakulin, A. Belkin

Central Research Laboratory, State Medical University, Novosibirsk, Russia

Background and aim: homeostatic function of the liver is provided owing to close interaction between liver cells and structural components of microcirculatory bed. Different pathologic conditions upset the cooperative relations among hepatocytes and sinusoidal cells. Our objective in current study was to investigate changes in liver tissue microregion in rats on tumor growth conditions. Methods: male Wistar rats were divided into two groups: normal and Walker-256 carcinosarcoma transplanted (on day 7 after subcutaneous injection of 10<sup>6</sup>[SUP6] cells). Liver samples were obtained and investigated by light and electron microscopy. Results: Light microscopy and morphometric analysis of rat liver revealed increasing of stereological parameters, such as surface density sinusoidal bed and sinusoidal cells. Ratio sinusoidal/hepatic cells was significantly higher in tumor-bearing group than in a control group. Electron microscopy results demonstrated sinusoid dilation, occlusion and sludged erythrocytes in the tumor-bearing rat liver. It was revealed ultrastructural changes in hepatocytes: mitochondrial swelling and matrix fading, fat drops increasing, smooth endoplasmatic reticulum dilation, rising of hepatocyte nucleus surface and activation hepatocyte poles. The number of Ito cells was greater then compared with the control group, a lot of collagen fibers were found in the space of Disse. Conclusion: The study revealed deregulation microcirculatory hemodynamic leading to tissue hypoxia and liver cells alterations. We suppose the cross-talk coupling between hypoxic hepatocytes and sinusoidal cells possibly plays an important role in the progression of liver diseases, in particular fibrosis.

#### **O-092 LONG-TERM SURVIVAL AFTER ESOPHAGECTOMY FOR EARLY SQUAMOUS CELL ESOPHAGEAL CARCINOMA IN LINXIAN, CHINA**

P. Song\*, H. Liang\*\*, W. Wei\*\*, Y. Qiao\*\*

\*Johns Hopkins School of Medicine; Cancer Institute, Chinese Academy of Medical Sciences

\*\*Cancer Institute, Chinese Academy of Medical Sciences



Linxian in Henan Province, China, has among the highest rates of esophageal cancer in the world. Little is known about long-term survival after esophagectomy performed on early precursor lesions found in early detection screening programs. We present a survival analysis of 315 esophagectomy patients from Linxian. Cases were patients who underwent esophagectomy for early squamous cell esophageal carcinoma found in screening programs in Linxian, China. A 1:2 match of healthy age- and gender-matched controls from Linxian found 630 controls for 315 cases. Survival analyses were performed with SPSS-15. Kaplan-Meier survival analysis revealed that cases had a 5-year survival of 87% and a 10-year survival of 77%. Controls had a 5-year survival of 83% and a 10-year survival of 64%. The difference between cases and controls was not statistically significant by the Log-Rank test ( $p = 0.332$ ). One unresolved issue in esophageal cancer is the efficacy of early screening and intervention programs. In this study, survival rates of cases were not significantly different from those of healthy age- and gender-matched controls. Thus, early intervention for patients who would otherwise have developed advanced esophageal carcinoma may have improved their survival rates. Also, cases were younger than typical esophagectomy patients since cases were found by screening before presentation of symptoms. Furthermore, the esophageal cancer hospital in Linxian has extensive experience in performing esophagectomies, which has been associated with improved results. Early screening and intervention may thus be relevant for areas with high risk for esophageal cancer such as Linxian.

### **O-093 EMOTIONAL DIFFICULTIES EXPERIENCED BY CHILDHOOD CANCER PATIENTS' SIBLINGS**

V. Shukla, M. Nigwekar, S. Maudgal

Cancer Patients Aid Association

Childhood cancer has substantial emotional impact on siblings of sick children as they undergo tremendous changes in their lives. CPAA interacts with families of patients at wards, in municipal and private hospital OPDs and at our centre. The current paper is part of a larger study aimed at achieving a deeper understanding of the cancer experience and its effects on the entire family to enable healthy coping. This initial study was carried out as a pilot to explore alexithymia or the inability to describe emotions in a verbal manner in cancer patient's siblings. 45 children (15 each patients, siblings and control healthy children matched for age and sex) were administered a validated scale for alexithymia and empathy. Some of the components studied were ability to identify feelings, describe feelings and externally oriented thinking. The subjects were chosen from among families undergoing therapy at various hospitals in Mumbai. The study showed a significant difference between the component of difficulty in feeling between siblings and patients. Compared to the control group, patients showed significant levels of alexithymia, but significantly siblings showed even higher levels. The consequences of alexithymia are seen in poor adjustment and lack of empathy. It was observed that siblings of children with cancer have lower levels of empathy compared with healthy brothers and sisters. Empathy was a significant predictor of ability to externalize and deal with the problem. The findings reinforce our observation that more needs to be done in helping healthy siblings through the childhood cancer experience.

### **O-094 A COMPARISON OF SERUM SURVIVIN AND ALPHA FETOPROTEIN IN EGYPTIAN PATIENTS WITH HEPATOCELLULAR CARCINOMA ASSOCIATED WITH HEPATITIS C VIRAL INFECTION**

H. Mohamed Ali EL-Attar, Y. El-Kerm, M. Kandil, M. El-Ghandour

Medical Research Institute

The aim was evaluating the plasma level of Survivin and Alpha fetoprotein in patients with chronic hepatitis C viral infection (HCV) without and with hepatocellular carcinoma (HCC). **SUBJECTS:** Control group (Group I) ( 20 healthy volunteers ) and Patients groups: Group II : HCV group( 20 patients) and Group III: HCC with HCV(30 patients ) . **METHODS :** Physical examination , ultrasonography of the abdomen ,laboratory investigations {liver profile, anti-HCV antibodies, hepatitis B surface antigen, ,Alpha fetoprotein ( and Survivin } were performed . **RESULTS:** There was a significant increase in Survivin level in HCV patients (Group II) when compared to the control group ( $p = 0.039$ ) .There was a significant increase in alpha fetoprotein in(Group II) and (Group III) when compared to (Group I )(P = 0.000 for both). Also a significant increase when (Group III ) was compared to (Group II) (P=0.000). The best generated cut off value for AFP was 10.85ng/ml and for Survivin 13.7pg/ml . Serum Survivin diagnostic sensitivity was 53.3 % diagnostic specificity 62.5 % and efficiency 58.57 % . While, Serum Alpha fetoprotein sensitivity was 100 % , specificity 92.5 % and efficiency 95.7 % . **CONCLUSION :** Survivin showed a lower diagnostic performance and proved to be less reliable as a tumor marker for HCC than did Alpha fetoprotein.  $\lambda$

### **O-095 SERUM EPIDERMAL GROWTH FACTOR IN CANCER BREAST**

H. Mohamed Ali EL-Attar, S. Moghazi, G. Fadaly, M. Abu Diba

Medical Research Institute

<sup>3</sup>The aim was to evaluate the serum level of Epidermal growth factor (EGF) in breast cancer female patients in comparison with other prognostic parameters. **Subjects:** 57 females were divided into : Control group (n=20 healthy women ) and Breast cancer patients group( n=37)non-pregnantand not on contraceptive therapy. **Methods:** Clinical examination, ultrasonography of the abdomen and pelvis , preoperative fine needle aspiration cytology and histopathologic examination of breast masses in addition,glucose , creatinine , aminotransferases and Epidermal growth factor were estimated. **Results:** Serum EGF in breast cancer patients was relatively lower than in controls. No significant difference in the serum EGF levels were found in relation to the change in tumor size, type, grade and stage. There was positive correlations between EGF and tumor size (  $p = 0.039$ ) and AJCC stages ( $p = 0.032$ ). In patients having lymph node metastasis, there was significant negative correlation between serum EGF level and the number of lymph node metastasis ( $p = 0.000$ ). EGF level was significantly increased with estrogen receptor(ER) negative than in patients with ER positive ( $p = 0.049$ ). A negative correlation between EGF level and ER positivity ( $p = 0.005$ ) in patients and in the subgroup having LN metastasis ( $p = 0.000$ ). **Conclusion:** The addition of EGF determination could be useful in determining tumor prognosis and the selection of treatment modality with better results obtained on adding Epidermal growth factor receptor in resected tumors

### **O-096 THE EFFECT OF CHEMOTHERAPEUTIC AND DEMETHYLATING AGENTS ON NOTCH SIGNALING PATHWAY IN HEPATOBLASTOMA**

S. Aktas, Z. Zadeoglulari, P. Ercetin, N. Olgun

Dokuz Eylul University, Institute of Oncology, Izmir, Turkey

Hepatoblastoma is a childhood neoplasm of liver. Its molecular mechanisms are not well explored yet. Notch signaling pathway has a crucial role in tumors in many aspects. The aim of this study is to determine the effect of chemotherapeutic and demethylating agents (cisplatin, doxorubicin, 5-azacytidine) in gene expression and methylation status of notch signaling pathway in hepatoblastoma. HepG2 cell line was cultured and the agents and their combinations were applied for 24 hour in pre-optimized 50% lethal doses. After RNA isolation and cDNA converting, expression of 84 custom array genes of notch signaling pathway (SABiosciences, PAT059F-24) was determined by Real Time PCR for each condition. The methylation status of 6 genes that showed more than 5 fold changes compared with control group (tumor cells without agent) were explored by Methylation qPCR Assay. High expressed genes are HDAC1, NFKB1, CHUK, CDKN1A, and CBL. Low expressed genes are DLL1, CD44, FZD2, GLI1, IL17B, LMO2, NOTCH1, LOR, PAX5, PTCRA, SH2D1A, and WISP1. The genes searched for methylation (DLL1, HEY1, DTX1, HDAC1, NOTCH2 and JAG1) were not found to be related with methylation. The high expressed genes are related with cell proliferation. The main signaling genes that are closed to notch in signaling pathway are low expressed in hepatoblastoma. The agents do not show prominent effect of gene expression in many genes and methylation is not the reason of expression changes after chemotherapeutic and demethylating agent application.

### **O-097 TANGERETIN MODULATES CELL CYCLE PROGRESSION AND SENSITIZES OF BREAST CANCER CELLS, MCF-7 AND T47D, AGAINST DOXORUBICIN**

E. Meiyanto\*, A. Hermawan\*, A. Fitriyani\*, S. Junedi\*\*, R. Susidarti\*

\*CCRC-Pharmacy UGM

\*\*CCRC-Pharmacy

Tangeretin showed moderate cytotoxic effect and modulates cell cycle progression against several cancer cell lines. The aim of this research was to investigate cytotoxic activities of tangeretin alone and in combination with doxorubicin on MCF-7 and T47D cells. Cell viability assay of tangeretin, doxorubicin, and their combination were carried out by using MTT assay. Cell cycle distribution was determined by flowcytometry FACS-Calibur analysis. Apoptosis assay was done using double staining method using Ethidium Bromide-Acridine Orange. Tangeretin did not show cytotoxic effect on both MCF-7 and T47D cells, but doxorubicin showed cytotoxic effect with IC<sub>50</sub> 467 nM and 15 nM, respectively. Tangeretin (5, 50 and 100 µM) increased cytotoxic effect of doxorubicin 200 nM and 7.5 nM on both cells. The strongest cytotoxic activity was showed by the combination of 200 nM doxorubicin and 100 µM tangeretin in MCF-7 cells, and 7.5 nM doxorubicin and 100 µM tangeretin in T47D cells. Single treatment of doxorubicin 200 nM and tangeretin 100 µM induced G2/M arrest and G1 arrest, while their combination induced G1 arrest and apoptosis in MCF-7 cells. Tangeretin 100 µM and doxorubicin 200 nM alone induced G1 arrest and G2/M arrest respectively, while their combination induced G2/M arrest but not apoptosis in T47D cells. This research concluded tangeretin and doxorubicin performed synergistic effect on both MCF-7 and T47D cells. Tangeretin is potentially to be developed as co-chemotherapeutic agent for breast cancer, while molecular mechanism need to be explored.

### **O-098 THE EFFECT OF VITAMIN A AND ZINC SUPPLEMENTATION ON SERUM THE VITAMIN, MINERAL AND RETINOL BINDING PROTEIN LEVELS IN WOMEN WITH OVARY CANCER**

M. Aksoy\*, C. Akkoyun\*\*

\*Hacettepe Universitesi, Beslenme ve Diyetetik Bolumu

\*\*Ankara Universitesi

Over cancer incidence is about 23% between all gynecologic cancers. Malign ovary tumors are usually appeared after 50 years of age. The roles of vitamin A or its active form of retinol in cancer are that prevention of cancer formation, control of malign development and abnormal cell activation. Essential element zinc is necessary for synthesis of retinol binding protein (RBP) which binds and makes able to circulation, releasing of retinol from liver. Some cancer patients have low levels of vitamin A and zinc. Twenty five women with ovary cancer (age 40-67) and the same number-age matched health women were included in to the research as subject and control groups respectively. Blood samples were taken from them after diagnose and one month after the vitamin-mineral supplementation. The vitamin supplement was 10 000IU and the mineral was 0.5 mg daily. According to general information the subjects used to have irregular menstrual cycle. The energy, macro nutrients and vitamin A consumption were found to be statistically significant lower than the control group. Moreover the subject's serum retinol, β-carotene, RBP and zinc levels were also statistically lower than the control group. But after one month of supplementation these nutrients levels were increased in their serum compared that of the first level but not reached to the controls value. This result showed that by controlled supplementation of vitamin A and zinc could increase their and RBP levels in serum, and help to increase tolerance of chemotherapy in patients.

### **O-099 IMMEDIATE IMPROVEMENT IN THE QUALITY OF LIFE OF MASTECTOMY PATIENTS**

M. Gupta\*, A. Niketan\*\*

\*Cancer Patients Aid Association

\*\*King George V Memorial

Introduction and objectives After a patient has undergone radical mastectomy, breast prosthesis is the only solution to bring back her normal outer appearance, body balance, comfort level and self-confidence. In developed countries, silicone gel prostheses, in various shapes and sizes are the object of choice. But in developing and poor countries, these imported breast forms prove to be very expensive, not easily available, and due to uncontrolled weather conditions, have a short shelf-life. Methods Therefore we, at the Rehabilitation Centre of Cancer Patients Aid Association, have developed an indigenous alternative to the silicone prosthesis, which is safe, affordable and eco-friendly. The outer layer of this hand-made breast prosthesis is made from stretchable cotton fabric which makes it comfortable for long hours of wear in hot and humid weather also. The inside stuffing is made of machine washable fiber, and the body-mass-weight is provided with a pellet of natural ocean pebbles. Each prosthesis is provided with a 100% cotton, removable, and washable, outer cover. The Prostheses can be stocked in the smallest to the largest of desired sizes. Special sizes can be custom made. Result These breast forms can be easily made economically, in large quantities, stored for long periods, and safely transported to the remotest health care centres, to be sold or distributed free of cost to mastectomy patients. Conclusion Self image is an important part of the recovery process for mastectomy patients and this eco-friendly prosthesis is very safe, affordable and easy to use within weeks of surgery.

## **O-100 15 YEAR REVIEW OF ER STATUS – AN ANALYSIS OF THREE 5-YEAR COHORTS FROM 1994 TO 2008 IN A DEVELOPING COUNTRY IN ASIA**

C. Yip\*, N. Taib\*, K. Mun\*\*

\*Dept of Surgery, University Malaya Medical Centre, Kuala Lumpur

\*\*Dept of Pathology, University Malaya Medical Centre, Kuala Lumpur

Introduction: Studies in western countries have shown that the percentage of ER positive breast cancers are increasing over time. This has been postulated to be the result of mammographic screening leading to the detection of breast cancers at earlier stages. The aim of this study is to review the changes in ER positivity over a 15 year period in the University Malaya Medical Centre, Kuala Lumpur. Methodology: Data on ER status of 3062 patients over a 15 year period from 1994 to 2008 was analysed. The patients were divided into three 5-year cohorts. The ER status were retrieved from pathology reports during this period. ER was determined by immunohistochemistry and a cut-off point of 10% was used. Results: Although not significant, ER positivity increased by about 2% for every 5 year cohort, from 54.3% in 1994-1998, 56.6% in 1999-2003, and 58.3% in 2004-2008. ER positivity was significantly lower in Malays (52%) compared to the Chinese (59.4%) and the Indians (55.1%). ER positivity was also significantly lower in women below 40 years old (51.1%) compared to 40 years and above (58.3%). Malays presented with later stages and at an earlier age compared to Chinese and Indians. Conclusion: As seen in the West, the percentage of ER positive cancers increased over time, and appeared to be related to the race and age of patients. It is possible that ER positive cancers are related to diagnosis at earlier stages.

## **O-101 DEVELOPMENT OF A STANDARDIZED PALLIATIVE CARE PLAN BASED ON NEEDS ASSESSMENT OF CANCER PATIENTS IN A LIMITED RESOURCE SETTING**

N. Elkateb, S. Hashem, M. Elshater

National Cancer Institute, Cairo University

Palliative care is a concept of holistic care for patients who have incurable disease, or those who need symptom relief during complications from which they will recover. It seeks to maximize quality of life for patients and families. Perception and level of experience of health care professional may affect the continuity of care. Nurses need written guidelines to enhance their performance and provide quality palliative care. The purpose of this study is to develop a standardized care plan based on assessment of palliative needs of cancer patients, and evaluate the impact of the implemented care on the quality of care. Methods: A convenient sample of adults and pediatric cancer patients were recruited from the palliative care unit. Patients assessed before and after implementation of the care plan. Setting: National Cancer Institute, Cairo University, Egypt. Tools: 1- Patients structured interview completed by the researchers. 2- Palliative Performance Scale (PPSV2). 3- Problems assessment tools. 4- Checklist for recording activities performed by assigned nurses and facilities available. 5- Nursing guidelines and patients self-care instructions. The presentation will describe the results of patients response before and after implementation of the care plan. Also the significant differences in nursing performance in spite of the shortage of staff and workload. Implications for practice: Palliative care is important specialty, nursing guidelines and educational resources have great impact in improving the quality of care provided during the various stages of illness. Training programs should be adapted to the needs of local setting.

## **O-102 TREATMENT DELAY OF BREAST CANCER IN MALAYSIA**

B. Norsahadah\*, K. Rampal\*\*, M. Rahmah\*\*, N. Naing\*, B. Biswal\*\*\*

\*Unit of Biostatistics & Research Methodology, School of Medical Sciences, Universiti Sains Malaysia, Kota Bharu 16150 Kelantan, Malaysia.

\*\*Department of Community Health, Faculty of Medicine, Universiti Kebangsaan Malaysia, 56000 Cheras, Kuala Lumpur, Malaysia.

\*\*\*Department of Medical Nuclear, Radiotherapy and Oncology, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.

Background: Treatment delay of breast cancer has serious consequences since it is associated with advanced stage and lower survival rate. Research in this area is important because it is preventable. This study was aimed to measure time taken to treat breast cancer and its associated factors. Methods: A prospective study was conducted in five medical centres. Respondents were 328 primary breast cancer patients diagnosed from year 2005 to 2007 and interviewed using standardized questionnaires. Treatment delay was time from symptom recognition to treatment. Kaplan Meier survival analysis and Cox Proportional Hazard models were used for analyses. Results: The mean (SD) age was 47.9 (9.4) years with 79.9% Malay ethnic, 79.3% currently married, 54.9% housewives, 61.0% had high school or higher education and 51.2% low socio-economic status. Respondents in stage I was 5.2%, stage II 38.7%, stage III 44.8% and stage IV 11.3%. Treatment delay ranged between 0.3 months to 16 years with median 6.79 months (95%CI 5.93, 7.64). Factors significantly associated with treatment delay were age (HR 1.4, 95%CI 1.1, 1.8), pregnancy (HR 2.0, 95%CI 1.2, 3.4), weight lost (HR 1.9, 95%CI 1.2, 3.0), axillary lymph node (HR 1.5, 95%CI 1.1, 1.9), initial diagnostic test negative (HR 1.8, 95%CI 1.3, 2.5) and initially refused mastectomy (HR 2.5, 95%CI 1.8, 3.4). Conclusions: Breast cancer patients in Malaysia had treatment time longer compared to those in developed countries. Treatment delay was associated with age, pregnancy, clinical presentation, initial diagnostic test and mastectomy refusal. More awareness campaigns about early treatment are needed.

## **O-103 BRAIN METASTASE**

V. Dong, T. Trinh

VietDuc Teaching Hospital

Objective: Clinical symptoms and images of cerebral MRI and CTscan were described and the result of surgical treatment was assessed and analyzed. Material and methods: Retrospective study. The 79 patients with brain metastase were operated in VietDuc teaching hospital from 1/2005 to 5/2009. The authors described the clinical symptoms and the images of cerebral CTscan and MRI. The result of surgery was assessed (GOS) and analyzed. Results: Among 79 patients, there are 61 men (77.2%) and 18 women (22.8%). Age range from 4 to 79 years old (52 ± 15.2). The primary tumors were identified in 43 patients (54.4%) including 25 lung cancer (58.1%) and 5 digestive cancer (11.6%). The clinical symptoms were headache in 55 (69.6%); vomiting in 11 (13.9%);

hemiplegia in 36 (45,6%) and seizure in 3 (3,8%). The consciousness: 56 patients in full consciousness (70,9%); 22 in confuse condition (27,8%) and one in coma. There were 62 lesions on the 54 images of cerebral CTscan: sphere lesion with central hypodensity in 39 (62,9%); cerebral oedema in 52 (82,8%); contrast enhanced on CTscan in 32/37 (86,5%). There were 87 lesions on the 67 IRM: 55/87 ( 63,2%) with hypersignal in capsula and hyposignal in centre of lesions; hypersignal in 14 (16,1%); severe cerebral oedema in 73/87 (83,9%). Results: total removal in 77 (97,5%) and partial remove in 2. There were one death, severe sequel in 5 (13,4%), mild sequel in 10 (22,7%); good recovery in 28 (61,6%). The follow-up was 3 months or more in 44 patients: the mean survival was  $8,2 \pm 1,2$  months. The risk factor was: age, primary tumors, treatment of primary, RPA criteria and Karnosky Scale before surgery. Conclusion: The brain metastatic tumors were the most frequent cerebral tumors. The results of surgical treatment was good and quality of life was improved.

## **O-104 CONSIDERATION OF XPC ALTERATIONS FOR HEAD AND NECK CANCER**

M. Yang\*, K. Tae\*\*

\*Sookmyung Women's University

\*\*Hanyang University

Xeroderma pigmentosum group C (XPC) participates in the DNA nucleotide excision repair in global genomic repair. Among the studies of genetic susceptibility to squamous cell carcinomas of the head and neck (SCCHN), XPC showed some potential to be involved in initiation or progress of SCCHN. In addition, chromosomal comparative genomic hybridization (CGH) is a well-established technique to evaluate genetic alteration in the entire genome. Thus, I performed CGH analyses in SCCHN tissues of Koreans who were first diagnosed in the hospital and did not occupationally, diagnostically, or therapeutically receive any radiation (N=16: 10.8 yrs; male =15). Most of them were tobacco smokers and alcohol+age, 55.6 drinkers and belonged to Stage IV. As results, I found multiple genetic aberrations throughout the genome. Particularly, losses of gene amplification were condensed at chromosome 3p22~26. Among the altered genes, XPC was located at 3p25.1, which showed decreased expression. In addition, DLCE1, PPARG and TIMP4 were located at 3p22~25. However, copy number alteration on 3p25.1 was not significantly associated with smoking, alcohol drinking, sex, age, or tumor progress. In conclusion, I found that the Korean SCCHN had condensed losses on 3p22~26 and XPC is located there. Thus, the present study genome- widely confirmed the involvement of XPC in occurring of the Korean SCCHN.

## **O-105 IMPACT OF SOCIO-ECONOMIC CLASS ON COLORECTAL CANCER PATIENT OUTCOMES**

C. Kong\*, A. Roslani\*, C. Law\*, D. Law\*\*

\*University of Malaya Medical Center, Kuala Lumpur, Malaysia

\*\*Sarawak General Hospital, Kuching, Malaysia

OBJECTIVE: Research over the past several decades has indicated that low socio-economic class has a direct effect on health outcomes. The objective of this study is to compare the presentation and survival of colorectal cancer patients in two such dissimilar cities, Kuala Lumpur and Kuching. METHOD: All patients diagnosed with colorectal cancer at Kuching and Kuala Lumpur from 1st Jan 2000 – 31st Dec 2006 were recruited. Data on presentation, socio-economic class and survival was obtained. The survival duration was categorized into more than three years or less than three years. No external funding received. RESULTS: A total of 565 patients admitted to Kuala Lumpur and 642 patients to Kuching had a new diagnosis of colorectal carcinoma. However, complete hospital records could be collected and analyzed in only 412 at Kuala Lumpur and 419 at Kuching. None of the patients in our sample were asymptomatic at presentation or diagnosed from screening. Patients at Kuching had longer duration of symptoms and more advanced stage at presentation. Lower socio-economic class was also a significant factor for late and more advanced stage at diagnosis. Three-year survival rate was lower for patients at Kuching and those from lower socio-economic class. CONCLUSION: There is near-zero awareness of colorectal cancer screening in Malaysia. However, poorer survival of patients from Kuching and from lower socio-economic classes is multi-factorial and warrants further detailed research. These findings support reaching out to communities of lower socioeconomic backgrounds to improve the colorectal survival rates.

## **O-106 COMBINED EXPRESSION OF P27 AND P53 IN HUMAN GASTRIC CARCINOMA**

N. Abbas\*, S. El-Sharkawy\*, M. Fadel\*\*, M. El-Shaer\*, M. Badawi\*, W. Abd El-Aal\*

\*Pathology Department, National Research Center

\*\*Pathology Department, Specialized Ain-Shams Hospita

Purpose: Disregulation of the cell cycle is required for the formation of various malignant tumors including gastric carcinoma. This study aimed to evaluate cell-cycle-regulators, p27 and p53, expression in gastric carcinoma by immunohistochemistry and to correlate their expression with other clinicopathological findings. Material and Methods: Eighty-four cases of gastric carcinoma were included in this study. They were classified into intestinal and diffuse types according to Lauren's classification. P27 and P53 expression were correlated with patient's age, histologic type, pathologic grade, lymph node metastasis and tumor tissue invasion. Results: There was non significant correlation between p27 and p53 expression with patient's age or histologic type of the tumor. Loss of expression of p27 was significantly correlated with pathologic grade, lymph node metastasis and tumor tissue invasion. P53 over-expression was more frequently detected in high grade tumors, tumors with lymph node metastasis and high t-stage, but the correlations were statistically non-significance. A significant inverse correlation was detected between p27 and p53 expression. Conclusion: Reduced expression of p27 may influence the progression and metastases to lymph node in gastric tumors. In addition, combined expression of cell-cycle regulators, p27 and p53, may play an important role in the biological behavior of human gastric carcinoma.

## **O-107 ASSESSMENT OF PATIENTS WITH THE EWING SARCOMA FAMILY OF TUMORS WHO WERE FOLLOWED IN THE DR. ABDURRAHMAN YURTARSLAN ONCOLOGY TRAINING AND RESEARCH HOSPITAL, 2ND MEDICAL ONCOLOGY DEPARTMENT**

U. Uyeturk, K. Helvacı, I. Turker, B. Budakoglu, B. Oksuzolu, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey

**INTRODUCTION:** The Ewing sarcoma family of tumors including Ewing sarcoma, primitive neuroectodermal tumor are rarely seen in young adults. The annual incidence is 1.5 cases per million population. They are mostly found in humerus, femur, fibula and unusually in ribs, scapula, pelvis of the skeletal system, and extraosseous location. Twenty to thirty percent of patients present with metastatic disease most often to the lungs. **MATERIAL AND METHOD:** We screened the patients with the Ewing sarcoma family of tumors who were treated and followed between February 2009 and February 2010, retrospectively and recorded the treatment and demographic characteristics. **RESULTS:** In this time period totally 7 patients' files were investigated. Mean age of the patients was 23 (18–31). Five of the patients were men (%71) and 2 were women (%29). All had localized disease at the time of application. The treatment was started with NCI protocol (vincristine, adriamycin, cyclophosphamide, ifosfamide, etoposide). Management of the primary tumor site was made by surgery in 4 patients (chest wall resection in two patients, total abdominal hysterectomy in one patient, axillary dissection in one patient) and by radiation therapy in 3 patients (concurrent with the chemotherapy in two patients, before chemotherapy in one patient). **CONCLUSION:** Early diagnosis and treatment of Ewing sarcoma family of tumors is necessary. Patients should be evaluated and treated with a multidisciplinary approach including surgery, chemotherapy, and radiation therapy. Patients should also be followed closely for early diagnosis of distant metastasis and locally recurrences.

## **O-108 TUMOR SUPPRESSOR HUMAN SPROUTY2 INHIBITS ONCOGENIC TRANSFORMATION MEDIATED BY ENV ONCOGENE FROM JAAGSIEKTE SHEEP RETROVIRUS**

E. Fabian, Y. Chow

National Health Research Institutes

**Introduction and Objective:** Invasion and metastatic potential are properties of malignant cancers that pose severe problems in cancer health care. The envelope gene (Env) of Jaagsiekte sheep retrovirus (JSRV) is an oncogene capable of transforming target cells in vivo and in vitro. In vitro, Env transforms target cells causing anchorage-independent foci formation, while its expression in vivo can cause lung tumors in transgenic mice. Sprouty2 is a tumor suppressor protein and is known to be an inhibitor of many cancers. The objective was to study the ability of tumor suppressor protein human Sprouty2 to inhibit oncogenesis mediated by Env. **Methods:** Lung adenocarcinoma cell line A549 and lung epithelial cell line BEAS 2B were transfected with plasmids expressing Env gene and human Sprouty2 gene. Stable transformants were selected and evaluated in vivo and in vitro functional and biochemical assays. **Results:** Env-mediated transformation induced rapid proliferation and prevented invasion in the transformed cells. The transformants were used to study the tumorigenesis and invasion and the role of intracellular signaling intermediates in promoting or inhibiting oncogenesis. Env transformation of A549 increased the activation of PI3K/Akt pathway and STAT3 leading to increased proliferation, tumor formation and anchorage-independence; suppressed ERK pathway and abolished TWIST expression leading to inhibition of cell migration. **Conclusions:** We have discovered a negative inhibitory relationship between Env and Sprouty2, both acting by modulation of signaling molecules with functional manifestations. Our studies confirm the role of Sprouty2 in suppression of tumor growth and invasion thereby validating its potential for therapy.

## **O-109 LOW NK AND CD4 CELL COUNTS IN THE PERIPHERAL BLOOD PREDICT INFERIOR OVERALL SURVIVAL IN FOLLICULAR LYMPHOMA PATIENTS**

D. Shafer, M. Smith, H. Borghaei, T. Li, S. Litwin, T. Al-Saleem

Fox Chase Cancer Center

Evidence that host immune responses influence follicular lymphoma (FL) patient outcome led us to hypothesize that the immune cell components of the blood may provide a readily accessible assessment of that response. Peripheral blood flow cytometry (PBFCM) data of 82 untreated, mostly newly diagnosed FL patients were retrospectively reviewed. Overall survival (OS) from the time of PBFCM was related to stage, follicular lymphoma international prognostic index and to the absolute counts in blood of: lymphocytes (ALC), CD4+T cells (ACD4C), CD8+T (ACD8C) and natural killer (ANKC) cells. Patients were separated into 1) below or 2) at and above lower limits of normal in our laboratory: ACD4C 500/ $\mu$ l, ACD8C 300/ $\mu$ l, ANKC 150/ $\mu$ l and ALC 1500/ $\mu$ l, as well as testing ALC cutoff of 1000/ $\mu$ l suggested by other reports. Lower than normal ACD4 and ANKC were the only variables associated with inferior OS by univariate analysis ( $p=0.03$  and  $0.02$  respectively). By stepwise selection, ANKC<150/ $\mu$ l was the most significant predictor of inferior OS ( $p=0.05$ ). **Conclusions:** Baseline evaluation of blood ANKC and, to a lesser extent, ACD4C significantly predicts OS in previously untreated patients with FL. Whether improving overall immunity helps control or even prevent FL is an open question for further research..

## **O-110 PSEUDOPROGRESSION IN PATIENTS WITH GLIOBLASTOMA MULTIFORME FOLLOWING CONCURRENT RADIOTHERAPY AND TEMOZOLOMIDE**

B. Pehlivan, O. Yuksel, S. Akkaneren, E. Topkan

Baskent University Medical Faculty, Adana Medical and Research Center, Department of Radiation Oncology

**Background:** We aimed to evaluate the incidence of pseudoprogression in glioblastoma multiforme (GBM) patients treated with postoperative radiotherapy (RT) and concurrent temozolomide (TMZ), followed by 6 months of TMZ maintenance therapy. **Materials and Methods:** A cohort of 54 patients with histologically proven of GBM underwent 60 Gy (2Gy/fr, 5 days a week) of partial brain RT concurrent with continuous 75 mg/m<sup>2</sup>/d TMZ, followed by 6 months of maintenance TMZ (150 mg/m<sup>2</sup>/d) for 5 days every 28 days. Response assessment was performed by magnetic resonance imaging (MRI) with first at 2 months after completion of concurrent RT+TMZ. **Results:** All 54 patients had surgical tumor resection. Gross total, subtotal resection and biopsy were performed in 19 (35.2%), 32 (59.3%), and 3 (5.5%) patients, respectively. Lesion enlargement on first follow-up MRI evidenced in 24 cases and all underwent salvage surgery. Pathologic examination revealed true tumor progression in 15/24 (62.5 %), and pseudoprogression with tumor necrosis in remaining 9 (37.5%). Analysis revealed that 6 of 9 (66.6%) patients with pseudoprogression and only 10 of 45 (22.2%) remaining patients were alive at 2 years. **Conclusions:** Results of current study impacts the clinical importance of pseudoprogression after concurrent TMZ followed by maintenance TMZ therapy in GBM patients. Our results support the idea which suggests pseudoprogression as a sign of subacute radiation killing effect on tumor tissue. Although evident from analysis, due to limited number of patients with pseudoprogression it is difficult to conclude whether it has a real survival enhancing effect in GBM.

### **O-111 ORAL GLUTAMINE SUPPLEMENTATION FOR AMELIORATION OF ACUTE RADIATION INDUCED ESOPHAGITIS HAS NO NEGATIVE IMPACT ON SURVIVAL OUTCOME IN LOCALLY ADVANCED NON-SMALL CELL LUNG CANCER TREATED WITH THORACIC IRRADIATION**

B. Pehlivan, E. Oymak, S. Akkaneren, A. Kotek, E. Topkan

Baskent University Medical Faculty, Adana Medical and Research Center, Department of Radiation Oncology

**BACKGROUND:** We aimed to retrospectively evaluate the survival outcome of 92 patients with stage III non-small cell lung carcinoma (NSCLC) treated with thoracic irradiation (TRT) up to their status of oral glutamine supplementation, which was used for evaluation of its efficacy in prevention of acute radiation-induced esophagitis. **PATIENTS AND METHODS:** Survival outcome of 92 patients with stage III lung carcinoma treated with TRT were retrospectively analyzed regarding their glutamine supplementation status. Forty-eight patients (52.1%) received prophylactic powdered glutamine orally in doses of 10g/8h, while remaining 44 patients did not and served as controls. Prescribed radiation dose to planning target volume was 60-66Gy, in 30-33 fractions, 5 days/week. The primary endpoint included the progression free survival (PFS), overall survival (OS), and their correlation with status of glutamine supplementation. **RESULTS:** Oral glutamine was well tolerated, except for mild nausea in 13 (27.1%) patients. Median follow-up time was 24.2 months (range: 9.2-34.4 months). Median PFS and OS times for glutamine supplemented vs. no supplement cohorts were 15.3 vs. 17.2 months ( $p=0.34$ ) and 20.3 vs. 25.2 months ( $p=0.11$ ), respectively. **CONCLUSION:** Current results suggested no tumor cell protective action for oral glutamine, in the dose and schedule utilized here. The insignificant 4.9 month survival benefit achieved with glutamine may be related either with unpredictable selection bias due to retrospective nature of the study, or limited size of study population. However, regarding the possible selective radiosensitizing effect of glutamine it may worth to address validity of these interesting results in a future prospectively randomized study.

### **O-112 SURVIVAL OUTCOME IN UNRESECTABLE LOCALLY ADVANCED PANCREATIC CARCINOMA PATIENTS TREATED WITH CO-REGISTERED PET-CT BASED RADIATION THERAPY PLANNING WITHOUT ELECTIVE NODAL IRRADIATION**

B. Pehlivan, A. Kotek, S. Akkaneren, E. Topkan

Baskent University Medical Faculty, Adana Medical and Research Center, Department of Radiation Oncology, Kısık Saglık Yerleşkesi, 01120 Adana, Turkey

**Background** We aimed to analyze the survival outcome of 24 consecutive patients with locally advanced pancreatic cancer (LAPC) treated with concurrent chemoradiotherapy without elective nodal irradiation (ENRT) by utilizing co-registered PET-CT based radiation therapy planning. **Methods** Twenty-four patients with histological evidence of unresectable LAPC, those who received 3D-conformal radiotherapy (3D-CRT) concurrent with continuous 5-FU were included. In all patients, 3D-CRT plans were created by utilizing PET-CT fusion data. Gross Tumor volume (GTV) included the metabolically active tumor and lymph nodes, and clinical target volume (CTV) and planning target volume (PTV) were defined as CTV= GTV+1.5cm, and PTV= CTV+0.5cm at any margin, respectively. ENRT for uninvolved nodal basins was not permitted. Response assessment was performed with PET-CT every 2 months in the first year, and every 4 months thereafter. **Results** Median follow-up time was 17.1 months (4.7- 27.3 months). Infield failures were evident in 14 (58.3%) patients. Median progression-free survival (PFS) and overall survival (OS) for all study population were 8.9 mo and 16.3 mo, respectively. At 2-years 11 patients (45.3%) were alive. Cause for death for 13 patients were; liver metastasis (N=4), peritoneal seeding (N=4), and widespread multiorgan metastasis in remaining. Analysis revealed that patients with  $\geq 72\%$  SUVmax reduction had longer PFS (6.8 mo vs 15.1 mo;  $p=0.002$ ) and OS (11.3 mo vs 22.9 mo;  $p=0.01$ ) than those with  $<72\%$ . **Conclusion** Change in metabolic tumor activity after concurrent chemoradiotherapy may predict outcome in LAPC. However, this interesting results need confirmation with larger study populations.

### **O-113 CHARACTERISTICS OF OUR BREAST CANCER PATIENTS UNDER 35 YEARS OLD**

F. Erozyen, Y. Ersoy, M. Akaydin, N. Memmi, A. Simsek Celik, D. Guzey, F. Celebi, S. Birol, R. Kaplan

Vakıf Gureba Training and Research Hospital, 2. General Surgery Clinic

**Purpose:** Early age breast cancers are different from other breast cancers on behalf of their aggressivity and serious psychological problems related to young age. **Method:** Among 318 patients who admitted to our Breast Diseases Outpatient Clinic between March 2005-June 2009 and diagnosed with breast cancer, 24 (7.54%) were under 35 years old. Medical records were investigated retrospectively. **Results:** Main complaint was breast mass. Pregnancy, family history, axillary mass and nipple discharge were established in 1, 2, 2 and 2 patients, respectively. Two patients did not have a child and 22 had mean 2.4 children (range 1-5). Mean age of the patients was 29.5 years (range 19-35), and mean tumor diameter was 3.4 cm (ranging from non-palpable to 10 cm). Tumors were localized in the left breast in 14 patients and right breast in 10. Four patients received neoadjuvant chemotherapy because of advanced breast carcinoma. Breast conserving surgery was performed in 8 patients, on the other hand 16 had modified radical mastectomy. Pathological results were reported as lobular carcinoma in 2 cases and invasive ductal carcinoma in 22. Estrogen, progesterone and cerb2 receptors were positive in 5, 4 and 6 patients, respectively and 10 patients were triple negative. Three patients had metastatic disease. **Conclusion:** In our series breast carcinomas under 35 years old composed 7.54% of all breast carcinomas. Mean rate reported worldwide is 2.7%. Our higher rates and larger tumor sizes distinguished our series from the others. We believe that in young patients also, palpable lesions should closely be followed and pathological verifications should be obtained.

### **O-114 THE GW CANCER INSTITUTE CENTER FOR THE ADVANCEMENT OF CANCER SURVIVORSHIP, NAVIGATION AND POLICY (CASNP): EXECUTIVE TRAINING TO CREATE SUSTAINABLE PROGRAMS**

S. Patierno\*, M. Chapman\*, R. Beauregard\*\*, L. Friedman\*\*\*, E. Calhoun\*\*\*\*, L. Alexander\*\*\*\*\*, M. McCabe\*\*\*\*\*, A. Shimooka\*\*\*\*\*, M. Truneh\*

\*The George Washington University Cancer Institute

\*\*The George Washington University Department of Health Policy

\*\*\*The George Washington University School of Public Health and Health Services

\*\*\*\*University of Illinois at Chicago School of Public Health

\*\*\*\*\*The George Washington School of Medicine and Health Sciences

\*\*\*\*\*Memorial Sloan-Kettering Cancer Center

\*\*\*\*\*The Advisory Board Company

Background: Patient navigation and cancer survivorship programs recently emerged to improve access to care and quality of life for cancer patients. Funded by the Pfizer GHP Program, the caSNP integrates navigation, survivorship and policy through a multi-tiered training program and comprehensive health policy analysis. We build the organizational capacity of other institutions and improve access to quality cancer care for all patients, particularly the underserved. Objectives: Our executive training improves the capacity of other institutions to sustain patient-centered programs. It equips trainees with skills to create a business plan, conduct a needs assessment and organizational resource inventory, apply best practices, measure metrics for success and drive organizational change. Methods: caSNP trains students, navigators, health care executives, and cancer leaders in navigation, survivorship, sustainable program development and health policy. Our executive training was developed by a team of diverse professionals with expertise in navigation, survivorship, cancer program consulting, and organizational change. Results: Through our multi-tiered programs, we have trained 10 navigators, 13 graduate students, and 133 health care providers and survivors and provided health reform analyses to 4,400 government leaders and advocacy organizations in one year. Our executive training will build capacity for twenty international organizations in 2010. Conclusions: caSNP trains navigators to remove barriers to timely care for cancer patients; equips institutional leaders to develop, launch and sustain patient-centered programs; fosters collaborative research to reduce health inequities; and informs the national debate surrounding health reform in the U.S. The program improves delivery systems, access to care, and training opportunities for cancer healthcare workers.

### **O-115 PREDICTORS OF ADHERENCE TO LONG TERM FOLLOW UP CARE IN CHILDHOOD CANCER SURVIVORS**

M. Okcu\*, L. May\*, L. Laufman\*, S. Holm\*, K. Kamdar\*, L. Harris\*, T. Harris\*, C. Provenzala\*, S. Unal\*\*, G. Oktay\*\*\*, R.

Bryant\*, Z. Dreyer\*, E. Fruge\*

\*Baylor College of Medicine

\*\*Haccettepe University

\*\*\*Cerrahpasa University

Adherence to cancer-related follow up care after cancer therapy is an understudied area. Lack of adherence in this setting is common and the reasons are yet unknown. Objective: To identify variables associated with adherence to follow-up after therapy completion in pediatric patients diagnosed with cancer. Methods: A retrospective chart review of all patients diagnosed between 1998 and 2001 at Texas Children's Cancer Center (n=488) was conducted. Medical records were reviewed and selected variables were compared between the patients who continued to attend appointments and those who were lost to follow-up. Results: Notably 258 (52.8%) were lost to follow-up. Those who attended were on average, 1.6 years younger at diagnosis compared to the lost to follow-up group (5.9 years vs. 7.5 years, respectively,  $p=0.001$ ). In univariate analyses African American race, brain or solid tumor diagnosis, surgery as the sole therapy, single-parent household, living in an apartment, mobile home or a trailer were associated with a greater likelihood of being lost to follow-up ( $p<0.05$ ). In multivariable analyses, having surgery as the sole therapy (OR 1.9, 95%CI 1.1-3.1), and single parent household (OR 2.8, 95%CI 1.7-4.6) were independently associated with being lost to follow up. Conclusion: In this pilot study a variety of patient and clinical characteristics were associated with non-adherence to follow-up care. Future research goals include validation of this study and designing intervention strategies to improve the quality of long term care and adherence for survivors of pediatric cancer.

### **O-116 FACTORS INFLUENCING QUALITY OF LIFE FOR WOMEN WITH BREAST CANCER IN PALESTINE**

M. Samara-Awad, H. Saca-Hazboun

BETHLEHEM UNIVERSITY

Quality of life (QOL) is a crucial issue throughout the cancer continuum and it is affected by the multifaceted outcomes experienced by the person, such as physical health, psychological state, level of independence, social relationships and relationship to the environment (WHO Quality of Life Group, 1995). Quality of life differs from culture to culture, where each culture assigns different importance to various aspects of life. The research is a descriptive study that investigates the four domains of quality life: physical, psychological and spiritual well being as well as social concerns (Ferrell, et al, 1996) among women with breast cancer in Palestine. The sample included 108 women with breast cancer who were attending oncology clinics. The questionnaire has two parts: the first part included demographic data as well as data related to health in general whereas the second was developed by Ferrell, et al (1996). Data collection was conducted through face to face interview to decrease bias as there might be illiterate women. The results showed that 32.4% of women were below 40 years of age, and 56.5% live in the city, also, 39.8% of women were diagnosed in stage 2 and stage 3 respectively. Quality of life domains was assessed and women had moderate quality of life in three of the domains: physical well being (mean = 2.37), psychological well-being (mean = 2.63) and social concern (mean = 2.29) while the spiritual wellbeing domain is the highest (mean = 3.03).

### **O-117 THE EFFECT OF HYPNOTHERAPY ON SURGERY COMPLICATION OF BREAST CANCER**

S. Najafi, Z. Mohebi, K. Nejatkakhsh

Yasuj Medical Science University – Iran

Introduction: About 56.0 million death have been occurred in the year 2000 throughout the world out of which 12.0% resulted from cancer. In this year, 5.3 million men, 4.7 million women suffered from cancer and 6.2 million persons died due to the cancer. The most prevalent cancer in the world is breast cancer in such a way that it is allocated 17.9% of total cancers and now a days is one of the biggest health intricates of present societies. The creating cause of this disease is unknown although some risk factors like HRT, genic mutation, age increment, radiotherapy, positive familial history, etc. may interfere in its occurrence. Treatment of breast cancer: One of the methods which can have diagnostic or treatmental aspects is surgery which it self is accompanied with some complication like pain, nausea and vomiting, fatigue, etc. These complication increase the hospitalization period of the patients and their need to the medicinal treatments resulted in increment of hospitalizing expenses. For this reason, researches have been interested in using such methods that, can minimize the surgery complication and one of the considered method is hypnotherapy. This is a type of treatment in which person is affected by positive inductions. This method of treatment was approved by medical association of America in the year 1958 and was introduced as one of the legal treatmental methods. Hypnotherapy is among the methods which

can affect both physical as physical as well as psychological diseases. The result of a study carried out in USA on 200 women nominated for bypass or chest surgery showed that ,pain score and nausea in those who received hypnotherapy before surgery was 22.4 and 6.5 while ,this rate in control group was 47.8 and 25.4 respectively. In addition ,the rate of fatigue and physical disorders ,etc in hypnotherapy receiving group have been less than that of control group .In total ,estimations showed that, on an average the expenses of hypnotherapy groups was 770 Dollars less than that of control groups which resulted from decrement of their hospitalization and their need to use other medicines. Conclusion: This method of treatment decreases the preoperation stress and therefore the need rate of patients to use sedatives will be less resulting in less time of patient presence in operation room. Therefore ,we can say that, hypnotherapy can be used for patients who are going under breast cancer operation with the aim to minimize expenses and complication. Key words: Hypnotherapy , Complication, Breast Cancer

## **O-118 COPING STRATEGIES AND QUALITY OF LIFE ADOPTED BY LUNG CANCER PATIENTS**

**N. Agarwal\***, B. Yeole\*\*, U. Ram\*

\*International Institute for Population Sciences

\*\*Bombay Cancer Registry, Indian Cancer Society

Introduction: Cancer outcomes are usually measured in terms of overall survival rates. Although these outcomes remain essential, but there is a need to assess the impact of cancer and its treatment on patients health related quality of life. In developing countries where 85% patients are detected in advance stages undergoing aggressive treatment which duly interfere with their general health related parameters and affect their social life. Objective: To examine the coping strategies and quality of life adopted by lung cancer patients in Greater Mumbai. Methods: Lung cancer has a very poor prognosis hence; newly diagnosed patients registered at different hospitals were contacted for the present study. Quality of life was measured using standard instruments; the Medical Outcomes Study- Short Form Survey Instrument (MOS-SF-36), depression scale, social support scale were studied by interviewing patients at their residence after taking their informed consent. Results: A total of 42 patients confirmed for their illness with primary site as lung registered in the year 2008 were interviewed. Strong family support, positive thinking and purpose of life played a key role in fighting with the disease. An appropriate health seeking behaviour, good general medication and emotional support from family and friends were revealed to be very important factors for coping. The quality of life was also found to be not only the outcome of the disease and its treatment, but is also highly dependent on each patient's socioeconomic characteristics. Conclusion: Despite the small sample size, the findings broadly provide a base for large-scale future studies and suggest intervention.

## **O-119 THE EFFECT OF WHEY PROTEIN AND WHEY PROTEIN HYDROLIZATE AGAINST AZOXYMETHANE AND DEXTRAN SODIUM SULFATE-INDUCED COLON TUMORS IN RATS**

W. Attaallah\*, N. Erdogan\*\*, L. Ergun\*\*, A. Yilmaz\*\*\*, A. Yalcin\*\*\*, A. Aktan\*\*\*

\*1. Marmara University Faculty of Medicine

\*\*2. Taksim Training and Research Hospital

\*\*\*Marmara University Faculty of Medicine

In this study we examined the protective effect of dietary whey protein (WP) and whey protein hydrolysate (WPH) against colorectal cancer development in rats. Wistar albino male rats (13 weeks) recieved AOM once a week for 2 weeks (s.c., 15mg/kg). Seven days later, %2DSS was added to the drinking water over 5 days, followed by 15 days of regular water. This cycle was repeated 4 times. Tumor group (n = 11) received only AOM and DSS, while tumor + WP group (n = 11) and tumor + WPH group (n = 9) additionally recieved in order WP and WPH 2cc/rat by gavaj 2times/week, along 15 weeks. At the end of 15 weeks macroscopic and microscopic tumors were identified. Biochemical analysis peromed by measure lipid peroxidation (MDA), protein oxidation (PCO) and glutathione (GSH) levels in both of removed colon and liver tissues. In Tumor and tumor + WP groups macroscopic tumor development was 91.9% while in tumor+WPH group it was 33% (p = 0.004). Early adenoma in tumor group was 90.9%, in tumor+WP group; %45.5 and statistically non significant (p=0.06) while in tumor+WPH group this rate failed to 33% (p = 0.02). Widespread dysplasia in tumor group was 91%, in tumor +WP group 82%, in tumor+WPH (% 0 ) (p <0.001). There was no significant differences between the groups in the biochemical values. Conclusion, the method applied for colorectal cancer model was successful and colon tumor development is not prevented by WP while WPH found to be useful in preventing tumor development.

## **O-120 HUMAN MENA+11A ISOFORM AS POTENTIAL MARKER OF EPITHELIAL PHENOTYPE AND SENSITIVITY TO EPIDERMAL GROWTH FACTOR RECEPTOR INHIBITION IN HUMAN PANCREATIC CANCER**

M. Pino\*, M. Balsamo\*\*, F. Di Modugno\*\*\*, M. Mottotese\*\*\*\*, M. Alessio\*\*\*\*\*, E. Melucci\*\*\*\*\*, M. Milella\*, P. Natali\*\*, P. Nisticò\*\*

\*Division of Medical Oncology, Regina Elena Cancer Institute, Rome, Italy

\*\*Laboratory of Immunology, Regina Elena Cancer Institute, Rome, Italy

\*\*\*Experimental Chemotherapy, Regina Elena Cancer Institute, Rome, Italy

\*\*\*\*Laboratory of Pathology, Regina Elena Cancer Institute, Rome, Italy

\*\*\*\*\*Proteome Biochemistry, Dibit, San Raffaele Scietific Institute, Milan, Italy

Amplification and/or overexpression of the EGF receptor and its ligands characterize a variety of human malignancies including pancreatic cancer. Receptor engagement activates signalling networks controlling tumor cell proliferation and mobility through rearrangement of cell cytoskeleton. hMena member of the enabled/vasodilator-stimulated phosphoprotein family, is a cytoskeletal protein involved in the regulation of cell motility and adhesion, thus its potential role in modulating sensitivity to EGFR tyrosine kinase inhibitors could be exploited clinically as targeted treatment. To explore this issue human pancreatic adenocarcinoma cell lines were characterized for in vitro sensitivity to erlotinib, expression of HER family receptors, markers of epithelial to mesenchymal transition and expression of hMena and its hMena+11a isoform. The effects of epidermal growth factor (EGF) and erlotinib on hMena expression as well as the effect of hMena knockdown on cell proliferation were also analyzed. hMena was detected in all of the pancreatic tumor cell lines as well as in primary (92%) and metastatic (86%) tumor samples. In vitro, hMena+11a characterized the tumor epithelial phenotype, EGFR dependency, and sensitivity to erlotinib. Epidermal growth factor up-regulated hMena/hMena+11a and erlotinib down-regulated its expression. hMena knockdown reduced cell proliferation and mitogen-activated protein kinase and AKT activation cells, and promoted the growth inhibitory effects of erlotinib. Collectively, these findings demonstrate that the



hMena+11a isoform is associated with an epithelial phenotype and identifies EGFR-dependent cell lines sensitive to the EGFR inhibitor erlotinib. The availability of anti-hMena+11a-specific probes may offer a new tool in pancreatic cancer management which is currently validated prospectively.

### **O-121 THE CORRELATION OF LOWER UTERINE SEGMENT INVOLVEMENT WITH LYMPH NODE METASTASIS IN ENDOMETRIAL CARCINOMA:**

G. Fabul Amparo, L. T. Cole

Jose R. Reyes Memorial Medical Center

**ABSTRACT Objective:** To determine the relationship between lower uterine segment involvement (LUSI) and lymph node metastasis in surgically staged endometrial carcinoma patients. **Study Design:** A retrospective analysis was done on all patients diagnosed with endometrial carcinoma from April 1999 to February 2008. Patients who underwent complete surgical staging and found to have lower uterine segment involvement were included. Slides were reviewed by a single pathologist. The primary endpoint is the presence of nodal involvement. Comparison/association of the different variables under study was done using the following test statistics: Chi-square test, Fisher Exact test and logistic regression. Odds ratios (OR) with 95% confidence interval were calculated. **Results:** One hundred and ninety-nine patients (199) were included in the review. Forty-five (45) were found to have lower uterine segment involvement, sixteen (35%) of which had nodal metastasis. Out of the 154 patients without LUSI, sixteen (10%) were found to have nodal metastasis ( $p=0.0001$ ). Both for univariate and multivariate analysis, lower uterine segment involvement, lymphovascular space invasion and deep myometrial invasion were found to be predictive of nodal spread. **Conclusion:** Lower uterine segment involvement may be an important predictive factor of lymph node metastasis for endometrial cancer patients with epithelial type of endometrial cancer.

### **O-122 PALLIATION OF EXTRAHEPATIC BILIARY MALIGNANCIES WITH SEMS**

M. Akaydin, Y. Ersoy, F. Erozgen, F. Celebi, N. Memmi, E. Ferlengez, R. Kaplan

Vakif Gureba Training and Research Hospital, 2. General Surgery Clinic, Istanbul, Turkey

**Introduction and Objectives:** Self-expandable metallic stent(SEMS) placement is an effective method for palliation of unresectable malignant extrahepatic biliary tumors(MEHBT) that usually are preterminal situations and often receive palliative care only. In this study we present our experience with the use of SEMS for MEHBT. **Methods:** We performed a retrospective review of all patients undergoing Covered Nitinol SEMS placement between April 2003 and January 2010 for MEHBT. **Results:** We identified 46 patients (26 men, 20 women) whose mean age was 70.3 years (range 41- 85 years). 61 ERCP (endoscopic retrograde cholangiopancreatography) procedures were performed in 46 patients and 48 SEMS were placed for recurrent jaundice and cholangitis. 6 patients initially had plastic biliary stents placed for MEHBT and in 2 patients cannulation of the papilla was unsuccessful. No procedural complications were encountered. Recurrent jaundice and cholangitis developed secondary to incrustation of bile sludge in 6 patients and tumor overgrowth in 1 patient. Second SEMS was placed in one of the patients with bile sludge and in the patient with tumor overgrowth. Among the remaining 5 patients, occluded stent was recanalized with balloon in one, plastic stents were placed in two and medical therapy was started after stent control with ERCP in two. **Conclusions:** SEMS for palliation of MEHBT effectively relieves jaundice, prevents cholangitis and improves quality of life. It provides a safe, less invasive alternative to surgical palliation with an acceptable clinical outcome for patients who are poor candidates for curative resections because of inoperability or unresectability.

### **O-123 DEMOGRAPHIC AND CLINICAL FEATURES IN UPPER URINARY TRACT TRANSITIONAL CELL CARCINOMA SERIES; WHAT HAVE WE LEARNED IN 22 YEARS?**

L. Gunay, B. Akdogan, A. Koni, A. Dikmen, C. Bilen, H. Ozen

Hacettepe University, School of Medicine, Department of Urology

**Purpose:**We have analyzed our database for demographic and clinical course of the upper urinary tract transitional cell carcinoma(UUTTCC). **Material-Method:**The records of patients who were treated for UUTTCC since 1987 in Hacettepe Hospital were reviewed. **Results:**From 1987 to 2009, 92 patients were treated surgically for UUTTCC.Eighty eight patients' records were eligible for analysis(male:75, 85.2%;female:13, 14.8%).Mean age was  $60.4 \pm 1.25$  years(median:62 years, range:30-82).40.9% of the patients were younger than 60 years old.The rate of UUTTCC diagnosis in three time intervals for 22 years was 24%, 29%, 35%.Most frequent complaints at diagnoses were hematuria and pain (73.9% and 13.6% respectively).Eighteen patients (20.5%) were diagnosed during none muscle invasive bladder cancer follow up (median time to diagnosis was 24 months).The rate of anemia, nonfunctional kidney, smoking and urolithiasis history were 30.7%, 21.6%, 68.2% and 31.8% respectively.Primary tumor was located in the renal pelvis in 71.6% and in the ureter in 28.4%.76 open,10 laparoscopic nephroureterectomies and 2 segmental ureterectomies were performed.Preoperative and postoperative median Hb and serum creatinine values were 13.2/11.6 gr/dl and 0.9/1.3 mg/dl respectively.Mean postoperative hospitalization time was 7 days.The invasive and high grade tumor rates were %52.3 and 45.5%.Bladder recurrence, local recurrence and distant metastasis were detected in 38.6%, 12.5% and 17% respectively.Time to local or distant metastasis was 12 months(2-48). Five years survival rate was 63.02%.The distant metastasis locations were lungs, liver, bones and brain. **Conclusion:**UUTTCC incidence is increasing.Demographic specialties should be considered in diagnosis.Due to frequent recurrences the UUTTCC patients should be followed up closely.

### **O-124 MITOXANTRONE IN DOCETAXEL RESISTANT PROSTATE CANCER, IS IT A FEASIBLE ALTERNATIVE?**

B. Akdogan, L. Gunay, Y. Tahir, Y. Kirdal, O. Kara, H. Ozen

Hacettepe University, School of Medicine, Department of Urology

**Purpose:** Docetaxel treatment causes a better survival than mitoxantrone in castration-resistant prostate cancer (CRPC). The aim of the study was to analyze mitoxantrone response in case of progression under docetaxel. **Method:** Eighteen patients whose disease progressed under docetaxel (18/83) and treated with three-weekly 12 mg/m<sup>2</sup> mitoxantrone from December 2004 through December

2008 were included in the study. Results: Mean age at diagnosis and mean time to CRPC status were 63.4±1.7 years and 42.3±7.4 months, respectively. Mean PSA levels before docetaxel and before mitoxantrone treatment were 168.7±43.4 and 1063.6±448 ng/ml, respectively. Mean cycle for docetaxel and mitoxantrone were 8.4±0.9 and 4.6±0.6. PSA response rates in 4 and 8 cycle of docetaxel and 4 cycle of mitoxantrone treatment were 44.4% and 36.1% and 33.3%, respectively. Mean survival of patients with mitoxantrone after docetaxel was 10.17±1.38 (%95CI=7.46-12.88) months. Conclusions: Mitoxantrone is an important salvage chemotherapeutic for CRPC patients with reasonable survival and PSA response rates, even following docetaxel resistance.

## **O-125 THE EFFECTS OF ALOPECIA ON BODY IMAGE AND QUALITY OF LIFE OF THE TURKISH WOMEN WITH CANCER**

G. Can\*, O. Ero<sup>l</sup>\*\* , A. Aydin<sup>er</sup>\*\*\*

\*Istanbul University, Florence Nightingale School of Nursing, Istanbul, Turkey

\*\*Trakya University, Faculty of Health Science, Edirne, Turkey

\*\*\*Istanbul University, Institute of Oncology, Istanbul, Turkey

Introduction and objectives: Alopecia is a common side effect of chemotherapy regimens. This study aimed to determine the effects of chemotherapy induced alopecia on body image and quality of life of the women with cancer. Methods: A total of 204 women who received hemotherapy in Istanbul University Institute of Oncology Clinic in Turkey were randomly selected. Data were collected by using personal information form, Body Image Scale for assessing body image changes and Nightingale Symptom Assessment Scale for assessing quality of life of the patients. Data were obtained by using percentage, mean, Mann-Whitney U and Kruskal Wallis tests and Spearman's correlations.  $p < 0.05$  was considered statistically significant. Results: Average age of the women was 49,51±13,59. Of the group 81% were married, 68% were housewife, 86% had middle level of income. It was determined that women who had an operation were disturbed because of the operation sign. As the age decreased, women's feeling of themselves sexually less attractive increased. In comparison to women not using head cover, women using head cover got in difficulty to look at their body when they are naked and also look at the sign of the operation. As the chemotherapy induced symptoms increased, quality of life decreased and the body image disturbance increased. Conclusions: Health professionals should be educated about the effects of chemotherapy induced alopecia which has the potential to affect various aspects of patient's life, but the extent of impact and available methods used to decrease alopecia need to be prospectively studied.

## **Screening**

## **O-126 EVALUATION OF VISUAL INSPECTION WITH ACETIC ACID AND LUGOL'S IODINE AS PRIMARY SCREENING TESTS: A POOLED ANALYSIS OF 18 POPULATION-BASED STUDIES IN CHINA**

M. Lin\*, F. Zhao\*\*, R. Zhang\*\*, S. Hu\*\*, W. Zhang\*\*, X. Zhang\*\*, Y. Qiao\*\*

\*Cancer Institute and Hospital, Chinese Academy of Medical Sciences; Fogarty International Clinical Research Scholars Program; Washington University in St. Louis, School of Medicine

\*\*Cancer Institute and Hospital, Chinese Academy of Medical Sciences

Introduction/Objectives: Cervical cancer is the most common cancer among women in developing countries. These areas often lack the infrastructure required for conventional cytology screening programs. Visual inspection with acetic acid (VIA) and with Lugol's iodine (VILI) have been recommended in low-resource settings because of affordability and ease of implementation. In this study, we assessed the performance of VIA and VIA with VILI (VIA/VILI) as primary screening tools in various urban and rural areas in China. Methods: We pooled data from 18 population-based studies conducted from 1999-2008 in various parts of China. All women received visual inspection by trained physicians, human papillomavirus DNA testing (HC2), and liquid-based cytology. Women received colposcopy and directed biopsy if positive for any of these tests. In some studies, women received random biopsy. Results: In total, 30,031 women aged 17-59 years were screened with VIA and 8,729 with VIA/VILI. There were 949 cases of CIN2+, with 52 cervical cancer cases found in all. The positive rate for VIA was 10.9%. The sensitivity and specificity for VIA using CIN2+ and CIN3+ as cutoffs were 48.9% and 90.2%, and 56.1% and 89.7%, respectively. Among the population which received both VIA/VILI, the sensitivity increased by 13.0% when VILI was added to VIA at the CIN2+ cutoff. Conclusions: Visual inspection is a viable option to screen for high-grade cervical lesions in low-resource areas. The addition of VILI to VIA can increase the sensitivity of visual inspection to detect cervical precancer and cancer.

## **O-127 A STUDY OF CERVICAL CANCER SCREENING ALGORITHMS IN CHINA**

F. Zhao\*, W. Zhang\*, Q. Pan\*, L. Li\*, W. Chen\*, B. Liu\*, J. Ma\*\*, S. Hu\*, Y. Qiao\*

\*Cancer Institute/Hospital of Chinese Academy of Medical Sciences, Peking Union Medical College

\*\*Women and Children hospital, Xiangyuan county, Shanxi Province

Objective To study cervical cancer screening algorithms which are suitable to regions with different health-resource settings, and promote the prevention and control of cervical cancer in China. Methods 1997 women aged 35-45 from a rural area in Shanxi Province in China were screened for cervical intraepithelial neoplasm by six screening tests, which included ThinPrep Pap, Fluorescence Spectroscopy, visual inspection with 5% Acetic acid (VIA), Colposcopy, Self-sampled HPV DNA and clinician-sampled HPV DNA, and each woman had the histopathology diagnosis. Different screening algorithms were developed by combining the screening tests in parallel or in serial, and the performance index of the algorithms for detecting the high grade lesions (CIN 2+) were compared. Results In total, there were ten algorithms generated. The sensitivity, specificity and colposcopy referral rates were reported for the main four algorithms as the following, 93.0%, 89.9%, and 13.7% for cytology as the primary screening test with ASC-US women triage by HPV DNA testing; 69.0%, 95.2%, and 7.5% for VIA as primary screening test with VIA positive women triage by HPV; 65.9%, 95.2% and 7.4% for HPV as primary screening test with HPV positive women triage by VIA. Conclusion Considering health-resource settings, the two combinations of cytology and HPV DNA testing are suitable for the urban areas, and the two combination of VIA and HPV DNA testing would be useful and feasible in the rural areas if the affordable HPV test is available in the

developing countries.

#### **O-128 POPULATION BASED ESOPHAGEAL CANCER SCREENING PROGRAM IN HIGH RISK REGIONS IN RURAL AREA IN CHINA**

W. Wei, G. Wang, Y. Qiao, Z. Dong

Department of Cancer Epidemiology Cancer Institute/Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College

Background: Based on previous studies from high risk area, The China central government launched a population based esophageal cancer screening program since year 2005. Objective: To explore the feasibility of endoscopic screening technology and further decrease the mortality, increase the early detection and treatment rate as well as the five-year survival rate for esophageal cancer in high risk area. Method: Endoscopic examination with iodine staining as well as questionnaire was conducted in residents aged 40-69 years from local village. Endoscopic Mucosal Resection or Argon Plasma Coagulation was performed for any detected high grade dysplasia, esophageal cancer in situ and intramucosal carcinoma, while routine therapy was for advanced carcinoma. Result: The program was conducted in eleven high risk areas of esophageal cancer. By the end of year 2009, 56,594 subjects have been screened by endoscopy. 1086 cancer cases have been detected. Especially, 1082(84%) cases are early stage of cancer. 860(67%) residents who were detected as precancerous lesions and carcinomas have been treated. The program will be expanded to 53 screening rural areas in year 2010. Conclusion: Endoscopy with iodine staining screening technology is feasible in high risk area in China. It was well acceptable by residents and supported by governments. Precancerous lesions and early stage of esophageal cancer can be detected by local doctors after training. This program provides practicable experience of esophageal cancer screening in rural area in other developing countries.

#### **O-129 A CROSS SECTIONAL STUDY: THE INVESTIGATION OF CERVICAL CANCER AND HPV PREVALENCE IN UYGUR WOMEN OF XINJIANG**

M. Niyazi\*, L. Li\*, Y. Qiao\*\*

\*Department of Gynecology, Xinjiang Autonomous People's Hospital

\*\*Department of Cancer Epidemiology, Cancer Institute, Chinese Academy of Medical Sciences/Beijing Union University

Objectives: To study the prevalence of cervical cancer and HPV infection in Uygur women in Xinjiang. Methods: There are 883 Uygur healthy women selected in Yutian county in Xinjiang in randomly for cervical cancer screening. All women accepted HPV test. The women with HPV positive result accepted the biopsy in the direction of colposcopy. Results: The total HPV prevalence is 8.23% in Uygur women in Xinjiang. Among them, the prevalence of high-risk HPV, low-risk HPV, high-risk HPV combined with low-risk HPV are 6.68%, 1.02% and 0.57% respectively. The prevalence of high grade cervical intraepithelial neoplasm and cervical cancer in Yutian Uygur women are 1.70% and 0.23% respectively. The prevalence of high-risk HPV infection (7.25%) is higher than low risk HPV infection (1.59%) and high risk HPV infection combined with low risk HPV (0.57%). The highest HPV prevalence of CIN2 or above CIN2 are 30-34 years old and 45-49 years old. The prevalence of high risk HPV infection has a tight correlation with cervical cancer ( $r=0.989$ ). Conclusions: The prevalence of cervical cancer of Xinjiang Uygur women is higher than other reports in han races in China. The prevalence HPV infection has its characteristic related to race. For the Uygur women above 30 years old, the more inspection and notice should be given.

#### **O-130 MAIN CONCEPT OF THE JAPAN MULTI-INSTITUTIONAL COLLABORATIVE COHORT STUDY (J-MICC STUDY): CONFIRMATION AND DETECTION OF GENE-ENVIRONMENTAL INTERACTIONS FOR CANCER**

K. Wakai, N. Hamajima

Nagoya University Graduate School of Medicine

Information on genotypes interacting environmental factors would be useful to identify high-risk individuals for lifestyle-related diseases. The Japan Multi-Institutional Collaborative Cohort (J-MICC) Study launched in 2005, supported by a grant from the Ministry of Education, Culture, Sports, Science and Technology of Japan. Although it mainly aims to detect and confirm gene-environmental interactions in cancer and other lifestyle-related diseases through the cohort study, it includes cross-sectional analyses and screening of biomarkers for early diagnosis of cancer. Ten research groups throughout Japan are recruiting participants aged 35 to 69 years from general populations, health check-up examinees, or patients at a cancer hospital, with a target number of 100,000. The participants complete a questionnaire on medical and lifestyle factors, donate blood samples (serum, plasma, and buffy coat), and provide detailed written informed consent. They are to be followed through 2025 for incidence of cancer and death of all causes, using population- or hospital-based cancer registries, medical records, and death certificates, etc. The data and blood samples are anonymized at each study center with an identification number (J-MICC ID) and sent to the J-MICC Central Office at Nagoya University Graduate School of Medicine. As of September 2009, about 56,000 men and women participated in the study. We are now conducting a cross-sectional study to elucidate the association of genotypes of 108 polymorphisms with obesity, hypertension, glucose intolerance, dyslipidemia, chronic inflammation, and drinking and smoking habits, etc. The cohort study is expected to produce many fruits for cancer prevention.

#### **O-131 BREAST CANCER SCREENING AMONG RURAL WOMEN IN MALAYSIA**

P. Parsa\*, N. Parsa\*\*, M. Kandiah\*\*\*, H. Abdul Rahman\*\*\*, N. Zulkefli\*\*\*

\*Hamedan University of Medical Sciences

\*\*University Putra Malaysia

\*\*\*Faculty of Medicine and Health Sciences, University Putra Malaysia

This study aimed to examine the utility of the health belief model in enhancing rural Malaysian women's breast cancer beliefs and screening behaviours. 130 women from randomly selected rural areas in the state of Kedah were interviewed face to face. Results showed a low level of knowledge on breast cancer, particularly on symptoms and risk factors of breast cancer and screening

techniques among the women. Only 12.3% of them have ever performed breast self examination (BSE) on a regular basis. Clinical breast exam (CBE) was performed by 23% of eligible participants. In women over the age of 40 years (n=78), only 5.1% reported ever having at least one mammography. There were significant correlations among knowledge, belief and practice ( $p<0.05$ ). Women's belief was the mediator variable of correlation between knowledge and practices. Multiple Linear Regression analysis showed that high perceived benefits of BSE, confidence to do BSE and knowledge on breast cancer screening significantly predicted increase in BSE performance ( $p<0.05$ ). Higher education level and lower seriousness of perception about breast cancer were significant predictors for increase in CBE performance. There was no association between age, marital status, households' income, work status, frequency of visit with a physician, family history of breast cancer with BCS behaviors ( $p>0.05$ ). This study implies the need for improving knowledge on benefits of breast cancer screening behaviors with appropriate strategies for prevention of breast cancer in Malaysia. In addition, this information could be used to plan breast cancer prevention educational programs for the rural community.

### **O-132 ENCOURAGING AND SUPPORTING COMMUNITY WOMEN TO ACCESS CERVICAL SCREENING**

S. Angus

Health Department

Cancer of the cervix is the second leading cause of death and burden of illness disproportion for Australia's (Indigenous) Aboriginal and Torres Strait Islander women. In Australia's geographical State Queensland, the Aboriginal mortality rate is 13.3 times higher than Australia's non-Indigenous community and in the Torres Strait Islander community the morbidity rate is 21.5 times higher. Evidence confirms limited participation of Indigenous women in screening, treatment, compliance and follow-up care. As a strategic wholistic commitment, Australia's Indigenous Health Workers, key community women and key partners are continuously encouraged and supported by an Aboriginal Senior Project Officer who is guided by a State-wide Steering Committee to expand the community's human social capacity. By recruiting female Indigenous Health Workers, some of whom are Pap smear providers' participation has increased. Involving these key practitioners, various innovative community-specific culturally effective, culturally safe health promotion material resources, including the first nationally accredited Community Education Screening Kit and complementary practical Tool Box have been designed to support and encourage women to participate in all phases of the screening pathway. Indigenous Health Workers recruited in the designated Women's Health positions are financially supported to complete a twelve month Certificate IV in Primary Health and Community Care providing health promotion and clinical curriculum to confirm and enhance the Health Workers' screening knowledge and skill. The Health Workers then apply flexible frameworks to provide health promoting education sessions to community women, living and working in urban, rural and remote (or traditional) isolated Australian communities further improving participation in screening.

### **O-133 RISK OF COLORECTAL CANCER AND EARLY DETECTION PRACTICE IN A SAMPLE OF PEOPLE IN IZMIR, TURKEY**

F. Ogce, D. Sari, F. Okcin, G. Mermer, E. Ceber, G. Ozenturk

Ege University Ataturk School of Health

Introduction and objectives: Incidence of colorectal cancer ranks seventh in both sexes, with about 5 thousand new cases occurring every year in Turkey. Higher intake of total energy, red/processed meats and alcohol as well as physical inactivity are all associated with increased risk of colorectal cancer. These factors may strongly modify for cancer prevention. Nonetheless, early detection of precancerous lesions and rapid, effective treatment of early colorectal tumors with regular screening appear to be key points of prevention strategies. The aim of the study was to find out of colorectal cancer risk, with men and women, who 50 years of age or over, who resided in Izmir, Turkey. Methods: During 2007–2009, we conducted a cross-sectional study of colorectal cancer among people in Izmir County and successfully interviewed 2497 subjects. Detailed information on dietary habits and other lifestyle factors as well as family history of colorectal cancer was collected. In addition the colorectal risk of participants was calculated by the Harvard University Colorectal Risk Assessment 8.41 years and 4.7% had  $\pm$  Tool. Results: The mean age of participants was 60.36 a family history of cancer. It was determined that 22.7% of respondents have a below average risk, 12.3% of respondents have an average risk and 65% of them have an above average risk according to risk assessment. Conclusions: Lack of health awareness and lack of cancer knowledge are the most commonly reported barriers to undergoing screening. We suggest that continued efforts are needed to educate adults for screening options.

### **O-134 THE ROLE OF MAMMOGRAPHY AND FINE NEEDLE ASPIRATION CYTOLOGY FOR THE DIFFERENTIAL DIAGNOSIS OF BREAST CANCER IN YOUNG WOMEN**

A. Hakobyan

Armenian-American Wellness Center

Brief outline of the article: Increasing diagnostic accuracy for breast cancer in women less than 35 years of age. Introduction: Breast cancer is one of the most widespread malignant tumors among women in Armenia. It is uncommon for women under the age of 35, accounting for 5-7% of reported cases. Delay in diagnosis is attributable to a clinically low index of suspicion, difficulty in examining dense and nodular breasts in younger women. Objective: Breast cancer incidence depends on age, more frequently occurring after the age of 45. According to ACS guidelines, baseline mammography should be done from 35 until 40 years of age. Currently, breast cancer is also a serious problem for women under 35. Thus, the objective of our investigation is to process of observation techniques for women up to 35 years. Methods: Retrospective analysis of the examination results of 125 women less than 35 years of age. Results: All cases were examined by BU. 112 of the 125 patients were observed by mammography. 76 of the 125 patients underwent ultrasound-guided FNA with cytological examination. Conclusion: Our results indicate that if women find an abnormality, she should seek a specialist's help, first undergoing BU. If the BU shows suspicious lesions, further investigation by mammography and FNA should be done. This step-by-step approach helps us to increase diagnostic accuracy among women up to age 35, to differentiate between benign and malignant processes and to determine the appropriate treatment and follow-up, if indicated.  $\alpha$

### **O-135 PREVALENCE OF HELICOBACTER PYLORI AMONG STOMACH CANCER PATIENTS AND**

## **ESTIMATE OTHER RISK FACTORS FOR STOMACH CANCER IN GEORGIA**

N. Mebonia\*, N. Chakvetadze\*\*

\*Tbilisi State Medical University

\*\*National Center for disease control and public Health

According to WHO, 55% of stomach cancer cases are attributable to *Helicobacter pylori* worldwide. In Georgia, incidence of stomach cancer is at the third place after breast and lung cancer. Goal of this study was to identify prevalence of *Helicobacter pylori* among stomach cancer patients and risk-factors associated with stomach cancer among the patients with or without *Helicobacter pylori* infection. Endoscopy was conducted and blood samples were collected from all patients admitted with gastro-enteric symptoms in four hospitals of Tbilisi in 2007-2008. Hospitals were selected based on availability of the endoscopy. Patients were interviewed using structured questionnaire. Serological testing by ELISA was conducted for identification of *Helicobacter pylori*. Odds ratio was calculated to estimate risk-factors. Out of total 504 patients enrolled in the study. 13 % of the patients had stomach cancer, 37% - ulcer, 17% - gastritis and 33 % had none of above listed condition. 49 % among stomach cancer patients were tested positive for *Helicobacter pylori*, 19 % had indefinite results. Among those with *Helicobacter pylori* infection, having a stomach cancer was associated with smoking (odds ratio=5). Among those without *Helicobacter pylori* infection smoking was associated with having cancer (odds ratio=1.6). Prevalence of *Helicobacter pylori* among patients with stomach cancer is not high compared to other developing countries. Having *Helicobacter pylori* infection increases negative effect of smoking on stomach cancer.

## **Miscellaneous**

### **O-136 THE ROLE OF CANCER INFORMATION SERVICES IN CANCER CONTROL**

M. Preszly

German Cancer Research Center

Throughout the world, there is growing interest in people taking more responsibility and involvement in their own health and having information that will enable them to maintain a healthy lifestyle, manage disease, and achieve quality of life during illness. The International Alliance of Patient Organizations stated that "accurate, relevant and comprehensive information for patients and their caregivers to help them make informed decisions" is essential. Cancer Information Services (CIS) provide this information free of charge via telephone, e-mail, Internet and media. CIS programs are important components in cancer control. They disseminate information and learn about users' needs and gaps in prevention, treatment, and care. This information contributes to health care policies, national cancer plans, and public health action. The International Cancer Information Service Group (ICISG) is a network that promotes collaborations and quality service, assists organizations to develop a CIS, and is a forum for exchange of best practice. ICISG has 70 member organizations in 45 countries, including the Asian Pacific area with 23 members in 12 countries, and Europe with 27 CIS programs in 25 countries. In 2009, the German CIS surveyed the cancer information and communication needs of Europeans and how CISs meet these needs. Results (from more than 250,000 inquiries answered in 2008) show the need for trustworthy, evidence-based, personalized information. ICISG developed an action plan to improve cancer knowledge for the public, cancer patients and their families - it is adaptable to other regions of the world, and ICISG can provide technical assistance.

### **O-137 ANTITUMOR ACTIVITY OF RHEUM RIBES AND THYMUS SYRIACUS IN MALE ALBINO MICE**

B. Mohammed\*, K. Karem\*\*

\*university of Duhok

\*\*University of Salahadden

To search for possible chemo preventive agents from natural resources, the aqueous extracts of *Rheum ribes* (Rhubarb) and *Thymus syriacus* (Thyme) with the concentrations 1% , 5%, and 5%,7.5% respectively were used via drinking water for 25 weeks to test its inhibitory role on skin tumors of male Swiss albino mice initiated with applied 7,12-dimethylbenz(a)anthracene (DMBA) on the dorsal skin ,mice were promoted by twice weekly application of benzoyl peroxide for 25 weeks . At the end of the experiment the animals were sacrificed and sections of skin were histologically studied. The result revealed that both plant extracts showed significant reduction in the number of mouse with tumors (incidence) and the number of tumors per mouse (multiplicity ) induced by DMBA . Histological investigations indicated that rhubarb extract reduced squamous papillomas and stimulated hair follicle proliferation .Thyme extracts also reduced squamous papillomas .these result suggest that rhubarb root and thyme leaves extract might be valuable as chemo preventive agent for chemical carcinogenesis.

### **O-138 PROFILE OF MICROSATELLITE INSTABILITY IN SPORADIC COLORECTAL CANCER: TUMOR VERSUS POLYP**

M. Montazer Haghighi, A. Irani Shemirani, S. Milanizadeh, S. Fatemi, S. Mohebbi, F. Jabbarian, M. Zali

Research Center for Gastroenterology and Liver Diseases, Taleghani Hospital, Shaheed Beheshti Medical University, Tehran, Iran.

Colorectal cancer (CRC) is the second leading cause of cancer related deaths in the world. Moreover, CRC incidence is dramatically increasing in Iran. Microsatellite instability (MSI), instability of short tandem repeats, is regarded as reflecting defective DNA mismatch repair (MMR). MSI can occur in tumors of many organs, but it is mainly the hallmark of colorectal cancer. The purpose of this study was to compare MSI status in sporadic colorectal tumors and colorectal polyps. Using a pentaplex (NR27, NR24, NR21, Bat25 and Bat26) polymerase chain reaction assay, MSI status was determined prospectively for 30 patients with carcinoma and 30 polyps. Our finding showed that 5 (5/30=16.6%) of colorectal carcinomas were MSI-Low (just one marker is instable) while 4 (4/30=13.3%) polyps revealed MSI including 3 MSI-Low in addition one MSI-high (more than one marker is stable). In conclusion, although more microsatellite instability was determined in carcinomas nevertheless, there is no significant different between MSI tumors and polyps status. It seems that microsatellite instability is raised in primary stage of colorectal cancer. Thereby, microsatellite instability could be use as a biomarker to determine susceptibility individuals with polyp turning to carcinoma.

### **O-139 BREAST CANCER RESEARCH IN IRAN; ESSENTIAL DATA TO ORGANIZE THE RESEARCHES**

A. Kaviani, F. Ghadiri, N. Iranpour, Z. Shad-Loo

Tehran University of Medical Sciences

Background: Considering breast cancer as one of the most burdensome diseases, besides our lack of knowledge in this field, it is required to strategize research policies by identifying defects of a research system in each country. Methods: In this descriptive study, Pubmed searches were performed to find the articles published on the title of breast "cancer", "tumor", "malignancy" and "Iran" to date. Results: Based on the available evidence the majority of articles have focused on molecular science (21%) and genetics (19%), while remaining are in categories like quality of life (9%), screening protocols (8%), epidemiology (7%), risk factor studies (6%), pathology (6%), patient knowledge and behavior (5%) and other field e.g. clinical researches (19%). The most used methodologies are cross-sectional (39%) and case-control (25%). The other articles are designed in formats such as experimental (8%), cohort (6%), case-report (6%), review article (4%) and others methodologies (12%). Conclusion: Despite increasing the body of the literature since 2000, still there is limited knowledge in some important categories with stronger evidence in the breast cancer research field in Iran which calls for extra efforts to reassess the research system policies and budgeting standards.

### **O-140 ORBITAL GRANULOCYTIC SARCOMA AS EXTRAMEDULLARY LEUKEMIA (EML) ASSOCIATED WITH ACUTE MYELOCYTIC LEUKEMIA (AML) IN TURKISH CHILDREN**

A. Cavdar\*, N. Tacyildiz\*\*, E. Unal\*\*, G. Yavuz\*\*, S. Gozdasoglu\*\*, E. Babacan\*\*

\*Cancer Group of Turkish Academy of Sciences (TUBA) and xx Department of Pediatric Oncology, Medical School of Ankara University

\*\*Department of Pediatric Oncology, Medical School of Ankara University

Orbital Granulocytic Sarcoma (OGS) associated with AML as an extramedullary leukemia (EML) is an uncommon findings in the Western world. However, 27% of Turkish Children with AML showed orbital tumor in our previous series and classified as "high risk" subgroup of AML (Acta Hemat. 1989). Etiology of EML as OGS still remains obscure. In order to clarify underlying mechanism, we have performed certain studies on eleven cases of AML with OGS. Cytogenetic Immunophenotypic analyses and tissue adhesion molecules (CD44, CD56, CD11) with some cytokins in serum (IL-2, IL-2R and TNF- $\alpha$ ) multidrug resistance (MDR) by p-gp expression were also determined. Results: The mean age was 6.8 yrs with a sex ratio (M/F) of 0.7. OGS was a presenting sign, associated with exophthalmos, chemosis and orbital masses in this series. Analysis of "Hematological" findings didn't show any difference between the AML cases with and without OGS (EML). FAB-M4 type AML predominated in the OGS associated group. Immunophenotyping analysis revealed presence of "stem cells" markers: CD-34 and HL-DRA more frequently (50%, 90%) in OGS group than control AML. Cytogenetic study revealed the common presence of t(8:21). (q22; q22) in OGS group. In addition, double Ph chromosome, t(1:11) (p36; q23) karyotypic abnormality have been observed in only OGS (+) AML group. MDR expression, Serum Cytokins (TNF- $\alpha$  and IL-2R) levels and tissue adhesion molecules (CD44, CD56) were commonly positive in OGS (+) group. These findings represent a biologically different subtype of AML associated with OGS in Turkish Children.

## **Advocacy**

### **O-141 DO WE NEED TO MAXIMISE THE BREAST CANCER SCREENING AWARENESS?: AN ENDOGMOUS SOCIETY WITH HIGH FERTILITY**

A. Bener\*, H. El-Ayoubi\*\*, B. Basha\*\*\*, S. Joseph\*\*\*, L. Chouchane\*\*\*

\*Dept. of Medical Statistics & Epidemiology, Hamad Medical Corporation, Hamad General Hospital, Qatar

\*\*Dept. of Medical Education, Weill Cornell Medical College, Qatar; Dept. of Oncology & Hematology, Al Amal Hospital, Hamad Medical Corporation, Qatar

\*\*\*Dept. of Medical Education, Weill Cornell Medical College, Qatar

Aim: The aim of this study was to explore knowledge, attitude and practice about breast cancer and to identify potential barriers to screening procedures among women. Design: This is a cross sectional survey. Setting: Primary Health Care Centers, Qatar. Subjects : A sample of 1200 Qatari women aged between 30 to 55 years of age were surveyed during the period from December 2008 to April 2009. 1002 subjects (83.5%) expressed their consent. Results: 70.3% of the studied Qatari women agreed that breast cancer is the most common cancer in women. A good proportion of Qatari women knew that nipple retraction (81.2%) and discharge of blood (74.6%) are warning signs of breast cancer. Of the studied Qatari women, 24.9% identified breast self examination, 23.3% with clinical breast examination and 22.5% with mammography as a method for detection of breast cancer. The frequently reported barriers among the Qatari women was that women did not ask any doctor/nurse how to perform breast self examination (57.3%), embarrassment for the screening of CBE (53.3%) and fear of mammography results (54.9%) thinking it is positive. Logistic regression analysis showed that family history, level of education, living in urban area and had medical check up when healthy were significant predictors for CBE and mammography. The screening rates of BSE, CBE and mammography were low in women for early detection of cancer.

### **O-142 A STUDY ON KNOWLEDGE AND AWARENESS ABOUT CANCER AND ITS PREVENTION, RIYADH, SAUDI ARABIA.**

K. Ravichandran\*, G. Mohamed\*\*, N. Al Hamdan\*\*\*

\*King Faisal Specialist Hospital & Research Center

\*\*Liverpool School of Tropical Medicine

\*\*\*King Fahad Medical City

**Introduction:** This study examines the knowledge on cancer among Saudis to address health education issues. Subjects and Methods: Saudi nationals, aged 15 years or more, attending to one of the randomly selected Primary Health Care (PHC) Unit or private hospital in Riyadh were interviewed for this study. Chi square test and multiple logistic regression analysis were done. Results: Total study population consisted of 1407 individuals aged 15-87 years with a male to female ratio of 1:1.04. The mean age of respondent was 38.5 (S.D. 14.4) years. The total knowledge score, maximum of 24, was computed by adding the score on knowledge of cancer, risk factor and screening. The total mean knowledge score was 14.3 (S.D. 3.6) with a range of 2-23. Statistically significant difference in the total knowledge level across age groups ( $p < 0.01$ ), educational levels ( $p < 0.01$ ) and marital status ( $p = 0.01$ ) was observed. Females ( $p = 0.04$ ), knowing anyone with cancer ( $p = 0.03$ ) and having undergone any of the (breast self examination, mammography, occult blood, PAP smear) test ( $p < 0.01$ ) are associated with high level knowledge. Regression analysis indicated that the odds of having high level knowledge about cancer was 78% lower among those who undergone any of the above mentioned test compared to those who had no test (95%CI: 0.07-0.66,  $p = 0.01$ ). Those who heard about any cancer warning signal were more knowledgeable (OR=0.43; 95%CI: 0.24-0.76;  $p = 0.004$ ) than who have not heard anything. Conclusion: This survey provided baseline information's on community level knowledge that are necessary for guidance towards better cancer awareness programme in this region.

#### **O-143 THE USE OF THE INTERNET IN CANCER MANAGEMENT IN THE INDIAN CONTEXT**

S. Maudgal, A. Bapat

Cancer Patients Aid Association

Cancer Patients Aid Association (CPAA) is a 40 year old NGO working towards the "Total Management of Cancer" as a disease including: -Raising awareness through lectures -Early detection through screening -Covering the cost of treatment through insurance -Providing total care for cancer patients -Rehabilitating cancer patients and family members CPAA was among the first NGOs to launch a website, cancer.org.in as early as 1999. The aim was to meet a recognised need for information and a non-threatening platform where patients and healthy individuals alike could ask questions. The website has reached out to over 10,000 regular readers who are sent updates on our activities. Every year over 100,000 unique visitors, make 136,000 visits, 2,500,000 hits to read 300,000 pages. Over 3000 emails are received from 35 countries and remote corners of 21 out of 25 Indian states. Last year we received queries seeking Financial Help (20.5%); Volunteering opportunities (15.9%); Second Opinions (13.9%); Anti Gutka (Smokeless tobacco) Sticker (12.6%); Offer to make donations in kind (8.9%); Organising awareness Camps (7.9%); Information on different kinds of cancer (7.3%); Sponsorships (4.2%); Information on BSE (3.4%); Cancer Insurance Policy (3%); Blood Donation (1.4%) and CPAA's Breast prosthesis (1%). We raised over Rs. 10 million through online donations. The success of the website proves that the initial apprehension that uneducated Indians, living in remote villages would not benefit was unfounded. Readers from all over the world demonstrated that the cancer experience is universal and which can be borne better by sharing experiences.

#### **O-144 FACTORS ASSOCIATED WITH BREAST SELF-EXAMINATION AMONG MALAYSIAN WOMEN TEACHERS**

P. Parsa\*, M. Kandiah\*\*, H. Abdul Rahman\*\*, N. Afiah Zulkefli\*\*

\*Hamadan University of Medical Sciences

\*\*Faculty of Medicine and Health Sciences, University Putra Malaysia

**Introduction:** Breast cancer is the leading cancer among Malaysian women. However, participants' rate in breast cancer screening is low in Malaysian women. The purpose of this study was to examine health beliefs factors related to breast self examination (BSE) among female teachers in Selangor, Malaysia. Methods: A cross-sectional study was conducted among 425 female teachers in 24 randomly selected schools in Selangor, Malaysia. A self-administered, validated questionnaire was used. Data were analyzed using SPSS version 14. Results: The mean age was 37.17±7.16 years. Only 19% of the women performed BSE on a regular basis. The mean scores of perceived benefits, health motivation and confidence were noticeably higher in performers whereas perceived barriers were less in BSE performers. Higher knowledge on breast cancer, greater confidence in performing BSE and regular visit with a physician were significant predictors for doing BSE ( $p < 0.05$ ). No relationship was found between BSE practice and factors such as age, marital status, education, ethnicity, family history of breast cancer and health insurance coverage. Conclusion: Low rate of BSE behavior was a concern to this sample of Malaysian women. Women who had more confidence in their ability to perform BSE, had regular visit with a physician and were informed about breast cancer were more likely to practice BSE. These findings suggest a need for improving awareness of breast cancer screening methods, their importance and practice.

#### **O-145 THE JORDAN EXPERIENCE – ENGAGING PEOPLE: CREATING CHANGE**

S. Jaouni

Jordan Breast Cancer Program

The Jordan Experience – Engaging People: Creating Change The Jordan Breast Cancer Program puts forth its model of public engagement in taking breast cancer from a taboo subject to a clarion call for action. The Middle East has witnessed many projects in health promotion; most have not had the impact envisaged on behavior or service provision. JBCP adopts a new approach: building on existing networks to maximize reach while mobilizing grassroots and advocating strongly with government. JBCP was established to alleviate the burden of breast cancer, which inflicts women at the peak of their productivity (median age: 45). Until recently, Jordan struggled with late detection of breast cancer (70% of cases). JBCP's needs analysis highlighted lack of screening services and guidelines, non-existent quality control, deficiency in trained health providers and low understanding of the importance of early detection. JBCP set a strategy to address these challenges and orchestrate the work of all stakeholders. After ONLY two years, statistics show a tangible shift in the bulk of cases to early stages. JBCP relies on a multi-stakeholder approach mobilizing MoH healthcare centers, building on NGO networks, engaging international donors and private sector to develop screening services and raise awareness while institutionalizing policy. It is unprecedented for a non-for-profit program to infiltrate and mobilize government while getting WHO, USAID and competing CBOs, government institutions and academia to work together towards one goal. JBCP presents this approach as a model, believing that with a multiplicity of players, it is the best way forward for tackling the plight of breast cancer.

#### **O-146 KNOWLEDGE AND ATTITUDE ON CERVICAL CANCER PREVENTION IN HUSBANDS**

**B. Norsa'Adah\*, N. Ilyana\*\***

\*Unit of Biostatistics & Research Methodology, School of Medical Sciences, Universiti Sains Malaysia, Kota Bharu 16150 Kelantan, Malaysia.

\*\*Faculty of Information Technology & Quantitative Sciences, Universiti Teknologi Mara, 40450 Shah Alam, Selangor, Malaysia.

Background: The utilization of Pap smear in Malaysia was still low compared to developed countries. Previous study showed that husbands had major roles in women's decision in taking the test. This study was conducted to determine the level of knowledge and attitude on cervical cancer prevention in husbands. Methods: A cross-sectional study was conducted in Hospital Universiti Sains Malaysia among Family Health Clinic attendees. We included married and excluded illiterate men. Self-administered questionnaires in Malay language was used. Multiple logistic regression was used for analyses. Results: A total 148 respondents were interviewed. The mean (SD) age was 41.2 (8.3) years with 85.8% Malay ethnic, 77.7% had high school or higher education and 74.3% in middle socio-economic status. Majority 95.9% ever heard about cervical cancer and 60.8% knew Pap smear. Only 31.1% agreed that cervical cancer is preventable by vaccination, 33.8-50% correctly answered questions about risk factors, 39.2-41.9% about symptoms and 33.1-44.6% about Pap smear. Exactly 71.6% objected male doctor performing Pap smear, 26.4% did not consented wives to have the test, 42.6% agreed that Pap smear causing embarrassment and 26.4% causing pain. The percentage of satisfactory knowledge and attitude was 44.6% and 45.9% respectively. Factors associated with knowledge were ethnicity and number of children. Factors associated with poor attitude were education level and having only one partner. Conclusions: Level of knowledge and attitude among husbands were not satisfactory and need improvement. Awareness campaign of cervical cancer and its preventive measure should be conducted among husbands as well as women.

#### **O-147 CIVIL SOCIETY AND CANCER CONTROL PROGRAMS IN ASIA**

**S. Nagavajara**

American Cancer Society

In many countries in Asia, cancer patient groups are often small and lack capacity to advocate for their needs due to limited resources, lack of information, organizational development and management skills. The American Cancer Society Asia Regional Cancer Control Program (ACS ARCCP) is a 3-year initiative designed to improve access to and utilization of cancer control services in Asia by promoting a civil-society based information and advocacy movement. ACS ARCCP aims to add to evidence current analyses of national cancer contexts and civil society best practices, build capacity of civil society to develop and manage effective cancer control programs and foster civil society networks that promote expansion of cancer control initiatives and legislation. ARCCP activities are being implemented in five countries: Malaysia, Singapore, Thailand, the Philippines and Taiwan. The activities include cancer control assessments, regional and local capacity building training and regional networks for cancer NGOs/patient groups, and technical assistance and program building through seed grants. 2010 is the final year of ARCCP and the presenter will be speaking about the progress, expected outcomes, and lessons-learned from this program.

#### **O-148 WHY MALAYSIAN WOMEN PRESENT WITH ADVANCED BREAST CANCER: A QUALITATIVE ENQUIRY**

**N. Taib, C. Yip, W. Low**

University Malaya Medical Centre

Introduction: Advanced presentation of cancer has a negative impact on survival. Understanding this phenomenon give opportunity for interventional strategies. This study explores why women present with advanced breast cancer. Method: Purposive sampling of 19 breast cancer patients presenting with delayed treatment and/or advanced cancer diagnosed within two years at the University Malaya Medical Centre, Kuala Lumpur, participated. In-depth interviews were conducted using a self-devised interview guideline. The audio-recordings were transcribed verbatim and NVivo 8 qualitative software was utilised for data management and analysis. Results: Major themes that emerged were the importance of evaluation of threat, fatalism, fear of surgery and chemotherapy were featured prominently. A background of low breast health literacy was found with many discovering large breast lumps and seeking treatment quickly. In women who knowingly delay diagnosis and treatment, maladapted coping mechanisms like denial and avoidance contributed to the phenomenon. Importance of significant others in decision making and adoption of treatment was seen. Lack of individualistic and autonomous decision making, with women playing the role of a dutiful wife and daughter was observed. Belief in alternative therapy as an active form of treatment and a more acceptable option of treatment was discovered. Conclusions: Education must target family members and significant others. Increasing breast health literacy in the community in symptoms recognition and subsequent actions are warranted.

#### **O-149 THE ASSESSMENT KNOWLEDGE, ATTITUDE AND BEHAVIOR OF WOMEN IN IRAN TOWARD BREAST CANCER SCREENING METHODS 2009**

**Z. Karimian, N. Mehran, E. Jafarbeglo**

Qom university

Introduction: Breast cancer is the most common cancer among women and screening of this cancer is one of the best method for early diagnosis. Due to this study was not performed in Qom, this research is necessary. Our aim was to determine the knowledge, attitude and behavior of women in Qom toward breast cancer screening methods 2009. Materials & Methods: This study was a descriptive – analytic. The samples consisted of 400 women, they were selected using convenient sampling method and exclusion criteria were history of breast cancer in women and their family. Data were gathered by a questionnaire and were analyzed by SPSS software. Results: The mean of age in this women was 30.25 years, and the most of them were hoomy, married and diploma education. Their knowledge regarding the screening methods were moderate (61/9%), The attitudes regarding the implementation of screening methods were favorable (98%), BSE was not performed in 248 cases of upper than 20 years (64/9%), 311 cases (81/4%) had never referred for a CBE and 33 cases of upper than 40 years (78/5%) of them had no history of mammography. Conclusions:



Our results indicate a moderate level of knowledge about screening methods and a positive attitude towards them. However, most of the women do not practice screening methods. That indicates attention to screening method is necessary.

### **O-150 HEALTH LITERACY IN PRE-OPERATIVE DIGESTIVE CANCER PATIENTS WHO UTILIZED THEIR HEALTH LITERACY, STARTING FROM INITIAL DETECTION OF SYMPTOMS TO CANCER DIAGNOSIS.**

K. Nakagami\*, K. Akashi\*\*

\*YOKKAICHI NURSING AND MEDICAL CARE UNIVERSITY.

\*\*NAGOYA CITY UNIVERSITY, SCHOOL OF NURSING.

**Purpose:** The purpose of this report is to convey the results of a study conducted to investigate the constitution and process by which digestive cancer patients utilized their health literacy awareness, starting from initial detection of symptoms to cancer diagnosis.

**Method:** Participant observation and semi-structured interview data from 10 pre-operative digestive cancer patients were analyzed using the grounded theory approach. **Result:** Core category is "self-examination." Results indicated that digestive cancer patients noticed the symptoms and guessed the cause of disease by managing the prior medical experiential knowledge, and new medical information they collected. The patients were diagnosed with cancer after they consulted with the doctor for digestive system-related conditions or follow-up without further consultation. However, patients with no symptoms were diagnosed with digestive tract cancer after they had access to a family doctor or had a regular medical examination. **Conclusion:** Pre-operative digestive cancer patients examined themselves based on prior medical experiential knowledge, new medical information, and opinions of other people from initial onset of symptoms. These observations explained the need for patients to be able to obtain new medical information. The observations suggested that providing appropriate medical information was essential for health literacy in pre-operative digestive cancer patients. Furthermore, patients predicted the cause of symptoms and then decided to consult a doctor. Therefore, recognizing the symptoms might be the trigger for preoperative digestive patients to seek and use new medical information, prior medical experience and knowledge. Digestive cancer patients' health literacy might be initiated by symptoms.

### **O-151 HOW TO STRENGTHEN THE COMMUNITY FOR CANCER CONTROL? BREAST CANCER SCREENING AWARENESS PROGRAM**

A. Bener

Weill Cornell Medical college & Hamad Medical Corporation

**Introduction:** Breast cancer appears to be a major global health problem of both the developing and developed countries. In western and Arab countries, breast cancer is the most commonly diagnosed cancer in women. **Aim:** The aim of this study was to explore knowledge, attitude and practice about breast cancer and to identify potential barriers to screening procedures among women for preventive measures. **Subjects and Methods:** This study based on the primary health care centers and Women's hospital was conducted among Qatari women aged 30–55 years from December 2008 to April 2009. A multistage sampling design was used and a representative sample of 1200 Qatari women aged between 30 to 55 years of age were surveyed. Among them, 1002 subjects (83.5%) expressed their consent to participate in this study. **Results:** The study findings revealed that despite of having a sufficient level of knowledge about breast cancer, a low breast cancer screening was confirmed in Qatari women; 24.9% with breast self examination, 23.3% with clinical breast examination and 22.5% with mammography. Qatari women were not very keen in practicing screening procedures especially the older Qatari women. Qatari women with higher education had better knowledge about breast cancer and a significant difference was noted in every knowledge response between the less educated and more educated women. A good proportion of Qatari women knew that nipple retraction (81.2%) and discharge of blood (74.6%) are warning signs of breast cancer. Their attitude towards having mammogram test was mostly negative for being afraid (63.5%) and embarrassed (49.4%). Also fear and worries were the general potential barriers towards breast cancer screening (46.5%). **Conclusion:** The present study revealed that the screening rates of BSE, CBE and mammography were low in Qatari women for early detection of cancer. Fear and worries were the general potential barriers towards breast cancer screening. The study emphasizes the fact that women should be knowledgeable about the high cancer risks involved for not having screening methods for early detection of breast cancer. If the community is not aware about risk factors of breast cancer, they cannot change their life style risk factors and decrease modifiable risk factors and actively prevent breast cancer. Minimizing barriers to screening behaviours may be effective in convincing women for early detection of breast cancer.

### **O-152 COMMUNITY BREAST HEALTH EDUCATION**

R. De Souza

Prashanti Cancer Care Mission

**Introduction and Objectives** Breast Cancer is a leading cancer in Urban India. Aggressive with early age onset and short disease free interval, it has changed trends to affect women across all socio economic barriers. Our undertaking in Cancer Control is through preventive programs to facilitate change in health behavior through information. Information is knowledge about the disease, diagnosis and treatment and to train women on Breast Self Examination. **Methods** Strategies included targeting organizations, clubs, institutions and condominiums. Women oriented, culturally appropriate breast health information was presented through audio-visuals in multilingual mode. **Factors affecting implementation of awareness** Interviews with organizational stakeholders showed that disease stigma, lack of health initiatives and time constraints are barriers towards acceptance of such program. **Results** Major indicators Need for practical health seeking skills (HSS): Knowledge alone cannot sustain programs. HSS mean a) Practical skills to reach facilities. b) Self help group of savings towards screening. c) Creating data of appropriate screening facilities. d) Maintaining personal and family history records. e) Practical Nutrition. Need for accessible service and infrastructure To enable Health centers through training Volunteer, health workers, ANMs, TBAs and women leaders in disease management. Need for economically viable and reliable diagnostic tools. Use of mobile breast ultrasound as a screening tool and revival of thermograph as a Standard of Care in breast cancer. **Gender, Male involvement and Wellness** Including men as beneficiaries in a predominantly male conservative society. **Conclusion** Our Outreach Services proposes to increase the scope of preventive programs by addressing the above issues.

### **O-153 CERVICAL CANCER AWARENESS IN KENYA**

**A. Maina**

**THE PINK RIBBON INITIATIVE**

**BACKGROUND:** CERVICAL CANCER AWARENESS CAMPAIGN TAKEN TO KIAMBU DISTRICT, CENTRAL PROVINCE, KENYA. THE PINK RIBBON INITIATIVE IN COLLABORATION WITH THE AGA KHAN UNIVERSITY HOSPITAL, NAIROBI. THE ACTIVITY WAS HELD AT AGA KHAN UNIVERSITY HOSPITAL CENTER- KIAMBU GROUNDS ON 26TH OCT. 2009. **METHOD:** Announcements were made through the media 2 weeks prior to the event date. Women were encouraged to attend in large numbers as there were educative sessions and the pap smear tests would be offered at a subsidized costs. The doctor gave talks on cervical cancer, its causes, mode of screening and about the available preventive vaccines in Kenya. I gave my testimony as a cervical cancer survivor to demystify the myths and the misconceptions. Questions from the participants were taken by the doctor. These educative sessions started at 10:00am and ended at 5:00pm. Pap smear tests were offered at a subsidized cost. Pamphlets with cervical cancer information were given to participants. **RESULTS:** 1014 women attended the sessions and the results are listed. 867 women took the Pap smear test. 114 were to come back the following day due to a shortage in testing kits. 33 could not afford the costs of the pap smear. **SUMMARY OF THE ABSTRACT:** Consistent cervical cancer campaigns, screening and HPV education needed in Kenya. With subsidized or free screening programs in place, many women would get tested thus helping in early detection and better prognosis. A lot of myths and misconception surrounding cervical cancer would be demystified with more awareness. **REFEREES** DR EDWARD SANG, GYNAE/ONCOLOGIST, THE AGA KHAN UNIVERSITY HOSPITAL, NAIROBI, Cell phone: +254723114160 Email: edkipsang@yahoo.com PATRIC.R.ABELE, B. sc. (NBI)

**O-154 SUPPORT GROUP FOR PALESTINIAN WOMEN LIVING WITH CANCER**

**C. El Jabari**

Patient's Friends Society-Jerusalem

Established in 2000 by a non profit organization, the only support group for women newly diagnosed and /or living with cancer works hard to overcome many barriers- social, political, economic and psychological. Starting with a handful of survivors the group has grown and expanded to include women with different types of cancer and from all socio-economic and geographic backgrounds. Professionally facilitated but peer led, this group of women have become empowered through information, capacity building and a solid sisterhood. Women in the group are support givers visiting women in their homes, hospitals and taking phone calls. They are also educators and advocates. Training and professional support have been essential to the vibrancy and sustainability of this project despite the many difficulties in reaching women, either from political, economic or numerous other factors.

**O-155 ACCESS TO CANCER TREATMENT: A QUALITATIVE STUDY IN SIX ASIAN COUNTRIES**

**A. Reeler, M. Bizé, J. Saba**

Axios International

**Introduction** A qualitative field study on access to cancer therapy was carried out in China, India, Indonesia, Malaysia, Philippines and Thailand to inform the design of future access program strategies for these countries. **Methods** The study targeted key opinion leaders such as oncologists, urologists and surgeons in tertiary care facilities (public and private) as well as other stakeholders such as cancer foundations, governments, medical oncology societies, pharmacists and social workers. The study used a mixed methodology of individual interviews and focus group discussions. It took place between November 2007 and June 2008. **Results** In all countries KOLs confirmed that cancer therapy was expensive and inaccessible for most people. KOLs in five out of six countries stated that there was no access to cancer diagnosis or treatment in rural areas. In Malaysia access to treatment is limited to the essential drugs, which does not contain cancer drugs. KOLs in Philippines and Thailand stated that clinical trials were the sole source of access to targeted therapy. However, KOLs in China, India and Thailand also mentioned that other types of cancer therapy access programs exist in their countries. Patients' approach to cancer care differed between the countries. **Conclusions** The study confirms that access to cancer targeted therapy in developing countries is unstructured and extremely limited, especially in rural areas. Cancer drugs are not on most governments' essential drugs lists and they are unaffordable for the majority of the populations. Special access programs are helping to improve access to treatment. More detailed results will be presented at the conference.

## Advocacy

### P-001 AWARENESS OF YEMENI MEDICAL STUDENTS ABOUT THE ROLE OF NUTRITION IN CANCER

K. Al-Alsakkaf (Presenter), H. Basaleem

Department of Community Medicine and Aden Cancer Center, Faculty of Medicine and Health Sciences, Aden, Yemen

**Introduction and objectives:** It was documented that dietary factors make a major contribution to the burden of cancer. This study aimed to identify awareness of medical students—Aden University/Yemen about the role of nutrition in cancer. **Methods:** A cross-sectional study was conducted on 573 medical students who completed anonymous self-administered questionnaires about the contribution of nutrition to cancer, relation of some cooking and presentation methods and relation of some food components, obesity and physical activity with cancer. **Results:** Quarter of the students realized that nutrition is responsible for 30-35% of cancer cases, that cooking meat at hot temperature is responsible for the formation of carcinogenic substances, and to the current recommendation of 5-9 servings of fruits and vegetables. One-third of students recognized the correlation between hot drinks and esophageal cancer, cooking starchy foods at high temperature and cancer whereas lower percentages knew that lycopene is the anticancer substance in tomatoes and red fruits and vegetables (16.7%). In all relations (except the relation of hot drinks and esophageal cancer), the highest percentage of correct answer was among first year students followed by the third year students, with significant differences between them ( $p < 0.05$ ). Two-thirds of students indicated the relation of dietary fibers to colon cancer. **Conclusion:** There is a clear gap in the knowledge and awareness of medical students regarding the contribution of nutrition to cancer burden. This gap should be narrowed to maximize their possible contribution in the activities of cancer control.

### P-002 COMPRITIVE KNOWLEDGE OF BREAST SELF EXAMINATION IN MIDWIFERY AND NURSING STUDENT ISLAMIC AZAD UNIVERSITY KARAJ BRANCH

P. Ashkvary, G. Babaei, M. Amiri, S. Khodaverdiyan

Islamic Azad university of iran

**Introduction:** breast cancer is the most common type of cancer among women world wide ranking second in mortality from cancer. Bse is a screening method that should be taught at an early age so as to educate women about the importance of early detection of breast cancer. **Aim:** the aim of this study was to evaluate the level of knowledge of midwifery and nursing student regarding breast self-examination. **Materials and methods:** this study is descriptive on 23 midwifery and 69 nursing student. data collection tool was a questionnaire the included 6 questions about demographic characteristics, and 14 question about knowledge breast self examination. **Data analyzed by descriptive statistics.** **Result:** our results show that the average age being (21-35), majority of them are single (%67/4) and (%29/3) twin. Our result showed no significant differences in midwifery and nursing knowledge. ( $p > 5\%$ ). Our result showed the students of midwifery and nursing have mild knowledge. **Conclusion:** it seems that despite of the importance of the bse in early diagnosis of breast cancer the majority of women have poor knowledge and practice about BSE. Based on the positive attitude of most women about BSE, it is that increasing the knowledge of women by education ways of breast cancer, especially BSE, this will be available by more attention of public health centers, TV and newspaper for increasing women awareness. **Key word:** breast, student, cancer, self examination

### P-003 ESOPHAGUS CANCER IN AZERBAIJAN OF IRAN

A. Adili

Emamhosein hospital, oncology department

**Esophagus cancer in Azerbaijan of Iran** **Introduction:** Azerbaijan has the second level of esophagus cancer in Iran. This research had down for determination of esophageal cancer etiologies. **Method:** This research had down in one of Azerbaijan clinics from year 2003 to 2006. In this study every patient with upper GI sign had down endoscopy and biopsy and after that different etiologies such as age, gender, alcohol consumption, smoking, opium asked. In this study we had 163 patient and data had analyzed with EPI 2000. **Result:** patients mean age was 59 year. Present of man and woman was equal. 82.9% was S.c.c and 16.4 Adenocarcinoma and .7% Insitu carcinoma. In this research we couldn't find any relation between smoking, alcohols and opium with esophagus cancer. **Conclusion:** Esophagus cancer is 2nd cancer in Azerbaijan. In this research we couldn't find any relation between smoking, alcohols and opium with esophagus cancer. We need a new research for detecting etiology of esophagus cancer in Azerbaijan.

### P-004 EVALUATION OF KNOWLEDGE LEVELS AND ATTITUDES OF STUDENTS IN NURSING DEPARTMENT OF CANKIRI KARATEKIN UNIVERSITY, RELATED TO SERVIKS CANCER AND HPV ( HUMAN PAPILLOMA VIRUS)

I. Tascioglu, G. Dogan Pekince

Cankiri Karatekin Universitesi Saglik Yuksekokulu/ Cankiri

**INTRODUCTION:** Serviks cancer is the second most commonly seen cancer type among women, after breast cancer. HPV infection is the most important risk factor for cervical ca. **AIM:** The aim of this study is to determine knowledge levels and attitudes about serviks ca and vaccinatoin method among students enrolled in third class at Department of Nursing in Cankiri Karatekin University **METHODS:** This is a cross sectional and descriptive study. Research population consists of the third year students from Department

of Nursing in School of Health, Cankiri Karatekin University. Data were obtained by applying a questionnaire form prepared by reviewing the related literature. In the analysis of data, descriptive statistics were used. RESULTS ; 89% of students had previously heard of cervical cancer. 76.4% expressed that they did not know the symptoms of cervical cancer. 70.9% of the students mentioned that they had heard the HPV virus before; 40% of students stated that they knew HPV vaccine; and 20% of those who stated that they knew HPV vaccination, emphasized that they did not have any idea about the vaccine dose. It was observed that all students who aware of the vaccine had not been vaccinated. Among them, 16.4% students pointed out the cost of the vaccine behind the reason for non-vaccination. CONCLUSION: Students' level of knowledge about HPV vaccines and Cervical Ca levels are insufficient. It is recommended that the subject should be considered in more detail in the courses about women health.

#### **P-005 INFORMATION NEEDS OF PATIENT WITH MENINGIOMA**

A. Tuna Malak\*, M. Bektas\*\*, A. Ozcan Ilce\*\*\*, G. Oyur Celik\*\*\*\*, A. Tuna\*\*\*\*\*

\*Canakkale Onsekiz Mart University School of Health Sciences

\*\*Dokuz Eylul University School of Nursing

\*\*\*Abant Izzet Baysal University School of Health Sciences

\*\*\*\*Ege University Ataturk School of Health Sciences

\*\*\*\*\*Ege University Sciences Institute

Meningiomas are now the most common tumours of the central nervous system. Generally patients want to take information about meningioma tumor, symptoms and management, psycho-social consulting. The aim of this descriptive, cross-sectional study was to determine information requirements of patients with typical meningioma after surgery. The study sample included a total of 20 patients who underwent surgery for brain tumours in neurosurgery clinics of an university hospital. Permission from all patients were taken and permission to conduct research taken from the hospital. Before the surgery, patients were given a booklet for training. Patients were followed up one, three, six month and one year later after surgery. The form consist of the socio-demographic questionnaire, patient symptom questionnaire and health status. All patients were asked to report by phone. All questions were recorded and answered. Descriptive data were analyzed using percentage and arithmetic average. Comparative statistics were evaluated using chi-square. We described data as diet, physical therapy and rehabilitation, quick thinking difficulties, fasting, headache, irritability, personality change, fatigue, driving, deep vein thrombosis... There was a significant difference between their health status and fear of seizures and recurrent tumor, forgetfulness, lack of concentration ( $p < 0.05$ ). Consequently, despite the health education of patients receiving the book had information needs. For this reason, nurses may give follow-up information in one year.

#### **P-006 MERSIN GOVERNORSHIP WOMEN'S HEALTH PROJECT-REPORT ON PARTICIPATING WOMEN WITH ABNORMAL BREAST EXAMINATION**

H. Gokce\*, G. Isbir\*\*, H. Aksoy\*\*\*, K. Catak\*, H. Gokdemir\*, D. Kaya\*, S. Toplar\*, S. Koc\*, A. Ata\*\*\*\*, S. Kilickap\*\*\*\*\*, H. Abali\*\*\*\*\*

\*Mersin Il Saglik Mudurlugu

\*\*Dokuz Eylul Universitesi Hemsirelik Yuksek Okulu

\*\*\*Mersin Valiligi

\*\*\*\*Mersin Universitesi Tibbi Onkoloji Ana Bilim Dalı

\*\*\*\*\*Sivas Cumhuriyet Universitesi Tibbi Onkoloji Bilim Dalı

\*\*\*\*\*Baskent Universitesi Tibbi Onkoloji Ana Bilim Dalı

Objective: Breast cancer (BC) is a significant health problem. We aimed to raise awareness on BC and its early detection through education and to screen by offering clinical breast examination. Materials/Methods: Pre-educated teams of physicians and nurses conducted audio-visual educational conferences on BC for women 15 years of age or older in their living neighbourhoods in the province of Mersin from May 2006 to December 2009. A video demonstrating breast-self examination was presented. A total of 454.946 women attended. Of those accepting clinical breast examination, 4790 had an abnormal breast examination and advised to see a general surgeon and to get mammography. In this analysis, 3793 out of 4790 are included. Results: Of them, 50.7% were between the ages of 40-59 and 60.6% were graduated from primary school, 24.1% were under 19 years of age during first pregnancy, 89.6% had breastfed, 27.2% had used oral contraceptives. Of all, 78.8% stated that they had learnt breast-self examination, but only 44.6% reported to do it on a regular basis monthly. However, 98.1% believe in the importance of breast-self examination. Additionally, 12.2% had a positive family history for BC and 66.9% had had no mammography screening until this project. No radiological studies were recommended by surgeons in 7.7% and 12.0% received ultrasound and 61.0% had mammography. According to mentioned diagnostic procedures 77 (2%) women were diagnosed to have BC. Conclusion: Raising awareness by education may increase early detection rate. To know the target population as much as possible may increase the success rate.

#### **P-007 THE INVESTIGATION OF KNOWLEDGE AND ATTITUDE RATE FIRST YEAR STUDENTS ABOUT ROLE FOOD AND ENVIRONMENT FACTORS IN THE PREVENTION OF CANCER IN 2009 SHIRAZ-IRAN**

A. Aazame Jokar- Zahra Rastegar- Zinat Mohebi

Iran- Shiraz University of Medical Sciences – Faculty of Nursing and Midwifery

Introduction: One of the key objectives of Healthy People 2010 is to reduce the number of new cancer cases and the death rates. Of the many diseases that affect people these days, cancer is among the most feared. But despite a wealth of scientific data, most people remain unaware of how they can reduce their risk of developing cancer. According to the National Cancer Institute, as much as 80 percent of all cancers are due to identified factors, and thus are potentially preventable. Thirty percent are due to tobacco use, and as much as 35 percent to 50 percent are due to foods. It is easy to control these and other risk factors. In this study (2009) we investigate knowledge and attitude rate in first year students Shiraz faculty nursing and midwifery about role food and environment factors in the appearance of cancer. Methods: we designed study descriptive- crosssectional. questionnaire prepared including 24 question about knowledge and 18 question attitudes about effective food and environment factors in the appearance of cancer. Questionnaire randomly distributed between 72 first year students Shiraz faculty nursing and midwifery that selected from four Filed. Finally, data extracted and analyzed by spss. Results: finding showed among 72 students, 32% midwifery students, 24/1% nursing, 30/1% operating room, 13/8% anesthesia technician and mean average were 18/5 years. In addition, finding showed

knowledge rate in students college about role of food and environment factors in the appearance of cancer was 66% and positive attitude 50/3%. Meanwhile, no were significant relationship between knowledge and attitude whith their filed ( $p>0/005$ ). But were significant relationship between knowledge and attitude whith their age ( $p<0/005$ ). In other word, the score average of knowledge and attitude questions indicated highly in operating room technician (394score) and the least score in anesthesia technician (180score). Conclusion: Today , role of food and environmental factors have been recognized to some extent in creating or prevention of cancer . Scientific evidence indicates that about a third of the nearly 600,000 cancer deaths in the United States in 2004 were related to nutrition, physical inactivity, and obesity or overweight and could therefore be prevented. Therefore, it is important to consider role of teaching especially for medical students, because they deal with health people .

#### **P-008 THE STUDY OF SOCIO-DEMOGRAPHIC CHARACTERISTICS AFFECTING BREAST CANCER HEALTH BELIEFS IN A SAMPLE OF TURKISH WOMEN**

A. Babacan Gumus\*, O. Cam\*\*, A. Tuna Malak\*

\*Canakkale Onsekiz Mart University, School of Health Sciences

\*\*Ege University , School of Nursing

Objective: The health beliefs and experiences of women related to preventive behavior must be understood within the cultural context. This study was conducted to study the socio-demographic characteristics affecting breast cancer health beliefs of Turkish women. Method: This research was conducted in an area covered by three neighborhood primary health care clinics in Bornova, Izmir. The data were collected from 382 women over 40 years of age who were selected using a stratified random sampling method. The data was collected by Descriptive Information Form and Breast Cancer Health Belief Model Scale (BCHBMS). Data was analyzed by t test, variance analysis and Duncan test. Results: The mean age of the women was  $51.26\pm9.17$ . It has been determined that there was a significant difference in BCHBMS total mean score of women according to age ( $F=15.284$ ,  $p=0.000$ ), family type ( $F=2.953$ ,  $p=0.033$ ), education level ( $F=13.743$ ,  $p=0.000$ ), perceived economic status ( $F=13.783$ ,  $p=0.000$ ), have a information about breast cancer ( $t=10.880$ ,  $p=0.000$ ), the status of carrying out Mammography ( $t=6.109$ ,  $p=0.000$ ), the status of carrying out Clinical Breast Examination ( $t=4.229$ ,  $p=0.000$ ), the status of carrying out Breast Self-Examination ( $t=10.840$ ,  $p=0.000$ ). Conclusion: These effective socio-demographic characteristics in breast cancer health beliefs of women should be considered in the design of breast health promotion and screening programs because they are likely to have a bearing on Turkish women's attitudes regarding the value they perceive of cancer screening.

#### **P-009 BREAST AND CERVIX CANCER AWARENESS LEVEL OF WORKING WOMEN AS MEDICAL PERSONNEL AND OTHER CIVIL SERVANTS**

A. Ture\*, D. Firat\*, H. Akman\*\*, B. Koc Kizildag\*\*, Y. Anil\*\*, M. Ozavci\*\*, G. Karabacak\*\*

\*Afyonkarahisar Medical Board

\*\*Afyonkarahisar State Hospital KETEM

Introduction and Objectives: This research is made as determining, to determine, breast and cervix cancer risk factors, early diagnosis and prevention method awareness of working women as medical personnel and other civil servants, and upon results, to plan education activities of Cancer Early Diagnosis Screening and Training Center (KETEM). Method: With the preparation of a 35 question survey after searching related literature about subject, this survey is filled after one to one interview with 100 female medical personnel working at Afyonkarahisar state hospital, 100 female civil servants working at municipality and revenue office. Collected data results are analyzed with SPSS 15.0 package software, percentage usage and chi square test. Result: It is found that the awareness level of working women as medical personnel in breast and cervix cancer, their proportion in knowing KETEM and attending trainings, is higher than the women working as other civil servants. But it is found that medical personnel's knowledge about breast and cervix cancer and their proportion in attending to KETEM training is less than expected. In both groups it is concluded that, the personnel attended to KETEM's education activities has a high awareness level. Conclusion: Because of the huge awareness level of two group, while planning educational activities about breast and cervix cancer, priority must be given to the civil servants excluding medical personnel. Besides, the necessary education of whole medical personnel should be continued actively by KETEM.

#### **P-010 THE COMPARISON OF KNOWLEDGE, ATTITUDE AND BEHAVIOR TOWARD BREAST CANCER SCREENING METHODS AMONG WOMEN SINGLE UPPER 30 YEARS AND MARRIED IN QOM 2009**

Z. Karimian, N. Mehran, E. Jafarbeglo

Qom university of medical science

Introduction: Breast cancer is the most common cancer among women and screening of this cancer is one of the best method for early diagnosis. Due to nulligravida or older primigravida are at high risk for breast cancer, Due to Our aim was to comparison of knowledge, Attitude and Behavior Toward Breast Cancer Screening Methods Among women virgin upper 30 years and married in Qom 2009. Materials & Methods: This study was a descriptive – analytic. The samples consisted of 125 women single and 125 women married, they were selected using convenient sampling method and exclusion criteria were history of breast cancer in women and their family. Data were gathered by a questionnaire and were analyzed by SPSS software. Results: The mean of age in this women was  $30/9\pm6/7$  years, and the most of them were hoomy and university education. Their knowledge regarding the screening methods were moderate (79%) in single and moderate (84%) in married group, The attitudes regarding the implementation of screening methods were favorable (98%) in two group, BSE was not performed in 94 cases of upper than 20 years (75%) in single group and 60 case (48%) in married group, 111 cases (88%) had never referred for a CBE in virgine group and 80 case (64%) in married group. 115 cases of upper than 40 years (98%) in single group and 123 case (92%) of married group had no history of mammography. Conclusions: due to in this study knowledge and participation of the single group about screening were lower than married groupe it s implies that this group should be paid attention in screening program.

#### **P-011 HAND IN HAND AGAINST CANCER: PATIENT SCHOOLS AND ADVOCACY**

N. Ozgul\*, M. Gultekin\*, Y. Pustu\*\*, E. Olcayto\*, M. Tuncer\*

\*The Ministry of Health of Turkey

\*\*New Hope in Health Foundation (SUVAK)

Objective: To organize and promote patient involvement in health care debates, to educate the patients professionally and to organize the works of NGOs in Turkey. Method: This is a prospective project founded by the Global Health Initiatives Programme, started at 2008. A comprehensive search of Turkish patient advocacy NGOs is performed. All these NGOs are called to meet and gather under a single roof. Necessary contacts are set with the ministerial authorities. Medical professionals and academics are invited for giving lectures to patients and their relatives such as "Meet The Expert Series", "What is cancer?", "Cancer Treatment modalities", "Pain Management" and "Nutrition and Cancer". Results: All of the 18 NGOs are combined under a single roof so called "Hand in Hand against Cancer". Legal consulting is initiated to convert the platform in to federation. Ministry of Health formally accepted the participation of a representative from the above mentioned platform into the National Cancer Advisory Board (NCAB) of Turkey. Training courses for cancer patients named "Patient Schools" were organized in 14 cities with the participation of 1582 patients. Quality of trainings is assessed by pre and post course evaluation sheets. Thousands of leaflets and small informative booklets were published for patients and their relatives. Conclusion: An organized advocacy programme is essential for the coordination of the patients and physicians and also for their better understanding of each other, particularly at scientific level. This initiative is very unique and a good example to all developing countries where non-medical techniques becomes more popular for treatment of cancer.

## **P-012 HOW TO SCREEN TEN MILLION WOMEN FOR BREAST & CERVICAL CANCER WITHIN TWO YEARS? A POLITICAL DETERMINATION**

N. Ozgul, M. Gultekin, E. Olcayto, M. Tuncer

The Ministry of Health of Turkey

Objective: WHO suggested cancer epidemic to be a major problem within developing countries in the near future. An efficacy analysis has also revealed high cancer incidence in 2030 in Turkey where a governmental policy is initiated to prevent this upcoming epidemic and to increase cancer awareness. Method: A multimodal public awareness policy has been started with the implementation of 280 cancer screening centers (KETEMs), 8 professional cancer registry centers, 17 comprehensive, 54 complex and 14 basic cancer treatment centers, 4 palliative centers and one national cancer institute. Each KETEM started to perform population based cancer screening and free of charge education. All the target population is invited and registered on a computerized data system. Strict laws and policies become operative against tobacco, infections, obesity & environmental carcinogens. National festivals will be performed with the contribution of famous singers, artists and sportsman. Media is encouraged to advertise the war against cancer with short movies, TV series and news. Furthermore, well-known stylists will perform fashion shows against cancer. Results: A cost analysis model showed efficacy of these activities to prevent cancer and to be used in other developing countries. About 20 % of the target population will be screened until the end of 2009 and %70 percent will be ended up to 2011. Conclusion: Public awareness is the most important issue for cancer prevention and screening. Developing countries should use the strategies of our model (budget, policies & networking etc.) for protecting themselves against the upcoming cancer epidemic.

## **P-013 EFFECT OF THE BREAST HEALTH PROGRAM BASED ON HEALTH BELIEF MODEL ON BREAST HEALTH PERCEPTION AND SCREENING BEHAVIOURS**

O. Asci, N. Sahin

Istanbul Universitesi

Breast cancer is the most common cancer in women. Awareness of Turkish women on the subjects of breast cancer and is inadequate. Moreover, health education programs on this issue is not desired levels in Turkey. Mothers of children with cancer spend majority of the time in hospital during treatment period. This time slice could be turned into an acquired opportunity with regard to education. This study is designed in one group pretest-posttest comparative experimental type. Purpose of this study is to determine the effects of BH program presented to mothers on their breast health perception and screening behaviours. Women who participated in the study were included into breast health program based on Health Belief Model (HBM). Personal advising was supplied using breast pattern, brochure and reminder bracelet in breast health program based on HBM. This program improves woman's perception of screening behaviours and their breast self examination (BSE) application; however, it doesn't affect them to use clinical breast examination (CBE) and mammography.

## **P-014 THE ROLE OF MIDWIVES ON WOMEN'S IMPROVING A PROTECTIVE BEHAVIOUR TOWARDS BREAST CANCER WHETHER THEY HAVE A FAMILY HISTORY OF CANCER OR NOT**

M. Demireloz, E. Ceber, G. Ozenturk

Ege University Izmir Ataturk School of Health, Department of Midwifery, 35100 Bornova/ Izmir, Turkey

Introduction: Genetic transmission is one of the most important factor which affect the incidence of breast cancer and, it's stated that the incidence of breast cancer increases twice for the women who have a cancer case in their first degree relatives, so firstly the women in high risk groups should be directed to the scanning programs. Purpose: The study is to determine the role of midwives in helping women improve behavior towards the protection against breast cancer whether they have a family history of cancer or not. Methods: The study is an interference work that was planned in order to evaluate the efficacy of education about the risk factors of breast cancer and primary and secondary prevention (early diagnosis) measures given to the women who were between 20-49 age years, literate, married and who had or did not have a cancer case in their families. The study was carried out between March 2006 and April 2007. Results: Although the women having a cancer case in their families are much more informed about the protection against cancer and early diagnosis in comparison with the women having no cancer case in their families, it has been observed that they do not participate in the practices of early diagnosis-scanning of breast cancer and they do not turn that information into attitude or behavior. Conclusion: The results of the study have shown that midwives have significant responsibilities for directing the women especially at risk towards protection against breast cancer and early diagnosis programs.

## **P-015 EDUCATIONAL ACTIVITIES OF ISTANBUL HEALTH DIRECTORATE ABOUT CANCER AND FIRST IMPRESSIONS FOR SELF-PERFORMED BREAST EXAMINATION**

D. Özcan, S. Sahin, H. Sen, N. Karakas

DEPARTMENT OF EDUCATION, ISTANBUL HEALTH DIRECTORATE

Introduction Cancer is currently one of the fatal disease. Periodic self performed breast examination (SPBE) is an important tool for early diagnosis of breast cancer. We have presented our data related to educational activities of Istanbul Health Directorate about cancer and SPBE and follow up examinations performed by health personels who have attended these educations. Materials: As the population of young women  $\geq 15$  years old is very high in Istanbul, it was planned to perform educations about cancer and practical in-service educations about SPBE and to enable detection of suspicious cases among women population in counties of Istanbul by health personel trained in these activities. Results: 181 health personels were given SPBE and cancer educator educations in 2005 and 2009 and these personels have performed inservice and public educations. Since 2006, 480.506 people were given public educations about SPBE. At the same time period, 4.276.519 students, 195.626 teachers and 4851 parents were given school educations about cancer. In 2008-2009, 7207 health personel were given in service and 42711 people were given public educations about cancer. Between January 2006 and October 2010, first and second examinations of 325.364 and 67210 women were performed, respectively. 4910 suspicious cases were detected. Conclusions It is likely that some regulations must be established in order to follow suspicious cases of breast cancer. In addition, performing certificate educations about cancer and increasing number of health personel who are experts about these topics will improve the quality of educations and arouse interest about these subjects.

## **P-016 COMPLETE MANAGEMENT OF CHILDHOOD CANCER FROM AWARENESS TO REHABILITATION**

S. Kadariva

Cancer Council Nepal

Background: As a matter of fact, cancer has been one of the major causes accounting high death toll rate in the world today. It is clear to us that childhood cancer treatment is expensive and it can't be succeeded over short span of time either. Each year a number of efforts have been made to check this global issue. As Nepal is in its initial stage of development, there are no good infrastructures for cancer treatment. It has been reported that annually around 500 children become victims of cancer and statistics still seems to be increasing while only 20% of them are found to have survived. Objectives: We need to increase success rate of childhood cancer in our country by creating awareness and educational programs in the remote areas of Nepal. We want to develop advocacy, counseling services and rehabilitation center for children. Methods: Different methods are used to prevent and control the childhood cancer in Nepal. There may be questionnaire methods, direct interview and counseling services to the patients and their families. We use cancer related public awareness, educational programs like workshops, seminar and training. Results: This program will give various ideas for childhood cancer awareness and research oriented data for childhood cancer for hospitals and communities people. Conclusions: In our national context, cancer can be managed and put to halt with joint efforts of the people as well as preliminary detection and prevention methods act as assistances. Besides, we can apply different techniques and methods about childhood cancer to go ahead in regard of counseling advocacy to the cancer patients, family members.

## **P-017 CURRENT LEVEL OF AWARENESS AGAINST CANCER IN TURKISH CITIZENS**

N. Özgül, M. Gültekin, E. Olcayto, M. Tuncer

The Ministry of Health of Turkey

Objective: To evaluate the level of awareness against cancer in Turkish population. Method: A total of 3096 people were randomly selected from different 24 cities to represent the whole population and a questionnaire was applied, involving 46 questions about different aspects of cancer and epidemiologic characteristics. Results: Median age was 37. 93% was accepting cancer as a lethal disease. A great majority was informed about cancer on TV programmes and only 17% was admitted to a medical professionalist for further information. 84% claimed smoking as the major cause of cancer. However, only 44% did show a reaction to cessate smoking to prevent cancer. Surprisingly, a great majority (50%) thought blood tests to be used for cancer diagnosis. A great majority was not aware of screening tests. And a majority (>80%) answered the questions regarding to cancer protective nutritions correctly. Conclusion: Current level of awareness seems to be in mid levels in Turkish citizens. Media has a high impact on their informations and therefore nutritional habits came out as a high priority subject. To inform the patients correctly and to increase the percentage of screened people, media awreness campaigns seems to be the best tool to work on in next years.

## **P-018 THE RESEARCH ON THE AWERENESS OF WOMEN BREAST CANCER**

H. Becerir\*, S. Gurdal\*\*, G. Saracoglu\*\*

\*KETEM

\*\*Namik Kemal University Medical Faculty ,Tekirdag,Turkiye

Introduction: The aim of this research is to identify the effects of the level of education and the awereness of breast cancer. The research shows that different opinions can be seen according to the women's different level of education and the awereness of self examining of breasts (SEB). Material and Methods : In this research carried out between April and December 2009, volunteer women who joined the Public Medical Education at Tekirdag KETEM and the women with no complaints related with breast illnesses who applied to the General Surgery Clinic at the Medical Faculty of Namik Kemal University participated in the study and 415 of whom answerd a questionnaire containing 22 questions. It is a descriptive research. Symptoms : The women who have university education say that: "Early breast cancer diagnosis can be said" This rate is meaningful. ( $p < 0.05$ ) The rates of the women who have heard of self examination of breasts (SEB) at the local health care center for the first time : Were of 15,3 % in the group of lycee or under lycee education and 7,6 %. In the group of university or higher education level . For the women who have university or higher education , the rate of self examinasson of breasts is meaningfully higher. ( $p < 0.05$ ). The women who have lycee or primary education can not see that they are in the risk group. Results: Some of the group who have lycee or below degree know (SEB) in Tekirdag and they also receive this information from the first step health institutions. It is concluded that with the public education given at KETEM risk groups are known and efforts to increase the awareness of importance of SEB fort he eary diagnosis of breast cancer ere meaningful. Summary: self examining of breasts, education, breast cancer .

## **P-019 BREAST SELF EXAMINATION" EDUCATION PROGRAMS (2001-2006)**

I. Dede, H. Ahisha, A. Tokmak

Department of the Ministry of Health Fight Against Cancer

**PURPOSE:** Breast cancer among women in our country in the first place to receive and can be diagnosed early. Early diagnosis of breast cancer within 15-49 years in women with periodical controls aimed to create awareness, women over age 50 also periodically checks and Mammography is drawn. Pilot project in 30 provinces starting to become widespread in the society; 1. To increase awareness about breast cancer, 2. Breast cancer is caught early stage breast cancer cases in the total percentage to increase 3. Point to women through screening programs to reduce deaths from breast cancer is aimed. **TARGET GROUP:** • Population of women 15-49 years and 50 years later. **PROCESS** Pilot implementation in the years 2001-2005 (30 provinces) 2005 dissemination (51 provinces) **APPLICATION:** Trainers and Field Personnel Training: Public Education: 15-20 years and 50 years .20 to 49 higher education between the application Observation and Tracking: The midwife / nurse checks. **RESULTS:** 1 TOUR - 30 City Number of Health Personnel Training given BSE: 10,672 Number of women 15-49 years of training given BSE: 1,583,717 Suspicious Case Number: 2259 2nd TOUR - 51 City Detection plug Evhalki Population (Age 15-49): 13,990,234 Number of Health Personnel Training has been given BSE: 39,815 Detection plug Evhalki Population (Age 50 +): 4,947,693 Number of women 15-49 years of training given: 5,302,042 Number of Women Age 50 given higher education: 982,970 Suspicious Case Number: 33,694 **RESULTS:** Early Diagnosis of Cancer in 81 provinces 225, Screening and Education Center was opened and 280 are planned to reach. • Early Cancer Diagnosis, Screening and Education Center was started in in the breast examination training. • Health organizations diagnosed with cancer in the early stages can be provided. • Scanning standards have been published. • NGO, EU and other international organizations were started by the Awareness projects

## **P-020 AWARENESS OF CANCER IN PEOPLE DEALING WITH HEALTH**

S. Third Grade Medical School Students

Dokuz Eylul University School of Medicine and Institute of Oncology, Izmir, TURKEY

(In alphabetical order); Ilkay Akbulut, Aydogan Akcan, Y. Cagri Akdemir, Manolya Aksoy, Adem Aktas,

Emin Bicen, Ramazan Denizli, Duygu Ege, Jehat Kizilkan, Behrim Malisi, Emine Mutlu,

Burak Oner, Hatice Oner, Hurrem Ozer, Ahmet Pinar, Duygu Sucu, Huseyin Ustun. Moderators: H. Ellidokuz, S. Aktas, A. Acikgoz, Y. Baskin.

Cancer is increasingly observed as a disease that is preventable. To promote the cancer prevention programs, data on level of knowledge among the population are needed. The purpose of this study is to determine awareness, attitudes and behaviors about cancer and its prevention of people dealing with health. In this cross sectional study, total of 1017 people among 6000 are involved to the interview in Health Campus of Dokuz Eylul University. Minimum sample size was calculated by using Epi Info version 6. The study was evaluated and approved by the research ethical committee. Third degree medical school students interviewed with study group for verbal informed consent using questionnaire. We randomly selected sample from each department and level. Data were analyzed by SPSS 11.0. Chi square was used at  $p < 0.05$ . A total of 1017 people (63.6% female 36.4% male) completed the questionnaire. The mean age of respondents was  $29 \pm 9$  years (17-63). The mean score of knowledge of cancer disease was  $63.8 \pm 19.6$  (0-100). 42.3% were students, 17.9% academic staff, 13.6% nurses, and 26.2% health workers. Smoking prevalence rate was 26.0% in our study group. Prevalence of smoking in health workers (28.4%) were higher than in student group (22.7%) ( $p = 0.038$ ). 33.1% had chronic disease. The presence of cancer disease in families is 44.1% in all groups. Exercise rate (minimum three times a week) is 35.9%. 51.3% recorded sufficient and balanced diet. The knowledge of risk factors for cancer disease was poor in this people dealing with health population. It is very important to increase awareness of cancer by education programs.

## **P-021 CREATING AWARENESS FOR THE EARLY DIAGNOSIS OF CERVIX CANCER**

N. Sogukpinar\*, B. K. Saydam\*, H. O. Can\*, A. Hadimli\*, O. D. Bozkurt\*, U. Yucel\*, Y. C. Kocak\*, Z. B. Akmese\*, D. Demir\*\*, E. Ceber\*, G. Ozenturk\*

\*Ege University Izmir Ataturk School of Health

\*\*Municipality of Bornova /IZMIR

This study is a defining field study made with the aim of creating awareness in all women between the ages of 15-49 of sectional type to cervix cancer about early diagnosis (n=4319) of women in breeding period living in Kizilay District, Bornova County having informed consent and 2036 of those having been reached have been taken in the scope of the study (The rate of participation %47.14). A survey form consisting of four parts related to determining method using situations about socioeconomic, obstetrics, genital hygiene and family planning of participants. Survey forms have been applied by visiting all women at their houses and talk to them face to face. Besides, during the data collecting process group trainings have been given to women in order to create awareness about cervix cancer. The comparison of data has been made by chi-square method. A statistical relevant relationship between the age of beginning sexual relation, number of partner and the condition of making vaginal douching and making smear in the last three years has not been determined. However, a statistical relevant relationship between the condition of any disease related to genital organ and the condition of postcoital bleeding and smear making in the last three years has been determined. In order to increase the participation of women reached to the study planned as a field study support can be received from local administrations, media and press, publishing institutions. Besides, it is essential to examine the making smear done behaviors of women studied and given training.

## **P-022 PREVENTION AND SCREENING MESSAGES IN TWO IRANIAN NATIONWIDE NEWSPAPERS**

M. Hamzelouiyen, F. Meybodi, H. Zamanian, M. Daryaafzoun, E. Enjedany, B. Babaei, S. Sadeghi

Psycho-oncology research group, University of Tehran, Tehran, Iran

**Introduction:** The newspapers are one of the most public sources of information about cancer prevention and detection for general public. Despite this fact, our knowledge about the coverage of these messages in such media is rudimentary. The aim of this study was to assess prevention, screening and risk factor messages presented in two famous Iranian newspapers during 2002-2009.

**METHOD:** A searchable version of these newspapers archive was used to identify cancer related issues by using "cancer" and some synonym words as keyword. The content of cancer related articles was assessed for risk factors, prevention and screening



messages. RESULTS: content analysis of 750 included articles revealed that 36% of articles contained risk factor messages, 32.8% contained prevention and 12.4% contained screening messages. Breast cancer was the most common cancer which was discussed about its Risk factors, prevention or screening. The messages about colon and skin cancer prevention and screening were a little n CONCLUSION: considering the fact that many of the cancer types are highly preventable, there is a need for promotion of prevention and screening messages presented to general public via newspapers. The prevalence and incidence of cancers in Iran should be considered with policy makers of each newspaper to write more articles for more incident and prevalent cancers. As well, policies and plans of ministry of health about screening and prevention programs, should better covered by newspapers, an important weakness which we encounter now!

## **P-023 HOPE AND SUPPORT IN CANCER RELATED ARTICLES OF TWO IRANIAN NATIONWIDE NEWSPAPERS**

F. Meybodi, M. Hamzelouivan, H. Zamanian, E. Enjedany, M. Daryaafzoun, S. Sadeghi, B. Babaei

Psycho-oncology research group, University of Tehran, Tehran, Iran

PERPOUSE: Public newspapers have a remarkable effect on opinions and feelings of patients and their families. Hope and support are important issues for cancer patients that could affect quality of life of patients and the outcomes of disease and treatments. The objective of this research is to describe what has been reported about hope and support of cancer patients in two most famous Iranian newspapers during 2002-2009. METHOD: searchable version of the newspapers archive was used to identify cancer related issues by using "cancer" and some synonym words as keyword. 750 Related articles which met our inclusion criteria were included. Reviewing these articles, data were coded for cancer type, hope & support and publication date among other variables. RESULTS: content analysis of 750 articles showed that 2.25 percent of the cancer related articles considered hope as the important point of the article. 72.7 percent of hope related articles published in 2008-2009. From included articles, 12.65 percent described support and most of these articles published in 2008-2009. Information support, emotional support and financial support respectively had most articles. CONCLUSION: An increasing trend in frequency of hope and support related articles has been observed. It seems although we can see more related articles in this era, but the total number these articles especially about hope in cancer patients, is very low and such messages should be considered more in new policies of these famous newspapers. Insufficient and Inaccurate media coverage may be contributing to public misunderstanding and disappointment about cancer.

## **Diagnostics**

## **P-024 ROLE OF THE FREE LIGHT CHAIN ASSAY IN RESPONSE ASSESSMENT FOR PLASMA CELL DISORDERS**

V. Radovic

Institute Hemofarm AD

Although free light chain (FLC) response can be considered in 3 contexts-oligosecretory diseases, light chain myeloma, and measurable intact immunoglobulin disease—routine serial use of this assay can only be recommended for the first indication. For serial measurements, either the involved FLC or the difference between the involved and uninvolved (dFLC) should be used. Aside from the time of diagnosis and in the context of documenting stringent complete response (CR), rFLC) is not useful because of the not infrequently( the  $\kappa/\lambda$  FLC ratio ( for observed treatment related immunosuppression of the uninvolved ( $\kappa$  patients) FLC during for monoclonal  $\kappa$  patients and  $\lambda$  monoclonal  $\lambda$  chemotherapy; the ratios generated when one of the FLC numbers is very low will be extreme, reflecting the degree of immunosuppression more than tumor burden. Serial FLC ascertainment should be routinely performed in patients with AL amyloidosis and multiple myeloma patients with oligosecretory disease. It should also be done in all patients who have achieved a CR to determine whether they have attained a stringent CR.

## **P-025 ANALYSIS OF IMMUNOGLOBULIN HEAVY CHAIN/LIGHT CHAIN (HLC) PAIRS**

V. Radovic

Institute Hemofarm AD

This novel immunoassay panel (Hevylite) is a panel of immunoassays using polyclonal antibodies targeted at the unique junctional epitopes between the heavy chain and light chain constant regions of intact immunoglobulins. The immunoassays can identify separately the different light chain types of each immunoglobulin class, i.e. IgAk, IgA $\lambda$ , IgGk, IgG $\lambda$ , IgMk and IgM $\lambda$ . These molecules are then measured in pairs, e.g. IgAk/IgA $\lambda$ , to produce ratios of involved immunoglobulin/uninvolved immunoglobulin concentrations, in the same manner as serum free light chain  $\kappa/\lambda$  ratios (Freelite). The first of the assays for measurement of IgAk/IgA $\lambda$  is released today. The introduction of Freelite has revolutionised the monitoring of patients with Multiple Myeloma and other B cell dyscrasias. Hevylite will further enhance the management of these patients.

## **P-026 TESTICULAR GERM CELL TUMORS AND INTRATUBULAR GERM CELL NEOPLASIA: HER-2/ NEU (C-ERB B2), BCL-2 AND P-53 IMMUNOHISTOCHEMICAL STAINING**

D. Proca

ohio state university

Introduction: The protooncogene c-erb-2 is a member of type I growth family factor, while bcl-2 is an oncogene that is regulator of programmed cell death. Amplification/ overexpression of these oncogenes has been reported in a variety of human cancers. Mutations in p-53 tumor suppressor gene are the most frequent genetic alteration reported in human cancers. We evaluated

immunohistochemical reactivity for Her-2/neu, bcl-2 and p53 in testicular germ cell tumors (GCT). Method: One pathologist reviewed H&E slides and immunohistochemical stains from 42 testicular GCT. Immunohistochemical stains were performed on one representative formalin-fixed paraffin section for every case; the blocks were chosen so that they included GCT, ITGCN and benign testis. Nuclear staining in at least 5% of cells was considered positive for p53 and Bcl-2, while complete membranous staining in at least 10% cells was considered positive for c-erb-2. Results: Nineteen cases (45%) were pure testicular seminomas, and 23 were mixed germ cell tumors, with or without a seminomatous component. All GCT, with and without seminomatous component, were immunoreactive with p53, including associated ITGCN, where present. Two (0.5%) nonseminomatous mixed GCT showed weak, focal membranous staining with antibodies against c-erb-2. All GCT and ITGCN were negative with bcl-2. Conclusion: Immunohistochemical examination of GCT and ITGCN for Her-2/neu, bcl-2 and p-53 is not helpful in differentiating seminomatous versus non-seminomatous GCT. Genetic alterations of tumor suppressor gene p-53 may play a role in the development of GCT, starting with the differentiation of the primordial germ cells to different types of tumors.

## **P-027 ROLE OF CYTOPATHOLOGY IN THE PRIMARY DIAGNOSIS AND TYPING OF SOFT TISSUE SARCOMAS. A CYTOMORPHOLOGICAL, IMMUNOLOGICAL AND MOLECULAR STUDY**

A. Fahmy, B. Elmorsi, N. Tahoun

Pathology Department, National Cancer Institute (NCI), Cairo University, Egypt

Cytomorphology is considered highly specific in the distinction between malignant and benign variants of soft tissue tumors yet, typing of such tumors remains difficult. Application of new techniques (immunocytochemistry, ploidy and molecular genetic analysis) to cytological aspirates has prompted a substantial reduction in the number of doubtful diagnoses and broadened the diagnostic spectrum. This study aimed at evaluating the diagnostic accuracy of cytopathology in primary diagnosis and typing of soft tissue sarcomas (STS) using immunocytochemical panel of markers (vimentin, desmin, cytokeratin, CD34 and S100) and RT-PCR for detection of chromosomal translocations in some soft tissue sarcomas. The results were correlated with results of open biopsy. Diagnostic accuracy of FNAB for STS was 97% compared to histopathology with two false positive cases considered to be of the common diagnostic pitfalls and regarding specific typing it was 58.2% (p=0.009). CD34 appeared to be the most sensitive (85.7%) and specific (100%) marker, while desmin was the least sensitive (56.3%). Desmin, S100 and cytokeratin showed lower specificity 93.3%, 77.7%, and 97%; respectively. RT-PCR was performed on types of STS known to have specific chromosomal translocations with reported positive bands in 11/15 cases of myxoliposarcoma, 4/8 cases of alveolar rhabdomyosarcoma and 3/4 cases of synovial sarcoma. It was concluded that both immunocytochemistry and RT-PCR increased the sensitivity of STS typing with no single antibody proved 100% sensitive and specific for typing of malignant mesenchymal tumors. So, it is recommended to use the panel in complementary with routine cytology especially in cytologically suspicious cases.

## **P-028 STUDY OF PLASMA SURVIVIN IN EGYPTIAN PATIENTS WITH HEPATOCELLULAR CARCINOMA ASSOCIATED WITH HEPATITIS C VIRAL INFECTION.**

H. Mohamed Ali EL-Attar, M. Kandil, Y. El-Kerm, M. El-Ghandour

Medical Research Institute Alexandria University

BACKGROUND and OBJECTIVE: Survivin, the antiapoptotic, is expressed in a variety of human neoplasms. The aim was evaluating the plasma level of Survivin and Alpha fetoprotein in patients with chronic hepatitis C viral infection (HCV) without and with hepatocellular carcinoma (HCC). SUBJECTS: 70 subjects were divided into: Control group (Group I) (20 healthy volunteers) and Patients groups: Group II: HCV group (20 patients) and Group III: HCC with HCV (30 patients). METHODS: Thorough physical examination, ultrasonography of the abdomen, laboratory investigations {liver profile, anti-HCV antibodies, hepatitis B surface antigen, Alpha fetoprotein (chemiluminometry) and Survivin (ELISA)} were performed. RESULTS: There was a significant increase in Survivin level in HCV patients (Group II) when compared to the control group (p = 0.039). There was a significant increase in alpha fetoprotein in (Group II) and (Group III) when compared to (Group I) (P = 0.000 for both). Also a significant increase when (Group III) was compared to (Group II) (P=0.000). The best generated cut off value for AFP was 10.85ng/ml and for Survivin 13.7pg/ml. Serum Survivin diagnostic sensitivity was 53.3 % diagnostic specificity 62.5 % and efficiency 58.57 %. While, Serum Alpha fetoprotein sensitivity was 100 %, specificity 92.5 % and efficiency 95.7 %. CONCLUSION: Serum Survivin showed a higher value in HCV group compared to controls and a lower diagnostic performance and proved to be less reliable as a tumor marker for HCC than did Alpha fetoprotein. Key word: survivin, apoptosis, HCC.

## **P-029 THE COMPARISON OF CLINICAL APPROACHES OF DOCTORS IN KIRIKKALE POSTGRADUATE HOSPITAL AND STATE HOSPITAL DURING LYMPHADENOPATHY EXAMINATION**

G. Kuyumcu, E. Demiral, N. Ucyildiz, H. Tonga

Kirikkale province, directorate of health

Introduction and Objectives Lymphadenopathy(LAP) is enlargement of lymph nodes, an important finding for early diagnosis, detection, treatment of metastatic, primary tumors. Our aim is to compare, detect clinical approaches of doctors in two different hospitals of Kirikkale for lymphadenopathy examination. Methods The study was carried out at January-February 2009 among 52 general practitioner, specialist from Kirikkale Postgraduate Hospital(KPH), State Hospital(KSH) who had filled questionnaire about the issue. It is cross-sectional study. Statistical analysis was applied by using chi-square in SPSS 10.0 program. Results While 65.2% of KSH wasn't applying LAP examination, 72.4% of KPH wasn't. While 80% of general practitioner, 64.7% of specialist from KSH weren't applying LAP examination, respectively, they weren't 85.7%, 68.2% accordingly for KPH. There wasn't difference for lymphadenopathy examination between doctors from KSH, KPH. Most of doctors from both hospitals don't apply LAP examination ( $\chi^2=0.31, p=0.57, OR=0.71, 95CI(0.19-2.72)$ ). Conclusions It was understood from our study that similar conditions exist in both hospitals, also doctors from both hospitals don't use LAP examination, very important for both early diagnosis, detection and treatment of cancer. When considering doctors put diagnosis by using sign, symptoms, laboratory findings, it is easily seen that physical examination isn't complete and probably due to this, less number of patients are referred to special treatment units as Cancer Early Diagnosis, Screening, Education Center (KETEM). Doctors should be taught importance of lymphatic drainage, LAP examination as very important first-step diagnostic tool while upgrading their current knowledge. According to the results obtained, doctors from both hospitals had been educated about "LAP examination"

### **P-030 K-RAS MUTATION DETECTION IN COLORECTAL CANCER USING THE REAL-TIME POLYMERASE CHAIN REACTION WITH MELTING CURVE ANALYSIS**

Y. Baskin\*, G. Calibas\*, N. Kayacik\*, S. Sarioglu\*\*, E. Canda\*\*\*, U. Yilmaz\*\*\*\*

\*Dokuz Eylul University, Institute of Oncology, Department of Basic Oncology

\*\*Dokuz Eylul University, Faculty of Medicine, Department of Pathology

\*\*\*Dokuz Eylul University, Faculty of Medicine, Department of Surgery

\*\*\*\*Dokuz Eylul University, Institute of Oncology, Department of Clinical Oncology

Mutations in the KRAS oncogene are frequently found in human cancers. The presence of these mutations correlates with a lack of response to certain EGFR inhibitor therapies. However, most mutation-detection techniques are generally unsuitable for routine use, especially due to their time-consuming, labor-intensive, and sensitive natures. The aim of our study was to establish the methods for rapid and sensitive detection of KRAS mutation status in formalin fixed paraffin embedded (FFPE) tissues DNA. We applied real-time polymerase chain reaction (PCR) with melting curve analysis (MCA) to detect somatic mutations in codon 12 and 13 of KRAS gene (optimized for the analysis of FFPE tissues). The detection of the mutations by DNA sequencing was done employing pyrosequencing following two methods Ogino and Poehlmann as a gold standard method. Both methods were used concurrently in the panel of DNA isolated from 11 colorectal FFPE tissues tumor. The positive or negative results from all 11 samples were identified by both methods independently. The KRAS mutations were presented in 3 of 11 patients (27%) by DNA sequencing and 4 of 11 patients (36%) by RT-PCR. In conclusion, the real time PCR analysis can be used for detection of somatic KRAS mutations in FFPE clinical samples. However, we also recognize that the sequencing analysis of approximately 200bp amplicons may be used for mutations status screening, but with care of method sensitivity.

### **P-031 REAL-TIME AND DYNAMIC MONITORING OF CELL PROLIFERATION AND VIABILITY FOR HEP-2 CELL LINES BY XCELLIGENCE SYSTEM**

Y. Baskin\*, G. Calibas\*, N. Kayacik\*, U. Yilmaz\*\*, M. Kinay\*\*\*

\*Dokuz Eylul University, Institute of Oncology, Department of Basic Oncology

\*\*Dokuz Eylul University, Institute of Oncology, Department of Clinical Oncology

\*\*\*Dokuz Eylul University, Institute of Oncology, Department of Radiation Oncology

Label-free detection emerges as a new approach in the development of technologies for cell-based screening assays. Unlike the classic detection methods that use fluorescence, radioisotope, luminescence, or light absorption, label-free detection directly measures the cell function without using a labeled molecule. The advantages of label-free detection include a simple homogeneous assay format, noninvasive measurement, less interference with normal cell function, kinetic measurement, and reduced time for assay development. Here, we have applied the electrical impedance detection method in a real-time cell electronic sensing (RT-CES) system for cell-based assays. The cell growth rate measured by this RT-CES system was comparable to actual cell number counted manually. In addition, cell proliferation, cytotoxicity, cytoprotection, cell growth inhibition, and apoptosis data generated by this RT-CES system correlated with those determined by the classic methods. The conclusion is that the RT-CES system is a useful tool for label-free detection of certain cell-based parameters.

### **P-032 IDENTIFICATION OF CT-PROXIMAL X-LINKED PUTATIVE TUMOR SUPPRESSOR GENES**

S. Yilmaz, A. Bulut, A. Gure

Department of Molecular Biology and Genetics, Bilkent University

Abnormal DNA hypermethylation at specific promoter sequences in various cancers can result in silencing of tumor suppressor genes (TSG). Tumor specific hypomethylation of specific sequences, on the other hand, are much less studied. Cancer/testis (CT) genes show restricted expression in germ cells in the testis and ovary, and in trophoblast cells, among normal tissues, but are frequently expressed in various cancers. Despite a clear association with promoter-specific demethylation, the specific mechanism by which these genes are expressed is currently unknown. We hypothesized that those epigenetic alterations ultimately leading to CT gene expression in cancer would occur simultaneously with hypermethylation of DNA, each affecting a specific region with clear boundaries. To define a minimal region within which these two events would occur, we decided to identify hypermethylated regions proximal to CT genes. We expected that CT-proximal TSGs downregulated in cancer would help define these boundaries. By utilizing various bioinformatic approaches, we identified 4 such putative TSGs. Expression of 2 of these (pTSG1 and pTSG2), were significantly down-regulated in a large panel of colon and lung cancer cell lines compared to normal colon and lung tissues, respectively, as tested by qRT-PCR. pTSG3 and pTSG4 were also down-regulated but in some cancer cell lines. We demonstrated that the promoter regions of these pTSGs were hypermethylated in correlation with their expression status by bisulphite sequencing. Ongoing studies include the further understanding of the tumor suppressive properties of these genes, and how their suppression relates to CT gene expression.

### **P-033 EVALUATION OF OUR FROZEN SECTION RESULTS**

I. Arikani, A. Barut, M. Harma, U. Bayar, S. Dogan

Zonguldak Karaelmas University Faculty of Medicine Department of Obstetrics and Gynecology

Frozen section is an important intraoperative diagnostic tool for ovarian tumors. The aim of this study was to compare the frozen section results with the definite histopathological results. The file records of 278 patients were retrospectively evaluated who were operated between January 2002–December 2008 with the diagnosis of ovarian mass and to whom frozen section was performed. The results of frozen sections were as 84.5% benign, 7.2% malign, 4.0% borderline and 4.3% will be evident at the paraffin section. The sensitivity was 97.0% for the benign tumors, 62.5% for the malign tumors and 70.0% for the borderline tumors. Frozen section has acceptable sensitivity and specificity. False positive and false negative rates are low. The major problems in the frozen section are positive surgical margins, difficulty of the evaluation of huge tumors and the poor experience of the pathologist in the field of gynecologic oncology.

### **P-034 CLINICAL AND PATHOLOGICAL CHARACTERISTICS OF BREAST CANCER PATIENTS WITH HISTORY OF TONSILLECTOMY**

M. Isik, S. Aksoy, D. Dede, O. Dizdar, Y. Ozisik, K. Altundag

Hacettepe University Institute of Oncology

Background: In the literature, clinical and pathological features of breast cancer with a history of tonsillectomy are different from the others. Methods: The aim of this study was to investigate clinical and pathological characteristics of breast cancer patients with a history of tonsillectomy. Nine hundred and eight five consecutive breast cancer patients presenting at Hacettepe University Institute of Oncology between years 2004 and 2009 were evaluated retrospectively. Past history of having surgery including tonsillectomy was asked to all patients and was recorded in our electronic data base. Results: Of all study population, 22 (2.2%) had a history of tonsillectomy. Median ages of breast cancer diagnosis in patients with and without tonsillectomy history were 56 and 48, respectively ( $p=0.061$ ). 27.3% of patients who had undergone tonsillectomy and 48.2% of patients without history of tonsillectomy were pre-menopausal at diagnosis ( $p=0.110$ ). There were no triple negative patients in the tonsillectomy group but the ratio in the other group was 15.8% ( $p=0.051$ ). The HER2/neu positivity was more in the tonsillectomy group (35.0% vs 20.8%,  $p=0.16$ ). Multivariate logistic regression analysis identified no statistically significant independent factors for higher frequency of HER2/neu positivity and no triple negativity in breast cancer patients with tonsillectomy. Conclusion: On the -contrary of the literature, the results of the present study indicate that breast cancer occurring in patients with a history of tonsillectomy were older at the time of diagnosis and diagnosed mostly at post-menopausal period.

### **P-035 CLINICAL AND PATHOLOGICAL CHARACTERISTICS OF BREAST CANCER PATIENTS WITH HISTORY OF CESAREAN DELIVERY**

I. Kalan, S. Aksoy, D. Dede, O. Dizdar, Y. Ozisik, K. Altundag

Hacettepe University Institute of Oncology

Background: Antiproliferative effect of the neurohypophyseal peptide oxytocin (OT) in breast cancer cells was previously described in the literature. Methods: The aim of this study was to investigate clinical and pathological characteristics of breast cancer patients with a history of cesarean delivery and the role of c-section on breast cancer prognosis. 985 consecutive breast cancer patients presenting at Hacettepe University Institute of Oncology between years 2004 and 2009 were evaluated retrospectively. Results: Of all study population, 90 (9.1%) had a history of at least one c-section delivery. Median ages of breast cancer diagnosis in patients with and without c-section history were 51.7 and 49.5, respectively ( $p=0.11$ ). 48.3% of patients who had undergone c-section and 47.7% of patients without history of c-section were pre-menopausal at diagnosis ( $p=0.53$ ). Multivariate logistic regression analysis identified c-section history (OR: 2.284, 95% CI: 1.089-4.790,  $p=0.029$ ) and estrogen receptor negativity (OR: 1.454, 95% CI: 0.978- 2.162,  $p=0.064$ ) as independent risk factors for lymphovascular invasion. Multivariate logistic regression analysis also showed that c-section history (OR: 1.454, 95% CI: 0.978-2.162,  $p=0.013$ ) is an independent risk factor for extracapsular extension. Conclusion: The results of the present study may indicate that breast cancer occurring in patients who had previously undergone c-section delivery have a particularly aggressive biological behavior leading a somewhat unfavorable prognosis.

### **P-036 BLOOD ABO GROUPS AND RISK OF BREAST CANCER**

D. Dede, S. Aksoy, O. Dizdar, I. Gullu, Y. Ozisik, K. Altundag

Hacettepe University Institute of Oncology

Background: ABO blood group has been previously found to be associated with the risk of gastrointestinal malignancies including gastric cancer and pancreas cancer (1, 2). However there is no data about the association of breast cancer with ABO blood groups. Methods: We aimed to investigate the relationship between ABO blood group and breast cancer risk by comparing the blood groups of breast cancer patients with healthy female donors in a cross-sectional model. Patients with breast cancer ( $n=565$ ) who were admitted to our clinic between 2004 and 2009 were retrospectively evaluated. The control group comprised healthy female blood-bank donors ( $n=1853$ ). Results: The frequency of distributions of ABO blood groups and Rh types were nearly identical among the patients and the controls. When the clinical and pathological characteristics of the patients with different blood groups were compared, again no significant difference was observed considering age at the time of diagnosis, menopausal state, disease stage, hormone receptor and Her2 expression, tumor size, lymph node involvement, lymphovascular/perineural invasion and tumor grade. Conclusion: There seems to be no association between ABO blood type and the risk of breast cancer or any specific clinical or pathological feature of breast cancer in our patient population.

### **P-037 THE DIAGNOSTIC AND PROGNOSTIC VALUES OF C-REACTIVE PROTEIN PROCALCITONIN, INTERLEUKIN-8 AND TUMOR NECROSIS FACTOR-ALPHA IN FEBRILE NEUTROPENIC PATIENTS**

N. Akgul Babacan\*, S. Cihan\*, D. Uncu\*, T. Kos\*, B. Civelek\*, H. Yildiz\*, N. Kandemir\*, T. Evrensel\*\*, N. Zengin\*, O. Manavoglu\*\*

\*ANKARA NUMUNE EDUCATION AND RESEARCH HOSPITAL

\*\*ULUDAG UNIVERSITY MEDICAL SCHOOL DEPARTMENT OF MEDICAL ONCOLOGY

Aim: Fever and neutropenia are the most common complications of modern aggressive anticancer chemotherapy. But sensitive and early parameters of inflammation are rare in neutropenic patients. C-reactive protein (CRP), procalcitonin (PCT), interleukin-8 (IL-8), tumor necrosis factor alpha (TNF- $\alpha$ ) are important parameters of inflammation. We aimed to investigate the diagnostic and prognostic value of these parameters in patients with neutropenia and fever in this study. Method: Twenty-six febrile neutropenic patients with cancer were included in the study. Their serum samples were obtained at 0, 2, 4, 6th days of admission to measure CRP, PCT, IL-8 and TNF- $\alpha$  levels. According to clinical properties; the cases were divided into two groups: Group-1 ( $n=21$ ) was consisted of patients without bacteremia, Group-2 ( $n=5$ ) was consisted of patients with bacteremia and sepsis. Although 34 cancer patients were admitted as a control group. The measurement of parameters were compared in three groups. Results: All parameters except PCT were found increased ( $p<0.05$ ) in febrile neutropenic episodes when compared with control group. Only IL-8 levels were found significantly increased ( $p=0.02$ ) in group with bacteremia. IL-8 had the highest AUC (areas under the receiver operative characteristic) value to

predict bacteremia, and it was the most sensitive (%100) and specific (%83.3) parameter to predict bacteremia. Conclusion: In identifying the patients with bacteremia and sepsis among febrile neutropenic cases IL-8 was found to be superior than PCT and TNF- $\alpha$ . In addition to this, we concluded that CRP was not a valuable parameter to identify the patients with bacteremia.

### **P-038 EXPRESSION OF HEAT SHOCK PROTEIN 90 $\alpha$ IN ACUTE LYMPHOBLASTIC LEUKEMIA**

E. Gonullu\*, A. Hacıhanefioglu\*, C. Ercin\*\*, M. Yavuz\*\*\*, O. Mehtap\*\*\*\*, H. Keski\*\*\*\*\*

\*Kocaeli University Hematology Department

\*\*Kocaeli University Pathology Department

\*\*\*Kocaeli University Public Health Department

\*\*\*\*Kocaeli University Hematology Department

Cancer is one of the leading causes of death in all age groups. Every year 1500 people die from acute lymphoblastic leukemia (ALL). The questions about the relationship between the acute lymphoblastic leukemia and etiologic factors remain unanswered. Heat shock protein 90 (HSP90) is one of the proteins in eukaryotes which amounts approximately 1% of soluble protein in cells in unstressful conditions. HSP90 acts like a molecular chaperone. Molecular chaperones provide protein homeostasis within cells. They guide the folding, disposition, and turnover of many regulators of the cell growth, differentiation, and survival of the cells. Recent data show that the chaperones have essential roles for malignant transformation during oncogenesis. The increased expression of one or more heat shock proteins is seen in many type of cancers, both solid tumors and hematologic malignancies but there is only a few study about ALL. In this study we aimed to investigate the influence of Hsp90 $\alpha$  on the pathogenesis and prognosis of acute lymphoblastic leukemia. In our experimental design we performed a case-control study. Hsp90 $\alpha$  expression was determined by immunohistochemistry method among the bone marrow biopsy specimens of patients with acute lymphoblastic leukemia and the control group. According to our results Hsp90 $\alpha$  expression was significantly higher in bone marrow biopsy specimens of patients with acute lymphoblastic leukemia than the control group. However, we did not find a statistical correlation between Hsp90 $\alpha$  expression and prognosis. In conclusion, we have been able to demonstrate that there is a relationship between the Hsp90 $\alpha$  expression and ALL. Although we did not find a statistical relationship between Hsp90 $\alpha$  expression and prognosis, our observations indicate that further investigation is needed about this object. Key Words: Cancer, Leukemia, Heat shock protein

### **P-039 P16INK4A OVEREXPRESSION: A USEFUL DIAGNOSTIC MARKER OF THE UTERINE CERVIX LESIONS**

N. Missaoui\*, A. Trabelsi\*\*, B. FontanièRe\*\*\*, R. Sankaranarayanan\*\*\*\*, M. Mokni\*\*, S. Korbi\*\*, S. Hmissa\*\*, L. Frappart\*\*\*\*\*

\*Research Unit 03/UR/08-13, Cancer Epidemiology and Cytopathology in Tunisian Center, Medicine Faculty, Sousse, Tunisia

\*\*Pathology Department, Farhat Hached University Hospital, Sousse 4000, Tunisia

\*\*\*Pathology Department, Léon Bérard Center, Lyon, France.

\*\*\*\*International Agency for Research on Cancer (IARC), Lyon, France

\*\*\*\*\*Pathology Department, Edouard Herriot Hospital, Lyon, France

Introduction and objectives: Cervix cancer is the most common cancer among women in most developing countries. However, there is a substantial lack of inter-observer diagnostic reproducibility for its precursor lesions (CIN1). In order to ameliorate the diagnosis of these lesions, we evaluate the utility of p16INK4A overexpression as a surrogate biomarker of precancerous lesions of the uterine cervix. Methods: A retrospective study was carried out on 158 uterine cervix specimens. Participants were recruited opportunistically from collaborative projects directed by the International Agency for Research on Cancer (IARC), Lyon, France. Immunohistochemistry was used to find p16INK4A expression. HPV infection was detected by PCR or HPV testing. Results: No p16INK4A expression was detected in normal and benign lesions of the uterine cervix. p16INK4A immunolabeling was focal in CIN1 and diffuse in CIN2 and CIN3. Strong and diffuse p16INK4A expression for p16INK4A was detected in CIN2 and CIN3, as well as those of invasive cancers. p16INK4A overexpression was associated to the CIN grade ( $p < 0.0001$ ) and the high-risk HPV infection ( $p < 0.0001$ ). Conclusions: p16INK4A overexpression should be regarded as a surrogate biomarker of precancerous lesions of the uterine cervix. p16INK4A overexpression is a useful in reducing the variability during evaluation of suspicious biopsies of the uterine cervix.

### **P-040 CLAVICLE TUMORS: MR FINDINGS**

E. Aktas, K. Arda, N. Ciledag, E. Torun

Ankara Oncology Education and Research Hospital, Radiology Department

Introduction The clavicle is a rare site for bone tumors. Clavicle tumors usually are malignant and the diagnosis may be delayed because of a low level of suspicion. We present of four patients radiologic examination results who admitted to our hospital pain and swelling in their clavicular region. Methods We obtained and report plain radiographs and MR images of the tumors of clavicle. Results: The patient 1. was 55 years old woman. MR imaging showed large sized mass which cause destruction of the distal clavicle cortex. Pathological features of the mass indicated plasmocytoma. The patient 2. was 17 year old male. We saw a mass which cause cortical destruction and was accompanied by soft tissue mass in the distal region of left clavicle intensite MRI. Pathologic examination revealed an eosinophilic granuloma. The patient 3. was 16 year old male. MR revealed a mass lesion which cause cortical expansion, and was hypointense on T1 weighted image, hyperintense T2 weighted image in distal region of the clavicle. Pathology was confirm the diagnosis as osteochondroma. The patient 4. was 50 years old male. There was a mass which cause pathologic fracture in distal region of the clavicle in MR imaging. Pathological features of the mass indicated metastasis of the adenocarcinoma. Discussion Tumors of the clavicle are uncommon and often present with a diagnostic problem. Anatomically, the medial third was the commonest site involved. MR imaging give the information about border of the mass and relations to adjacent structures, are necessary before surgical treatment.

### **P-041 PATTERN OF LYMPHADENOPATHY IN AL-GAMHOURIA TEACHING HOSPITAL**

G. Abdul Hamid\*, A. Kassem\*\*

\*University of Aden

\*\*Al-Gamhouria Teaching Hospital, Aden

Pattern of lymphadenopathy in Al-Gamhouria Teaching Hospital This study was undertaken for investigation of lymphadenopathy. The objective of this study is to elucidate the pattern of nodal pathology seen in Hematology-Oncology department of Al-Gamhouria Teaching Hospital, Aden, Yemen during the period from May 1st 2007 to April 30, 2008. Complete history, physical examination, CBC, BM aspiration and lymph node excision were done. Seventy seven adult patients with lymphadenopathy were included. The patients age ranged from 15-85 years with mean age of  $37.6 \pm 19.5$  years. The males were 54.5% and females were 45.5%, the mean size of lymph nodes  $\leq 3$  cm in 42.9% and  $> 3$  cm in 57.1% patients. Of these 77 patients, 64.9% were malignant diseases (Hodgkins lymphoma 20.8%, Acute lymphoblastic leukemia 16.9%, Acute myeloblastic leukemia 7.8% and nasopharyngeal carcinoma in 6.5%), 23.4% seen in infections (Tuberculosis in 14.3%, AIDS in 6.5% and Toxoplasmosis in 2.6% and 11.7% of cases were diagnosed as nonspecific reactive hyperplasia

#### **P-042 THE ACCURACY OF DETERMINING TUMOR GRADE AND MYOMETRIAL INVASION IN CASES OF ENDOMETRIAL CANCER USING FROZEN SECTIONS**

T. Turan\*, H. Keskin\*\*, E. Oguz\*, O. Demir\*\*\*, N. Boran\*, S. Ozer\*, G. Tulunay\*, M. Kose\*

\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital

\*\*Department of Gynecology and Obstetrics, Ankara Atatürk Teaching and Research Hospital

\*\*\*Pathology Division, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital

Introduction: In this study, the efficacy of analyzing Frozen/Section (F/S) to identify tumor grade and depth of myometrial invasion for patients with endometrial cancer was investigated. Methods: The medical data of 816 patients diagnosed with endometrial cancer and treated between 1993 and 2009 were analyzed. In F/S, following macroscopic examination of the resected specimens, 2-5 samples from the region of deepest myometrial invasion were frozen to  $-25^{\circ}\text{C}$ , cut into 8 $\mu\text{m}$  sections, then stained with hematoxylin-eosin. Results: Grade; the accuracy rates for the analysis of F/S were 96.8% for grade 1, 86% for grade 2, and 91.3% for grade 3. The accuracy rate for all of the patient samples analyzed regarding tumor grade was 89%, the overestimate rate was 2.8% and the underestimate rate was 8.2%. Myometrial invasion; the diagnostic accuracy rate was 78.5% for the patients with the tumor limited only in the endometrium, 90.5% for determining the depth of myometrial invasion to be  $<1/2$ , and 95.3% for identifying myometrial invasion  $\geq 1/2$ . For all cases, the diagnostic accuracy rate for determining the depth of invasion was 85.4%, the overestimate rate was 4.0% and the underestimate rate was 10.6%. Discussion: In this study, the diagnostic accuracy for determining tumor grade and extent of myometrial invasion from F/S of patient specimens was high. We conclude that tumor grade and extent of myometrial invasion in endometrial cancer can be determined with high accuracy using F/S.

#### **P-043 ROLE OF KLF6 TUMOR SUPPRESSOR GENE AS AN EARLY EVENT IN THE DEVELOPMENT OF COLORECTAL CARCINOMA**

A. Abdel Wahab\*, A. Kassem\*\*, S. Matter\*\*\*, A. Nour El Deen\*\*\*\*, A. Helmy\*\*

\*NCL, Cairo University

\*\*Kasr Alinin hospital, Cairo University

\*\*\*Nuclear Research Center, Atomic Energy Authority

\*\*\*\*Faculty of Science, Ain Shams University

Background and Aim: Egyptian colorectal cancer is not the common type of cancer but its unique characteristics in high proportion of early-onset lets us to understand the genetic alterations involved in colorectal cancer progression aiming to develop molecular biomarkers that can be used for early detection. Methods: We analyzed DNA isolated from 83 cases including 38 colorectal carcinomas, 23 polyps, and 22 inflammatory bowel diseases (IBD). Mutations at KLF6 tumor suppressor gene (exon 1 - 4) were examined by PCR-SSCP silver staining technique followed by direct sequencing. 10p15 LOH was analyzed using KLF6 M1, KLF6 M2 and KLF6 M4 markers by microsatellite assay. Results: KLF6 mutations were found in 45%, 27%, and 26% of colorectal carcinoma, ulcerative colitis and adenomatous polyp cases respectively. Most of mutations detected in KLF6 gene were located at exon 2. The majority of mutations found in KLF6 were missense mutation and their type and locations were different from previously detected in western populations. The frequencies of LOH at the three markers examined were 29%, 36%, and 52% for colorectal carcinomas, IBD, and polyp cases respectively. LOH was detected in mutant KLF6 as well as wild type. No significant association was found between genetic alterations examined with different clinicopathological factors. Conclusions: Our data highlights for the first time a role of KLF6 gene in the progression of Egyptian colorectal carcinogenesis. Detecting different mutational sites from that detected in western populations maybe is the characteristic of Egyptian colorectal carcinoma which due to environmental and genetical factors.

#### **P-044 ASSOCIATION BETWEEN COMPUTER TOMOGRAPHY AND STAGE BASED ON FIGO AMONG EPITHELIAL OVARIAN CANCER PATIENTS IN INDONESIA DURING THE PERIOD 2003-2009**

R. None\*, K. None\*\*, A. Adel\*, B. Dwipoyono\*\*, E. Suzanna\*\*

\*Cipto Mangunkusumo General Hospital

\*\*Dharmas National Cancer Hospital

Malignancy of the ovary is second rank gynecologic malignancy i.e. 20%. Introduction of preoperative extension is needed to predict success in tumor eradication is done. Tomography imaging is important to determine the precise tumor extension and eventually can be determined the relapse rate for ovarian malignancy associated with the next procedure. Thus, we want to compare between computer tomography imaging, histopathology and surgical report in staging determination based on FIGO classification. We used retrospective study by analyzing 21 patients from 207 patients with diagnosis of ovarian cancer treated in Dharmas National Cancer Hospital, Indonesia in 2003-2009. There is an association computer tomography with histopathology results and surgical reports in stage I/II (4.7%), and in stage III (57.1%). Consistency between the computer tomography characteristics, histopathology results and surgical reports to vesica urinaria infiltration, ascites, paraaorta lymph node, omentum and the surface of diaphragm infiltration were 90.4%, 85.7 %, 81%, and 76.2% respectively. The frequent Inconsistency between the computer tomography characteristics, histopathology results and surgical reports were fallopian tube infiltration (81%), necrosis (52.4%), and uterus infiltration (47.6%). The

discrepancy between computer tomography results with histopathology results was 38.1% where the most common in stage IIIC (50%). The value of CA 125 increased 90.4% from normal based. There was no association between staging and CA 125. There is an association between computer tomography, histopathology results and surgery report in ovarian cancer.

## Miscellenaous

### **P-045 ADULT DISSEMINATED CUTANEOUS LANGERHANS CELL HISTOCYTOSIS (LCH) WITH NAIL INVOLVEMENT IN A SUDANESE PATIENT,**

A. Bashir\*, A. Alhassan\*\*

\*KHARTOUM COLLAGUE OF MEDICAL SCIENCE

\*\*UNIVERSITY OF KHARTOUM

βAbstract: Disseminated cutaneous langerhans cell histocytosis (LCH), are group of rare histiocytic syndromes and idiopathic disorders characterized by the proliferation of specialized bone marrow–derived Langerhans cells (LCs) and mature eosinophils. We report an interesting case of adult skin and nail limited LCH occurred in a 26 year old man. We describe an undiagnosed and relapsing case of skin and nail limited LCH in a male patient, 26 years old, student, presented with erythematous greasy scales in the scalp and discrete, yellow brownish, scaly papules with areas of purpura mainly in face and trunk for 3 years duration, and then remains stable over time. The case is diagnosed and confirmed histopathologically, considered to be the first case been reported in Sudan.

### **P-046 HELICOBACTER PYLORI AND PEPTIC ULCER IN CIRRHOTIC PATIENTS**

M. Rahimkhani\*, H. Ghofrani\*\*, H. Khavari Daneshvar\*\*\*

\*faculty of allied of medical sciences, tehran university of medical sciences

\*\*gasteroentology department,imam hospital,tehran university of medical sciences

\*\*\*cancer research centre,imam hospital,tehran university of medical sciences

Contex: H.pylori infection increases the risk of peptic ulcer in cirrhotic patients. The role of H.pylori in inducing peptic ulcer disease in chronic liver disease patients remains controversial. Methods and Materials: Sixty cirrhotic patients were enrolled in the study. Peptic ulcer was detected in patients by means endoscope. Sera from patients were tested for Helicobacter pylori antibodies by a commercial ELISA kit Statistical analysis: t student and fisher test used for statistical analysis. Results: Active peptic ulcer was detected in nine cirrhotic patients. Of the nine patients with peptic ulcer 8(88.9%) tested positive for Helicobacter pylori antibodies and of the remaining 51 patients, 31(60.8%) tested positive for Helicobacter pylori antibodies. Conclusion: Helicobacter pylori infections in our series of cirrhotic patients with peptic ulcer seems to show the same pattern at that described in cirrhotic patients without peptic ulcer.(P=0.078) the suggestion that the etiology of the peptic ulcer in cirrhotic patients could be related to Helicobacter pylori infection was not confirmed by our study.

### **P-047 PALLIATIVE CARE FOR CANCER PATIENTS: AN INTERDISCIPLINARY APPROACH**

S. Ozkan

istanbul university

Palliative care is increasingly recognized as an important component of quality care for cancer patients. Given an estimated 1,437,180 new patients diagnosed with cancer in the USA in 2008 similarly in Turkey and approximately 565,650 cancer-related deaths, care for those patients who are near the end of life is an essential aspect of cancer care. Palliative care is an interdisciplinary team approach to care, with a focus on comfort and quality of life rather than prolongation of life or "cure" for a patient and their loved ones. Depending on the palliative care issue, many various treatments approaches may be available to manage symptoms and complications of advanced cancer. Common palliative care problems include pain, cachexia, asthenia, and wound issues. Examples of frequent concerns that necessitate an interdisciplinary team approach include pain, dyspnea, and malignant bowel obstruction. It is imperative to consider invasive or minimally invasive approaches in addition to noninvasive approaches for each of these problems. Each of these issues may mandate the expertise of specialists beyond the palliative care practitioner or medical oncologist, including surgeons, interventional radiologists, gastroenterologists, radiation oncologists, or anesthesiologists.

### **P-048 INVESTIGATION OF RELATIONSHIP BETWEEN THE PSYCHOSOCIAL ADJUSTMENT AND HOPELESSNESS IN THE WOMEN WITH BREAST CANCER**

A. Babacan Gumus\*, O. Cam\*\*

\*Canakkale Onsekiz Mart University, School of Health Sciences, Canakkale

\*\*Ege University, School of Nursing, Izmir

Objective: Physical, psychological and social variables influences psychosocial adjustment of the women with breast cancer. The study was designed to analyze the relationship between the psychosocial adjustment and hopelessness in the women with breast cancer. Method: The study was conducted in Ege University School of Medicine Department of Radiation Oncology Nurse Counsellor Unit and Tulay Aktas Oncology Hospital Outpatient Chemotherapy Unit. The sample of the study was composed of 90 women with breast cancer. The data was collected by Introductory Information Form and Psychosocial Adjustment to the Illness Scale - Self-Report (PAIS–SR) and Beck Hopelessness Scale (BHS). The data were analyzed by pearson correlation analysis. Results: The mean age of the women was 49.35±10.99. It was found out that level of psychosocial adjustment of 13.3% of the women was "good", level of psychosocial adjustment of 23.3% of them was "fair" and level of psychosocial adjustment of 63.3% of them was "poor". A

positive relationship was determined between PAIS–SR mean score and BHS mean score of the women with breast cancer ( $r = 0.731$ ,  $p = 0.000$ ). Conclusion: It was seen that as the level of hopelessness of the women increases, the psychosocial adjustment decreases. It was concluded that taking into consideration the significance of this relationship, the attempts to increase hope and therefore support psychosocial adjustment would be vital in terms of increasing life quality of the women with breast cancer.

#### **P-049 IN PATIENTS WITH BREAST CANCER BEFORE AND AFTER RADIOTHERAPY: FATIGUE ANXIETY AND DEPRESSION LEVELS**

A. Babacan Gumus, A. Tuna Malak, A. San Turgay

Canakkale Onsekiz Mart University School of Health Sciences

AIM To investigate the fatigue rate before or after radiotherapy (RT) and the correlation between anxiety and depression. METHOD Research lasted one year in hospital of Ege University. Breast cancer, stage II, 34 patients undergoing tumor surgery were evaluated with Fatigue Scale, Hospital Anxiety and Depression (HAD) in RT program. Troid function, hemoglobin, glukoz and electrolyte values of the patients were normal. Patients had not received chemotherapy. Fatigue, anxiety and depression levels were determined by t test. We evaluated correlation between levels of anxiety, depression and fatigue. RESULTS Patients' fatigue increased after RT compared to before RT ( $t = 15.81$ ,  $p < 0.05$ ). There was no significant difference levels of HAD (anxiety  $t = 0.06$ ,  $p > 0.05$ ; depression  $t = 1.43$ ,  $p > 0.05$ ). When the level of fatigue was low correlation between the level of depression ( $r = 0.32$ ,  $p = 0.07$ ), level of anxiety very low relationship ( $r = 0.03$ ,  $p = 0.86$ ). CONCLUSION: In patients with breast cancer is increased fatigue during RT. Anxiety and depression levels did not change before and after the RT. Level of fatigue was low relation between level of depression.

#### **P-050 PRIMARY PULMONARY SARCOMA DURING PREGNANCY: REPORT OF A CASE**

I. Arikan, A. Barut, M. Harma, U. Bayar, S. Gezer

Zonguldak Karaelmas University Faculty of Medicine Department of Obstetrics and Gynecology

Lung cancer in pregnancy is a rare situation which is increasingly reported in the past two decades due to rising trends of cigarette smoking among young women and tendency to delay pregnancy to later in life. We present a case of 32-year-old woman with primary pulmonary sarcoma diagnosed at the 31th week of pregnancy. Chest X-ray and thorax MRI revealed a 9x6 cm mass in the left mediastinum shifting trachea with pleural effusion. Biopsy performed under bronchoscopy was reported as mesenchymal tumor. She was delivered a healthy baby by cesarean section at the 32nd week of gestation due to developing superior vena cava syndrome. A skin biopsy was taken at postoperative third week from the nodular lesion at the periumbilical region was reported as tumor metastasis. She could just receive radiotherapy for 10 days and unfortunately died due to rapidly progressed malignancy. Malignancies, even those as uncommon as pulmonary sarcoma, should be considered in the differential diagnosis of pleural effusion during pregnancy.

#### **P-051 OVARIAN CANCER DURING PREGNANCY: A CASE REPORT**

A. Barut, I. Arikan, M. Harma, U. Bayar, B. Payasli

Zonguldak Karaelmas University Faculty of Medicine Department of Obstetrics and Gynecology

The frequency of cancer in association with pregnancy is only approximately 1 per 1000 live births. This rate may increase as more women postpone childbirth into the age range when cancer becomes more common. Pregnancy will affect the management of cancer, and the cancer will affect the management of the pregnancy. The most common malignancies, in order of frequency, were breast cancer, leukemia and lymphomas as a group, melanoma, gynecologic cancers, and bone tumors. Ovarian tumors are found in about 1 in 1000 pregnancies; of these, 3–6% are malignant, so therefore ovarian cancer occurs in approximately 1 in 12.500–25.000 pregnancies. Here we report a case of ovarian mucinous carcinoma, stage Ia which was diagnosed at 22 weeks of gestation. She was received 3 cycles of carboplatine chemotherapy after conservative surgery. She was vaginally delivered at 33 weeks of her gestation without any neonatal complication and no tumor metastasis to newborn and placenta. Her optimal surgery for staging ovarian cancer was performed postpartum and then she had received 6 cycles of paclitaxel and carboplatine chemotherapy. She is now following at the oncology department as tumor free.

#### **P-052 RECURRENT PARTIAL HYDATIDIFORM MOLE: A CASE REPORT**

A. Barut, I. Arikan, M. Harma, U. Bayar, A. Coskan

Zonguldak Karaelmas University Faculty of Medicine Department of Obstetrics and Gynecology

Hydatidiform moles are abnormal conceptions and are characterized by atypical hyperplastic trophoblasts and hydropic villi with an incidence of 1 in 1000 pregnancies. The recurrent risk of hydatidiform mole in the subsequent pregnancy is about 1 in 60 and 1 in 6.5 in the third pregnancy and if this were to occur, the majority of cases will be of the same type of mole as the preceding pregnancy. Here we are describing a case of recurrent partial hydatidiform mole after the first healthy pregnancy. Both two pregnancies were evacuated by suction curettage and all were histologically confirmed as partial moles. The patient was followed by serial  $\beta$ -human chorionic gonadotropin serum levels. She had an uneventful follow-up. Recurrent molar pregnancy is not an indication for chemotherapy and the following pregnancies are at no increased risk of other obstetric complications.

#### **P-053 COST EFFECTIVENESS OF A NATIONAL CANCER INSTITUTE FOR TURKEY**

N. Ozgul\*, M. Gultekin\*, E. Olcayto\*, H. Yilmaz\*\*, M. Tuncer\*

\*The Ministry of Health of Turkey

\*\*Economic Policy Research Foundation of Turkey

Objective: To investigate the efficacy and cost effectiveness of a national cancer institute (NCI) upon the upcoming cancer epidemic within next two decades. Method: A multidisciplinary working institute is planned to be constructed in Turkey. A model is projected to



see the overall cost efficiency of NCI. Results: Planned NCI will have a total cost of 26 million Turkish Liras in 2010. NCI is projected to spend 370 million dollars between 2010-2030. This number is only %0.3 of the projected cancer budget to be spent within the same time interval. Efficacy is also controlled on a lung cancer analysis. In the absence of NCI, the incidence of lung cancer is projected to be 35.5, 58.7 and 69.2 per 100.000 in 2010, 2020 and 2030; respectively. However in the presence of a NCI, these incidences were found to be 34.6, 37.8 and 33.2 (per 100.000) within the same years which equals to 272.000 less people to suffer from lung cancer within next two decades. The money saved from only the excess lung cancer treatments is roughly 1/5 of total NCI expenditures between 2010-2030. Conclusion: An NCI is a very cost effective tool to prevent, screen and treat cancers in Turkey. This institute should be promptly constructed within nearby future to prevent the probable excess cancer burden in our future.

#### **P-054 COPING BEHAVIOURS AND LEVELS OF DEPRESSION OF FAMILY MEMBERS OF PATIENTS HOSPITALIZED WITH HEMATOLOGIC CANCER**

S. Ozkan

Istanbul University

Objectives: To evaluate the levels of anxiety and ways of coping of family members of patients hospitalized with Hematologic Cancer. Methods: The descriptive study was carried out with the families of 120 patients hospitalized with Hematologic Cancer of a University Hospital in Turkey, between November 2005 and July 2006. Data were collected using a questionnaire for demographical information, The Beck Depression Inventory, and Ways of Coping Inventory. Statistical analysis of the data was carried out with SPSS software, using arithmetic mean and standard deviation, percentage, t test, Kruskal Wallis, Mann-Whitney U, and correlation analyses. Results: Of the family members evaluated, 56.7% were males and the mean age of the family members was  $34.7 \pm 11.13$ . The average score for the Depression was  $47.03 \pm 9.55$ . Financial problems were the main source of stress, being experienced by 56.7% of the participants due to hospitalization of the patient in Hematology clinic. Submissive and helpless coping styles were observed more frequently, as the level of anxiety increased. Conclusions: In light of these findings, it has been found that members of the families of the patients hospitalized in the hematology clinic experienced a significant amount of depression, and that they faced difficulties in coping with depression, indicating that they require help and support.

#### **P-055 FREQUENCY OF THYROID DISORDERS IN BREAST CANCER PATIENTS**

D. Dede, C. Arslan, S. Aksoy, O. Dizdar, E. Dogan, K. Altundag

Hacettepe University Institute of Oncology

AIM: Data exists up on increased frequency of thyroid pathologies in breast cancer patients. We aimed to study the frequency of thyroid disorders in breast cancer patients being followed at our center. METHOD: The retrospective data of 985 patients with breast cancer admitted to our center between years 2004 and 2009 were evaluated. RESULTS: There were 114 (11.6%) breast cancer patients of 984 with several thyroid pathologies. Forty-four patients (4.5%) had history of thyroidectomy because of benign pathologies. Twenty-nine patients were being followed because of goitre (2.9%), and 27 had hypothyroidism (2.7%) and were receiving thyroid hormone replacement therapy. Six patients had history of thyroiditis, and another six had received or was receiving anti-thyroid agents for hyperthyroidism. Two patients had well differentiated thyroid cancer. CONCLUSION: The probable relation of breast cancer with thyroid disorders is known for a long time. However the exact mechanism is not clear. The frequency of thyroid pathologies and particularly hypothyroidism was reported to be increased in breast cancer patients compared to healthy population [1]. The results of our study are also consistent with these data.

#### **P-056 MENINGEAL CARCINOMATOSIS: AN EXTREMELY RARE INVOLVEMENT OF URINARY BLADDER CARCINOMA**

D. Uncu\*, F. Arpacı\*\*, M. Beyzadeoglu\*\*\*, A. Gunal\*\*\*\*, S. Surenkok\*\*\*, M. Ozturk\*\*, N. Ozdemir\*, A. Ozet\*\*

\*Ankara Numune Education and Research Hospital Department of Medical Oncology

\*\*Gulhane Medical Academy Department of Medical Oncology

\*\*\*Gulhane Medical Academy Department of Radiation Oncology

\*\*\*\*Gulhane Medical Academy Department of Pathology

Meningeal carcinomatosis (MC) is a rare presentation of solid tumors, particularly breast cancer, lung cancer and malignant melanoma. Recently MC incidence has been reported to be increasing. It has a bad prognosis despite aggressive therapy. The usual clinical presentation is a multifocal involvement of the neuraxis with headache and radicular pain being the most common initial symptoms. The most frequent signs are motor deficits, altered mental status and cranial nerve involvement. The treatment of MC remains controversial and no straightforward guidelines exist in the literature. MC from urinary bladder tumors is rare. In this case report, we present a 52 years old male patient with meningeal metastasis from a primary urinary bladder carcinoma along with related literature review.

#### **P-057 ANALYSES ON THE RATE AND EPIDEMIC CHARACTERISTICS OF ANXIETY AND DEPRESSION AMONG CANCER PATIENTS IN YANGPU DISTRICT IN SHANGHAI**

A. Li

Yangpu District Center For Disease Control and Prevention

To investigate the rate and epidemic characteristics of anxiety and depression of cancer patients in Yangpu district in Shanghai China. Self-rating anxiety scale (SAS) and self-rating depression scale (SDS) were used to value the index of depression and anxiety of 560 cancer patients living in community, and these cancer patients were randomly selected from the "Shanghai cancer patients database" in cluster sampling. 511 questionnaires were returned and valid. The depression rate according to SDS in cancer patients was 53.03%, and the mild depression rate was 17.61%; the middle depression rate was 25.24%; the heavy depression rate was 10.18%; the trend rate of depression was 22.31%. The anxiety rate according to SAS in cancer patients was 32.68%, and the mild anxiety rate was 11.74%; the middle anxiety rate was 13.50%; the heavy anxiety rate was 7.44%; the trend rate of anxiety was 25.44%. The rate of anxiety and depression was 30.14%. and the ratio of depression accompany with anxiety was 58.78% ; the ratio

of depression accompany with sub-anxiety was 4.35%. The prevalence of depression and anxiety were relatively high among cancer patients aged over 60 or below 30. The occurrence of depression was associated with that of anxiety. Anxiety and depression, two kinds of mental illnesses, can occur on the same patient and influence each other. It is necessary to take integrated psychological intervention methods in the psychological intervention for cancer patients, particularly for young and elderly patients, and to improve life qualities and healing effect of cancer patients.

#### **P-058 USING DATA REDUCTION METHODS TO PREDICT QUALITY OF LIFE IN BREAST CANCER PATIENTS**

A. Pourhoseingholi\*, A. Safaee\*, M. Pourhoseingholi\*, B. Moghimi-Dehkordi\*, H. Tabatabaee\*\*, M. Vahedi\*, B. Zeighami\*\*\*

\*Research Center of Gastroenterology and Liver diseases, Shahid Beheshti University, (M. C), Tehran, Iran

\*\*Department of Epidemiology. Faculty of Health, Shiraz University of Medical Sciences

\*\*\*department of Epidemiology. Faculty of Health, Shiraz University of Medical Sciences

**Background:** Quality of life study has an important role in health care especially in chronic diseases, in clinical judgment and in medical resources supplying. Statistical tools like linear regression are widely used to assess the predictors of quality of life. But usually existed a lot of factor cause difficulty for fitting the models and predicting. In statistical method there are different methods of data reduction that recommended. **Methods:** A cross-sectional study conducted on 119 breast cancer patients that admitted and treated in chemotherapy ward of Namazi hospital in Shiraz. QLQ-C30 questionnaire was used to assessment quality of life in these patients. Principal component analyzing and factor analyzing are tow statistical method of data reduction was used for reducing the number of predictors. **Results:** The mean score for the global health status for breast cancer patients was  $64.92 \pm 11.42$ . univariate Linear regression showed that only role function, social function and diarrhea were not significant. Principal component analyzing and factor analyzing, consider all of 14 factors to 7 component and 7 factors. According to adjusted R square model fitting with reducing predictors were better than model fitting with initial predictors. **Conclusion:** when there are a lot of factors existed in a model, use different method of data reduction causing better and easier model fitting and predicting.

#### **P-059 METASTATIC ALVEOLAR SOFT PART SARCOMA: AN UNUSUAL LONG TERM SURVIVAL**

F. Kos, D. Uncu, B. Oksuzoglu, N. Ozdemir, H. Odabas, M. Isik, B. Civelek, N. Babacan, N. Zengin

Ankara Numune Education and Research Hospital Department of Medical Oncology

Alveolar soft part sarcoma (ASPS) is very rare disease and involves 0.5 – 1 % of soft tissue sarcomas. ASPS is a slowly growing tumor and found mostly in extremities. It usually metastasize to the lungs, bone and not infrequently to the brain. In the literature, median survival of patients with metastatic disease was reported between 3 – 3.5 years. We would like to present a rare case of metastatic ASPS who has been followed-up for 17 years despite metastatic at the first admission. Seventeen year-old male patient was admitted to the clinic with a mass in the gluteal region. ASPS was diagnosed by excisional biopsy. Thoracic computerized tomography revealed bilateral lung metastases. Although various chemotherapeutic agents were used no objective response was obtained and he developed brain metastasis after 15 years of follow-up and metastasectomy performed. This is a very rare patient that is alive up to 17 years in the literature.

#### **P-060 ETHICAL ISSUES IN END-OF-LIFE CARE**

M. Daher

President, Lebanese Cancer Society

Because of technical advances in the care of critical illness, physicians, patients, and families are often confronted with ambiguous circumstances in which medical advances may inadvertently prolong suffering and the dying process rather than bring healing and recovery. Excellent resources are available that review these issues in greater depth. Ethical principles (respect for persons, beneficence, non-maleficence, and Justice) must be defined and respected. These ethical issues are profoundly influenced by values, culture, religion. The objectives of this presentation are to: 1) review major principles of medical ethics relevant to the care of terminally ill patients; 2) explore further the principle of autonomy and its application to advanced directives, informed consent, and medical futility; 3) characterize the ethical differences between withholding or withdrawing life-sustaining therapies and physician-assisted death; 4) define a process for communicating bad news and negotiating decisions at the end of life; and 5) examine ethical problems specific to terminal illness in light of these principles. Patients and their physicians together face a number of challenging ethical issues at the end of life. Although some issues (e.g., the role of physician-assisted death in addressing suffering) remain very controversial, there is much common ground based on the application of the four major principles of medical ethics, nonmaleficence, beneficence, autonomy, and justice. When ethical dilemmas occur, Ethics Committees must be involved.

#### **P-061 SPIRITUAL CARE, NEGLECTED ASPECT OF HEALTH IN CANCER MANAGEMENT**

A. Akbari, M. Asadilari, S. Mousavi, Z. Madjd, A. Motlagh, M. Akbari

Cancer Research Center, Shahid Beheshti University of Medical Sciences

Health is complete physical, mental, social, spiritual and ecological well being. But the prevailing medical science paradigm is based on biological model only. The holistic conception of health encompasses the biological, psychological, social, and spiritual wellbeing of an individual and his or her social community under conditions of equity. Spirituality in Latin means “breath” and is “a sense of connection to something greater than oneself”. It is that part of human beings which seek “meaning” and “purpose of life”. Spiritual beliefs and spiritual practices may impact both on a person’s response to a certain disease and the outcome of disease process. Evidently, spiritual factors like adaptation and acceptance have a positive impact on the course of cancers, substance abuse disorders and other diseases, whereas anxiety and indifferentism are obviously negative factors in coping with most of diseases. Religious and spiritual beliefs are important aids in coping with serious diseases in a positive way, and remaining the central point of reflection in patients when all biomedical treatments are no longer effective in terminal disease. Patient’s spiritual believes can impact diagnoses, treatment and follow up of cases. Cancer survivors often rely on their religious and spiritual beliefs as a way of deriving the meaning of their illness experience and survivorship. Although addressing spiritual concerns is often considered a life issue, such concerns may arise at any time after diagnoses. In Islamic content there are many strong believes concerning the spiritual concept to

support life of people living with cancer, qualitatively and quantitatively which will be discussed in this paper.

## **P-062 NURSING INFORMATICS: NEW PERSPECTIVE FOR QUALITY IMPROVEMENT OF CANCER CARE**

E. Maserat, N. Samadi, N. Mehrnoosh, M. Zali

Research Institute for Gastroenterology and Liver Disease Shaheed Beheshti

Introduction: Information have key role for effective decision making to quality nursing practice. Computer science, information science, and nursing science combined to assist in the management and processing of nursing data, information and knowledge to support the practice of nursing and the delivery of nursing care especially in cancer care. However aim of this study is applications of nursing informatics in quality improvement of cancer care. Method and material: Multiple databases of scientific contents were explored in order to assess the presence of nursing informatics or conceptually related terms. The databases were Medline (PubMed) and google scholar. Discussion: This article present application of nursing informatics in three categories. Clinical practice, education and research in cancer management are studied fields. In addition, researchers survey impact of applications in enhancing of cancer care. Conclusion: Nurses today are facing increasing information and complexity of data about cancer care. Nursing informatics simplifies this complexity and manages information in neoplasm field. Furthermore this technology facilitate on time access to accurate and complete information for best care.

## **P-063 MULTIFOCAL SOLID PSEUDOPAPILLARY TUMOR IN PANCREAS ;CASE REPORT**

E. Kimiloglu Sahan, E. Kusku, A. Akyildiz Igdem, E. Celik, U. Tetikkurt, N. Erdogan  
Taksim's Education and Training Hospital, Pathology Department, Istanbul/TURKEY

INTRODUCTION: Pancreatic solid pseudopapillary tumor (PSPT) is a rare tumor which histogenesis is still indefinite particularly. PSPT shows solid and cystic growing pattern as its name indicates. It forms %1-3 of all pancreatic tumors. It is seen in young adult females primarily, but it is also defined in males and older patients in low percentages. It is thought to be low malign potentially because cure occurs by simple total resection. Besides the morphological and demographical characteristics of the tumor for strict diagnosis and to predict the prognosis seems to be more important. CASE: The patient was 29 years old man. He had pain in midline of the abdomen, the pain reflected to the back also. There was a 2.5 cm diameter solid mass in the body of pancreas by abdominal computed tomography. Subtotal distal pancreatectomy was performed. Macroscopically, there were two masses in the subtotal distal pancreatectomy material, one of them was 3.4 cm diameter in the body of pancreas. It was a brilliant and grey-white solid lesion. And the other was 0.7 cm diameter grey white solid lesion in the tail of pancreas. Microscopically, there was a tumoral proliferation which formed pseudopapillary formations, nests, rosette-like formations in the hematoxylin and eosin sections. The tumor cells had thin chromatin and some of the cells had groove or central small nucleol, oval or round nucleol, clear/eosinophilic cytoplasm. These cells arranged in a row along hyalinized fibrovascular cores.

## **P-064 A CASE OF HYPERKALEMIA IN A PATIENT WITH HEPATOCELLULAR CARCINOMA PROBABLY DUE TO SORAFENIB**

U. Uyeturk, K. Helvacı, B. Budakoglu, B. Oksuzoglu, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey

Introduction; Sorafenib, a multitargeted oral tyrosine kinase inhibitor, prolongs the survival in patients with advanced hepatocellular carcinoma (HCC). Common adverse reactions include skin reaction as hand and foot syndrome and rash, cardiac ischemia and/or infarction, and hypertension. Hyperkalemia is a potentially life-threatening electrolyte disturbance that can lead to sudden death from cardiac arrhythmias. One of the frequent encountered reason for hyperkalemia is drug side-effect. We present a case of severe hyperkalemia due to sorafenib in a patient with HCC. Case; A 35-year-old man with unresectable HCC, who is HBsAg positive, was planned to be given sorafenib because of progressive disease after locoregional chemoembolization. In the second month of the sorafenib treatment, he was admitted to the emergency department with a one week history of weakness and drowsiness. Serum potassium level was 8.3 mmol/L (3.5-5.5 mmol/L) accompanied with mild elevations in liver enzymes. His electrocardiogram was suggestive of an effect of hyperkalemia. He did not have a prior use of medication that can cause hyperkalemia. Sorafenib treatment was stopped and emergency hemodialysis was applied for three times. After the treatment, his potassium level reduced to normal ranges and stabilized. Conclusion; In literature, there is only one case of sorafenib induced hyperkalemia which was observed in a patient with tumor lysis syndrome. Our case did not have other signs of tumor lysis syndrome. Besides, he was not using any other drugs that can cause hyperkalemia and his potassium levels recovered after cessation of sorafenib which are remarkable for sorafenib induced hyperkalemia.

## **P-065 PRIMARY UTERINE EWING'S SARCOMA: A VERY RARE CASE REPORT**

U. Uyeturk, I. Turker, B. Budakoglu, B. Oksuzoglu, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey

Introduction: and objectives; Ewing sarcoma (ES) is the second most common malignant bone tumor after osteosarcoma. Atypical extraskelatal ES is rare however but atypical primary sites like uterus is even rarer. Case; A seventeen-year old single women was admitted to hospital with the complaints of vaginal bleeding. Suspected uterine myoma, she was underwent myomectomy. The diagnosis of ES were reported. Immunohistochemical staining of the pathology specimen revealed diffuse positive staining with CD 99, neuron specific enolase (+), all others including CD10, LCA, chromogranin, EMA were negative. Staging computed tomography (CT) of the thorax and the abdomen only showed 2 cm lymphadenopathy (LAP) near iliac bifurcation in the abdomen. To confirm the staging FDG-PET was done. Pathological FDG uptake was only seen in the intraabdominal LAP, defined in CT. NCI chemotherapy protocol including vincristine, adriamycine, cyclophosphamide alternating with ifosfamide, etoposide was initiated. After 12th week, she was performed laparotomy and total abdominal hysterectomy and LAP dissection were done. Pathological examination of the operation material showed residual tumor in the obturator lymph node and other other findings were within normal limits. She has still having chemotherapy. Conclusion; Uterus ES is a very rare and aggressive tumor seen in women with reproductive age. Local and distant metastases are commonly seen. Early diagnosis and treatment is important in achieving high cure rates. Multimodality

treatment including surgery, chemotherapy, and/or radiotherapy are essential and should be considered in the treatment planning.

#### **P-066 THYROID ANAPLASTIC CARCINOMA: CASE REPORT WITH EVIDENT RESPONSE TO TREATMENT**

U. Uyeturk, I. Turker, B. Oksuzoglu, B. Budakoglu, U. Yalcintas Arslan, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey  
Introduction and objectives; Thyroid cancers are rare neoplasms and constitutes 2% of all visceral malignancies. Thyroid anaplastic carcinoma (TAC) is even rarer and seen up to 2 % of all thyroid tumors. TAC is usually more aggressive than other thyroid tumors and local and/or distant metastasis are very common. Besides, overall survival is poor and measured by months. Case; A 64-year old man was admitted to hospital with a 2 cm nodule in the thyroid left lobe. Since the result of the aspiration biopsy of this nodule revealed suspicion of malignancy, total thyroidectomy was performed in March 2008 and pathological diagnosis was consistent with TAC. Afterwards he had radiotherapy to the neck region (200 cGy x 23 fr). On October 2008, computed tomography of the neck and chest showed recurrent soft tissue mass in right cervical region and multiple metastatic lesions in the lungs. Chemotherapy with cisplatin and 5-fluorouracil was started. After 3 cycles of chemotherapy clinical and radiological regression in both cervical lymph nodes and metastatic nodules in the lung was observed and 3 more cycles were given. After 6 cycles of chemotherapy, cervical mass totally disappeared and the lung lesions were stable and he has been still followed-up without symptoms. Conclusion; Multidisciplinary treatment plan and follow-up is important in tumors like TAC. Surgery, chemotherapy, and/or external radiotherapy combinations are the possible suggested options. However, the prognosis is still dismal for TAC patients and new drugs are awaited.

#### **P-067 PRIMARY THYROID NON HODGKIN LYMPHOMA**

U. Uyeturk, I. Turker, O. Uysal Sonmez, B. Oksuzoglu, B. Budakoglu, U. Yalcintas Arslan, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey  
Introduction and objectives; Less than 1% of thyroid cancers are primary non hodgkin lymphoma (NHL). Primary thyroid NHL is usually diffuse large B cell lymphoma type and usually presents with advanced disease. Differential diagnosis between thyroid NHL and other thyroid benign diseases such as subacute thyroiditis, hashimoto's thyroiditis and anaplastic carcinoma may be challenging. Case; Seventy eight year old woman was admitted to hospital with difficulty in swallowing. On her physical examination there was a firm thyroid mass. Thyroid ultrasonography was shown 43x20 mm irregular heterogen suspicious nodule totally filled the left thyroid lobe. Thyroid fine needle (FNA) aspiration biopsy was shown lymphoid cells and rare epithelial cells. Tomography scan of the neck showed 4x5 cm mass totally invading thyroid left lobe and lying to retropharyngeal areas and also displacing larynx, trachea and left great vessels. Excised biopsy inside the thyroid was done for further pathological examination. Pathological findings was shown CD 20 positive diffuse B cell lymphoma without any other organ or lymph node site involvement (stage 1E disease). The CHOP-R (cyclophosphamide 750 mg/m<sup>2</sup>, doxorubicin 50 mg/m<sup>2</sup>, vincristine 1.4 mg/m<sup>2</sup>, rituximab 375 mg/m<sup>2</sup>, day 1 and prednisolone 100 mg/day for 5 days) was started after this confirmed diagnosis. Conclusion; Open biopsy is usually needed to confirm diagnosis of NHL. Chemotherapy and radiotherapy are important treatment modalities in primary thyroid NHL. Surgery may also be involved in case of obstruction or bleeding. Optimal treatment is also controversial because of the rarity of the disease and atypical location site.

#### **P-068 IMMUNE THROMBOCYTOPENIC PURPURA IN A BREAST CANCER PATIENT**

U. Uyeturk, I. Turker, S. Arslan

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey  
Introduction: Direct involvement of bone marrow or adverse events of chemotherapy or radiotherapy toxicity are common causes of thrombocytopenia in a cancer patient. Drug induced thrombocytopenia is usually reversible. Many drugs may cause thrombocytopenia however paclitaxel induced thrombocytopenia is seen in 1 to 7% of cases. Case; Fifty five year old breast cancer patient with right invasive ductal carcinoma grade 2, TNM stage was T3N2M0 and Hormone receptor positive, c-erbB2 negative was admitted to our clinic. After 4 cycle adjuvant anthracycline based chemotherapy and radiotherapy to breast and axilla paclitaxel 80 mg/m<sup>2</sup> weekly treatment was started. After 7 weeks paclitaxel treatment she was developed purpuric reddish skin rash on her legs and thrombocyte count was decreased to 7000/μl. Paclitaxel was stopped after this finding. Thrombocyte counts remained below the level of 1000/μl for 2 months with no chemotherapy. Biochemical tests, thyroid function tests and viral serology were all within normal levels. There was no enlargement of liver or spleen. Bone marrow aspiration and biopsy was shown increased cells of erythroid, myeloid and megakaryocyte series with no blastic or tumoral invasion. Persistent thrombocytopenia after cessation of paclitaxel in this patient suggested the diagnosis of immune thrombocytopenic purpura (ITP). After that 1 mg/kg day prednisolone was initiated. Platelet counts gradually returned to the level of 150.000/μl. Conclusion; ITP should be considered if there is no defined reason and persistence of low platelet count with normal or elevated megakaryocytes

#### **P-069 ALVEOLAR SOFT PART SARCOMA, METASTASIS IN BREAST, CASE REPORT**

E. Kimiloglu Sahan\*, B. Bilgic\*\*, E. Kusku\*, E. Celik\*, N. Erdogan\*

\*Taksim's Education and Training Hospital, Pathology Department, Istanbul/TURKEY

\*\*Istanbul University, Istanbul Medical School, Pathology Department,

Introduction: Alveolar soft part sarcoma (ASPS) is a rare neoplasm that forms the 0.5-1% of all soft part malignant tumors. More often it occurs in women, especially in adolescents and young adults between 15-35 years. Frequently, the tumor is observed in lower extremities. Following it is observed in head and neck region. Metastases occur in lungs, brain and bones. There are rare cases of ASPS reported in breast, but the metastases of ASPS in breast is rarer. CASE: 19 years old female patient presented with a mass in proximal-mid anteromedial of right thigh. ASPS was diagnosed by tru-cut biopsy. Then excisional biopsy was performed and the patient was given combined chemoradiotherapy. Radiographically there were multiple solid masses in lungs. Later, the patient presented with a solid mass in breast. Microscopically, there was a tumoral proliferation which was circumferenced by fibrous septums and formed nodular formations. The cells of this proliferation formed solid nests, cords, trabeculae and alveolar structures. The cells had round nucleus, conspicuous nucleolus and wide eosinophilic cytoplasm. There were fibrous septations, inconspicuous endothelialised sinusoidal pattern in this proliferation. There were lymphoid cells and breast ducts and lobules near the tumoral

proliferation. Histochemically and immunohistochemically ,PAS and myo D1 were positive.We present the case here because the metastases of ASPS in breast is rare.

#### **P-070 ANTI-PROLIFERATION AND APOPTOSIS INDUCTION OF PLANT POLY-METHOXYLATED FLAVONE EXTRACTS ON CANCER CELLS**

K. Thanyaphattraphong\*, V. Leardkamolkarn\*\*

\*Toxicology Graduate Programmed, Faculty of Science, Mahidol University, Thailand

\*\*Department of Anatomy, Faculty of Science, Mahidol University, Thailand

Flavonoid derivatives have broad spectrum of biological activities including prevention of carcinogenesis. Many investigations reveal that the anticancer effect of these compounds depends on their poly-phenolic groups. So, in this study, we examined the anti-proliferation and specific mechanistic effects of two flavonoid derivatives isolated from plant, *Gardenia Collinsae*. The pure compounds; 5,3'-dihydroxy-6,7,4',5'-tetramethoxyflavone (TMF) and 5-hydroxy-6,7,3',4',5'-pentamethoxyflavone (PMF), at varied concentrations were incubated with human hepatoma (HepG2) and colon cancer (Caco-2) cell lines in cultures. Cytotoxicity was determined at various times after the treatments by MTT assay. Apoptotic induction and cell cycle regulation proteins were analyzed by nuclear staining, Flow cytometry, and Immunoblotting. The results revealed significant inhibition of cell proliferation and induction of apoptotic cell death in both cell types by PMF, but not by TMF. PMF exerted its anti-proliferation effect in HepG2 cell by cell cycle arrest at G2/M phase and in Caco-2 cell at S-G2/M phase. The cell cycle blockade was associated with perturbation of cycle regulator protein, cyclin-B1. PMF also induced morphological alteration and nuclear fragmentation (apoptosis induction) in both cell types but the profound effect was observed in HepG2 than Caco-2 cell. The cell death pathway induced by PMF was through increasing of p53 protein expression, decreasing of Bcl-2 protein and caspases-3 enzyme activities. The results suggested that PMF has a potential to be developed for future chemo-preventive and chemotherapeutic agent against liver and colon cancers.

#### **P-071 LATE RECURRENCE OF A GASRIC CANCER WITH METACRONE COLON TUMOR**

I. Turker, U. Yalcintas Arslan, U. Uyeturk, B. Budakoglu, B. Oksuzolu, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey

Introduction and objectives; Although the incidence of gastric cancer decreases in developed countries, It is still the second cause of cancer death in the world. We present this case since late recurrence of this stage 3 A gastric cancer associated with metacrine colon cancer is rarely seen. Case; Fifty six year old man with symptoms of nausea, vomiting and weight loss was admitted to our clinic. Upper endoscopy was shown obstructing malignant narrowing in the stomach. Abdominal tomography was also shown colonic dilatation in sigmoid colon. He diagnosed gastric adenocarcinoma by biopsy and near total gastrectomy and left hemi-colonectomies were done together. Pathology of the stomach showed multicentric gastric adenocarcinoma infiltrated serosa with 1 metastatic and 24 reactive lymph nodes. Histopathology of the colon gave the result of Astler Collier stage B2 well differentiated adenocarcinoma with negative margins. There after adjuvant 5-fluorouracil with levamisole were given for a year. After chemotherapy he did not come to follow up visits. He was re-admitted to our clinic 12 years later with nausea and vomiting. Upper endoscopy and biopsy were shown recurrent gastric adenocarcinoma. Higher subtotal gastrectomy was applied. Pathology was adenocarcinoma of stomach without lymph node involvement with free margins. Adjuvant 5 fluorouracil with leucovorin regimen were started. He is still disease free and followed in our clinic. Conclusion; After five years, recurrence of gastrointestinal tumors after curative surgery is very rare. Late recurrent gastrointestinal tumors may be different from early recurrent tumors histopathologically and their treatment response.

#### **P-072 SYNCHRONOUS SMALL CELL, MUCINOUS SIGNET RING CELL CARCINOMA OF THE STOMACH**

I. Turker\*, N. Turhan\*\*, B. Oksuzoglu\*, O. Uysal Sonmez\*, U. Yalcintas Arslan\*, B. Budakoglu\*, N. Zengin\*

\*Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey  
\*\*Turkiye Yuksek Ihtisas Training and Research Hospital, Pathology Department, Ankara, Turkey

Introduction and objectives; Synchronous small cell carcinoma and signet cell carcinoma of the stomach is very rare in the literature. They are defined to be more aggressive with poor survival. Case; Fifty-four year-old man with difficulty in swallowing was admitted. Upper endoscopy showed distal esophageal and gastric lesions. Endoscopic biopsy revealed gastric adenocarcinoma. Computed tomography of thorax and abdomen showed no distant metastasis. Gastrectomy with D2 lymph node dissection and splenectomy was applied. Pathology of the specimen showed concomitant small cell carcinoma and undifferentiated carcinoma (<50% mucinous component and <50% signet ring cell carcinoma component). The tumor was infiltrating the esophagus, 20/34 lymph nodes were involved. There was also vascular and neural invasion but the omentum was tumor-free. Adjuvant chemotherapy (cisplatin and etoposide) was planned primarily targeting the worse and rapidly progressing component. Two cycles of the regimen up to now was applied and he has been still followed without progression. Conclusion; Primary gastric small cell carcinoma with other primary gastric carcinoma like signet ring cell carcinoma is very infrequently seen. Urgent diagnosis and aggressive treatment plans are needed since survival is poor.

#### **P-073 BREAST CARCINOMA AND ADRENAL MASS ASSOCIATION: CASE REPORT**

U. Uyeturk, M. Akinci, B. Oksuzoglu, B. Budakoglu, U. Yalcintas Arslan, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey

Introduction: Adrenal metastases are seen in 58 % of breast cancers. Primary tumors of adrenal gland arise from the cortex or the medulla, and neuroectodermal pheochromocytomas account for 4-15 % of such tumors. This presentation will discuss a case of hormonally inactive pheochromocytoma detected in a patient diagnosed for breast cancer. Case : A 55 year-old woman, who had underwent left modified radical mastectomy for breast carcinoma five years ago prognosed as infiltrative ductal carcinoma on pathological examination, hormone receptors were negative, HER2 level were positive, and the stage was T2N2M0. She took taxane and antrastin based chemotherapy and hormone therapy. At the follow up mass 2 cm in diameter in the right adrenal gland was detected on abdominal computerized tomography. Pathologically increased fluorodeoxyglucose uptake (Suvmax: 38.15) was detected on positron emission tomography, an overnight dexamethazone suppression test was performed in the patient to assess the hormonal activity. Urine metanephrine, normetanephrine, and vanillyl mandelic acid levels and plasma aldosterone, renin levels were

normal. The patient underwent adrenalectomy with the prediagnosis for adrenal metastasis of breast cancer. The result of pathological examination was pheochromocytoma without vascular invasion. Conclusion: Pheochromocytoma is usually localized in adrenal medulla. It is an endocrine tumor presenting with clinical adverse effects due to excessive increase in the levels of catecholamines. For accurate diagnosis and treatment approach in patients diagnosed for malignancy, biochemical, radiological, and pathological evaluation of the adrenal mass is crucial. Primary neoplasms of the adrenal gland should be distinguished from metastases to the adrenal gland.

#### **P-074 ULCERATIVE BREAST CANCER: REPORT OF CASE**

T. Sagioglu, A. Sezer, M. Yagci, I. Coskun

Trakya University, School of Medicine, Department of Surgery

**INTRODUCTION:**In the literature, there is an astonishingly small amount of information on specific treatment modalities of locally advanced, ulcerated breast cancer. **CASE:**A 72 years old woman admitted to our breast clinic with a gross malignant ulceration, which had destroyed entire right breast. Physical examination was revealed a ulcerated gross tumor with bloody and purulent material and fixed axillary lymph node. Tumor growth had been noticed approximately 3 years earlier, but fear and shame had prevented the woman from seeking professional help. Surprisingly, visceral or bone involvement of disease could not be documented. The patient referred to neoadjuvant chemotherapy but she refused. Muscle-preserving radical mastectomy with skin transplantation was performed. The patient was referred to oncology department for adjuvant treatment. But she refused adjuvant treatment again. In the follow up the patient has no recurrence during 6 months. **DISCUSSION:**The incidence of ulcerative breast cancer (T4 b) varies between countries and in Turkey it is suggested as higher than the world average. Possible explanations include urbanization and socio-economic status. The most important thing in treatment is the patient's good faith in. Breast cancer and its treatment in our country, people are missing information is available as in our case. Clinical management of an increasing number of women with breast cancer embraces a multidisciplinary team-based approach, with regular discussions of therapeutic strategies at tumor boards. In order to improve breast cancer diagnostics and therapeutics in our country, it is important that there are continual breast cancer and breast disease-related educational activities for medical professionals engaged in diagnosing and managing breast cancer. The role of public education in raising awareness is also essential.

#### **P-075 NESTED VARIANT OF UROTHELIAL CARCINOMA: A CLINICOPATHOLOGIC AND IMMUNOHISTOCHEMICAL STUDY OF 1 CASE**

A. Kurt\*, R. Ozkurt\*\*

\*Department of Pathology, Education and Investigation Hospital, Erzurum, Turkey

\*\*Department of Urology, Education and Investigation Hospital, Erzurum, Turkey

The nested variant of transitional cell carcinoma (TCC) is a rare neoplasm of the urinary bladder. We have reported a case of a 74-years-old man, with a large recurrent bladder tumor, occupying almost the entire bladder. He presented with an episode of urinary retention with no history of hematuria. This case is being reported due to its rarity, unusual histology and its prognostic significance emphasizing the need to distinguish it from the classic TCC. Within the last 1.5 years the carcinoma was recurrent and reoperated. On microscopic examination: Our case was characterized by confluent small nests and it is characterized by urothelial cells forming irregular small nests and abortive tubules of mildly atypical neoplastic cells infiltrating the lamina propria and muscularis propria of the bladder. The entire tumour was infiltrated by nests of polygonal cells with oval vesicular to hyperchromatic nuclei and eosinophilic to clear cytoplasm. They contain urothelial cells with mild pleomorphism, slightly increased nuclear/ cytoplasmic ratio, and occasional prominent nucleoli. Increased pleomorphism was seen occasionally in the deepest components of the tumor. Mitotic figures were not readily identified. Tissues from case was stained with monoclonal antibodies to p53, Ki 67 and bcl-2, supporting the aggressive nature of such tumors. This patient was alive, and has no metastases. This tumor is a deceptively benign-appearing neoplasm with potential of deep invasion and metastases.

#### **P-076 SYNCHRONOUS OCCURRENCE OF A PRIMARY COLON ADENOCARCINOMA AND A SMALL BOWEL STROMAL TUMOR. A CASE REPORT.**

T. Sagioglu, M. Yagci, A. Sezer, O. Musri, H. Aksoy, I. Coskun

Trakya University, School of Medicine, Department of Surgery

**Introduction:**Gastrointestinal stromal tumors are currently the object of a great clinical and experimental interest. Little is known about the synchronous occurrence of gastrointestinal stromal tumors (GISTs) and other gastrointestinal tumors. **Methods:**We are presenting the case of a 70-year-old woman patient, who was presented with lower gastrointestinal bleeding and abdominal pain over the last six months. **Case:**A 70-year-old woman was admitted with complaints of loss of weight, fatigue, and abdominal pain. His medical history revealed lower gastrointestinal bleeding and 5 unit blood replacement over the last six months. Laboratory findings were within normal limits on admission. Computed tomography showed two masses on the cecum and jejunum. Colonoscopy revealed an exophytic-vegetative mass located on the cecum. Endoscopic biopsy showed adenocarcinoma of cecum. Exploratory laparotomy revealed a well-circumscribed nodular gray-white lesion, measuring 4 cm and located on the subserosa of the proximal jejunum and a second mass, measuring 8 cm and located on the cecum. Right hemicolectomy and partial small bowel resection was performed. Microscopically, the cecal tumor was a poorly differentiated adenocarcinoma. Microscopic examination also showed one stromal mass in the proximal jejunum which were composed of spindle cells with no pleomorphism and mitotic activity. Immunohistochemically, jejunal mass were positive for CD117, Ki-67, CD34, smooth muscle actin and negative for S-100 protein and desmin. The postoperative course was uneventful and the patient was discharged at the 6 th day of operation. **Conclusion:**The synchronous occurrence of gastrointestinal stromal tumor and adenocarcinoma is an uncommon finding. It seems to be related to incidence of colorectal surgeries. Investigating the molecular alterations in such cases may reveal the etiology of this association.

#### **P-077 PERFORATED COLORECTAL CANCER**

T. Sagioglu, M. Yagci, A. Sezer, O. Musri, H. Aksoy, A. Hatipoglu

Trakya University, School of Medicine, Department of Surgery

**Introduction:** Perforation of colorectal cancer (CRC) is rare and is associated with a significantly high mortality and morbidity. There is still no unanimity of opinion as to the most effective methods of handling perforation caused by these tumors. This study is to verify the dismal connotation associated with perforated colorectal carcinomas. **Patients and Methods:** Between 2007 and 2009, 11 patients with perforated CRC have been treated at our clinic. The records of these patients were reviewed retrospectively. **Results:** Of the 11 patients 4 (36.3%) were female and 7 (63.6%) were male. The mean age of the patients was 69.1 (range 32-85 yr). Four patients had perforation at the tumour, seven proximal to the tumour. The perforation was localised in 3 (27.3%) patients. However, 8 (72.7%) patients had free perforation with frank faecal peritonitis. One patient had resection and anastomosis, 9 patients had resection without restoration of bowel continuity and 1 had palliative colostomy. The most common associated symptoms/signs were abdominal pain and tenderness. The in-hospital mortality (within 30d) was 36.3 % (n=4). Mean postoperative hospital stay was 16.2 days (range 7-30 days). Mean follow-up time was 13.7 months (range 6-24). One patient died of peritoneal carcinomatosis and liver metastases 1 year post-operatively. The other six patients are still alive. **Conclusion:** The outcome of perforated colonic cancer continues to be poor. A cumulative effect of malignancy and sepsis may be responsible for the high postoperative mortality in malignant perforation. Early diagnosis in diastatic perforation and aggressive management of sepsis associated with radical surgical resection is recommended.

#### **P-078 FOXP3 EXPRESSION IN P53-DEPENDENT DNA DAMAGE RESPONSES**

D. Jung, D. Jin, J. Kim, S. Hong, J. Shin, W. Lee

Seoul National University College of Medicine

The forkhead transcription factor, Foxp3, is thought to act as a master regulator that controls (suppresses) expression of the breast cancer oncogenes, SKP2 and HER-2/ErbB2. However, the mechanisms that regulate Foxp3 expression and thereby modulate tumor development remain largely unexplored. Here, we demonstrate that Foxp3 up-regulation requires p53 function, showing that Foxp3 expression is induced in a p53-dependent manner after DNA-damage in human breast and colon carcinoma cells. Treatment with the genotoxic agents, doxorubicin or etoposide, induced Foxp3 expression in p53-positive carcinoma cells, but not in cells lacking p53 function. Furthermore, knockdown of endogenous wild-type p53 using RNA interference abrogated Foxp3 induction by genotoxic agents, and exogenous expression of p53 in cells lacking p53 restored the responsiveness of Foxp3 to DNA-damaging stresses. In addition, Foxp3 knockdown blunted the p53-mediated growth inhibitory response to DNA-damaging agents. These results suggest that induction of Foxp3 in the context of tumor suppression is regulated in a p53-dependent manner and implicate Foxp3 as a key determinant of cell fate in p53-dependent DNA-damage responses.

#### **P-079 SELECTIVE KILLING EFFECT OF ASCORBATE DETERMINED BY SODIUM-DEPENDENT VITAMIN C TRANSPORTER 2 (SVCT-2) LEVELS IN HUMAN BREAST CANCER CELLS**

S. Hong\*, D. Jin\*, E. Ko\*\*, H. Kim\*\*, D. Kim\*\*\*, J. Kim\*, J. Shin\*, D. Jung\*, B. Jo\*\*\*\*, J. Kang\*, Y. Hwang\*, D. Noh\*\*, W. Lee\*

\*Department of Anatomy and Tumor Immunity Medical Research Center, Seoul National University College of Medicine

\*\*Department of Surgery and Cancer Research Institute, Seoul National University College of Medicine

\*\*\*Department of Anatomy, Chung-Ang University, College of Medicine

\*\*\*\*Department of Ophthalmology, Konkuk University, School of Medicine, Konkuk University Hospital

Ascorbate (ascorbic acid, vitamin C) clearly has an inhibitory effect on cancer cells. However, the mechanism underlying differential sensitivity of cancer cells from same tissue to ascorbate is yet to be clarified. Here, we demonstrate that ascorbate has a selective killing effect, which is influenced by sodium-dependent vitamin C transporter 2 (SVCT-2) in human breast cancer cells. Treatment of human breast cancer cells with ascorbate differentially induced cell death, dependent on the SVCT-2 protein level. Moreover, knockdown of endogenous SVCT-2 via RNA interference in breast cancer cells expressing high levels of the protein induced resistant to ascorbate, whereas transfection with SVCT-2 expression plasmids led to enhanced ascorbate chemosensitivity. Enhanced chemosensitivity to ascorbate occurred as a result of caspase-independent autophagy, which was mediated by beclin-1 and LC3 II. In addition, treatment with NAC, a Reactive Oxygen Species (ROS) scavenger, suppressed the induction of beclin-1 and LC3 II, implying that the differential SVCT-2 protein-dependent ascorbate uptake was attributable to intracellular ROS induced by ascorbate, subsequently leading to autophagy. Interestingly, SVCT-2 expression was absent or weak in normal tissues, but strongly detected in tumor samples obtained from breast cancer patients. These results suggest that functional SVCT-2 sensitizes breast cancer cells to autophagic damage by increasing the ascorbate concentration and intracellular ROS production. Moreover, SVCT-2 in breast cancer may act as an indicator for commencing ascorbate treatment.

#### **P-080 RENAL HEMANGIOPERICYTOMA: A CASE REPORT**

A. Akyildiz Igdem\*, E. Celik\*, E. Sahan\*, A. Fazlioglu\*\*, N. Erdogan\*

\*Taksim's Education and Research Hospital,, Pathology Department, Istanbul/TURKEY

\*\*Taksim's Education and Research Hospital,, Urology Department, Istanbul/TURKEY

**Background:** Hemangiopericytoma is a rare vascular tumor that occurs frequently in the pelvis, head and neck, and meninges; it is extremely rare in the kidney. **Design:** We report a case of hemangiopericytoma that presented in the right kidney. A 55-year-old woman presented with two months history of right inguinal pain. Ultrasound revealed a heterogeneous mass. Computed tomography (CT) showed a 15-cm diameter heterogenous solid mass of the right kidney. Right radical nephrectomy was performed. Macroscopically, the tumor was solid and hard. The cut surface of the tumor was pale pink and brown. Microscopically, tumor cells varied greatly in size and shape in the varying amount of intercellular connective tissue with invasion of hilar renal vein. **Results:** Immunohistochemically, the neoplastic cells were strongly positive for CD 34 and vimentin, but negative for bcl-2, smooth muscle actin (SMA), desmin, CD 10, epithelial membrane antigen (EMA) and pancytokeratin. **Conclusion:** We present the case because of its rareness in the kidney.

#### **P-081 GASTRIC CANCER AND SCROTAL MASS: A CASE REPORT**

K. Helvacı, U. Uyeturk, U. Yalcintas Arslan, B. Budakoglu, I. Turker, B. Oksuzoglu, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey

**Introduction:** Gastric cancer can spread directly, via lymphatics, or hematogenously. Metastasis to the testis can be not infrequently seen with prostate and lung cancer. However, testicular or paratesticular metastasis of gastric cancer is a very rare clinical entity.

**Case:** A 65 year-old man was admitted to the hospital with the complaints of fatigue, loss of appetite and loss of weight. He was diagnosed as low grade gastric adenocarcinoma by endoscopic biopsy from the polypoid lesions in the cardia and gastro-oesophageal junction. Total gastrectomy was performed. Three months after the operation, he was admitted with the painless swelling of the left scrotum and left orchiectomy was performed. Histopathological examination revealed that the tumor was mucinous adenocarcinoma located at the paratesticular region similar to the one seen in his prior gastric operation specimen. It was accepted as paratesticular metastasis of gastric cancer. Staging procedures revealed widespread bone, bone marrow and hepatic metastasis.

**Result:** Metastasis of primary gastric cancer in testicular and paratesticular regions is an infrequent finding. For the differential diagnosis purposes and to discard primary testicular carcinoma orchiectomy was performed in this patient. As a result, it should be kept in mind that the metastasis of solid tumors can be seen in unexpected areas

## **P-082 PELVIC SPLENOSIS MIMICKING OVARIAN METASTASES OF BREAST CARCINOMA: A CASE REPORT**

J. Metindir\*, H. Mersin\*\*, Z. Bulut\*\*\*

\*Ankara Oncology Education and Research Hospital, Department of Gynecology

\*\*Ankara Oncology Education and Research Hospital, Department of General Surgery

\*\*\*Ankara Oncology Education and Research Hospital, Department of Pathology

**Background.** Splenosis, the heterotopic autotransplantation of splenic tissue, occurs commonly following traumatic splenic rupture and splenectomy. Implanted splenic tissue may give rise to a mass or masses in the chest, abdomen, or pelvis which the clinician must distinguish from benign or malignant tumors. **Case Report.** A 38-year-old multiparous woman presented with routine gynecological examination during breast cancer treatment. The patient's past medical history was remarkable for a splenectomy performed at age 13 following traumatic rupture after a motor vehicle accident. Pelvic examination revealed a left adnexal mass. Transvaginal ultrasonography showed 39x56x40 mm in diameter hyperechoic and hypervascular solid tumor on left ovary. Total abdominal hysterectomy and bilateral salpingo-oophorectomy was performed. The postoperative histological diagnosis was splenic tissue. **Conclusion.** Splenosis must be considered in the differential diagnosis of previously splenectomized patients who present with unexplained masses

## **P-083 PRIMARY MALT LYMPHOMA OF THE BREAST: A CASE REPORT**

K. Helvacı\*, I. Pak\*\*, O. Uysal Sonmez\*, B. Esen Akkas\*\*\*, U. Yalcintas Arslan\*, B. Budakoglu\*, I. Turker\*, B. Oksuzoglu\*, N. Zengin\*

\*Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey

\*\*Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, Pathology Department, Ankara, Turkey

\*\*\*Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, Nuclear Medicine Department, Ankara, Turkey

**Introduction:** Primary lymphoma of the breast is an uncommon disease. It is reported that most of the primary breast lymphomas are of diffuse large cell lymphoma. Primary mucosa associated lymphoid tissue (MALT) lymphoma of the breast is even rarer. In this report we describe a case of MALT lymphoma of breast presenting with a palpable mass. **Case:** A 32 year-old premenopausal woman was admitted to the hospital with a palpable mass in the right breast. Ultrasonographic examination of the right breast showed two masses around the areola. The left breast was normal. Masses were removed with local excision. Histopathological examination revealed a MALT lymphoma. Bone marrow examination and upper and lower gastrointestinal system endoscopies were normal. Fluorodeoxyglucose positron emission tomography (FDG-PET-CT) was used for staging showed hypermetabolic lesions in the left posterior cervical, left inferior jugular, and right axillary lymph node regions and in the right lumbar subcutaneous fat tissue. Rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone (R-CHOP) based chemotherapy was administered. After 3 cycles of chemotherapy, re-imaging with computed tomography was normal. After 6 cycles of chemotherapy, previous hypermetabolic lesions in the FDG-PET disappeared. **Conclusion:** Lymphoma which is a rare cause of breast mass, should be kept in mind in the differential diagnosis of masses detected in breast.

## **P-084 EFFECT OF NEEM (AZADIRACHTA INDICA) LEAF EXTRACT ON ONCOGENES EXPRESSION IN 4T1 BREAST CANCER BALB/C MICE**

F. Othman\*, G. Motaleb\*\*, S. Lam Tsuey Peng\*, A. Rahmat\*\*\*, C. Pei Pei\*\*\*\*

\*Human Anatomy Department, Faculty of Medicine and Health Sciences, University Putra Malaysia, 43400, Serdang, Selangor, Malaysia

\*\*Biology Department, Faculty of Science, Zabol University, 98615-538, Zabol, Islamic Republic of Iran

\*\*\*Nutrition and Dietetic Department, Faculty of Medicine and Health Sciences, University Putra Malaysia, 43400, Serdang, Selangor, Malaysia

\*\*\*\*Biomedical Science Department, Faculty of Medicine and Health Sciences, University Putra Malaysia, 43400, Serdang, Selangor, Malaysia

**Introduction and objectives:** Breast cancer is the commonest cause of cancer death in women worldwide and Malaysia. Azadirachta indica A. Juss, commonly known as neem, is one of the most versatile medicinal plants that have gained worldwide prominence owing to its medicinal properties; however the anticancer effect of ethanolic neem leaves extract against breast cancer has not been documented. The purpose of the present study is to investigate effect of neem leaf extract on oncogenes (c-myc, c-erbB2 and c-fos) expression in 4T1 breast cancer BALB/c mice. **Methods:** A total of 48 female BALB/c mice were divided randomly into 4 groups consisting 12 mice per group: cancer control treated with 0.5% of Tween 20 in PBS, 0.5 µg/mL tamoxifen citrate, 250 mg/kg neem leaf extract, 500 mg/kg neem leaf extract respectively named as CC, CT, C250 and C500. In situ reverse transcription polymerase chain reaction (in situ RT-PCR) was applied to evaluate suppression of oncogene expression in breast cancer tissue. **Results:** C500 group showed significantly (p<0.05) suppression of c-myc, c-erbB2 and c-fos oncogenes expression compared with CC group. **Conclusions:** C-myc, c-erbB2 and c-fos were found to be down regulated under effect of 500 mg/kg of ethanolic neem leaf extract.



### **P-085 BREAST CANCER: A CASE STUDY OF ONE HUSBAND'S EXPERIENCE**

F. Cebeci, H. Balci Yangin

Akdeniz Universitesi Antalya Saglik Yuksekokulu

Introduction and objectives; There are many published qualitative studies in the large volume of literature about breast cancer documenting themes common to the majority of participants, such as body image, sexuality, experiences of the initial diagnosis, psychological/physical impact of cancer and communication with professionals, family and friends. This study explores the meaning of the experience of breast cancer for one husband. Methods; A single client case study method was used. Data was collected through semi-structured, in-depth individual interviews and analyzed using the content analysis method. Results; Four major themes relating to the participant's experience were identified: (1) The psychological perspective: the shock of diagnosis, helplessness as to side effects of treatment, change of his wife body image, fear of recurrent of breast cancer, fear of his wife death, and emotional control (2) Need of supporting: diagnosis phase, treatment phase, and care phase (3) Coping resources: Intra-personal coping resources; understanding the value of health, and need to be strong, extra-personal coping resources; support groups for cancer patients and their family, and supportive/ complementary medicine (4) hesitation of sexual intercourse. These are discussed in relation to the participant, the research literature and nursing and medical practice. Conclusions; Highlighting the case of one husband and analyzing his experience as a single case study has produced a depth of material not previously available in other studies. The findings should be of use to staff working in medical and surgical oncology.

### **P-086 PRIMARY BRAIN T-CELL LYMPHOMA DURING PREGNANCY: A CASE REPORT**

I. Arian, A. Barut, M. Harma, M. Harma, U. Bayar, T. Duzcan

Zonguldak Karaelmas University Faculty of Medicine Department of Obstetrics and Gynecology

The incidence of Non-Hodgkin's lymphoma (NHL) during pregnancy is about 0.8 cases per 100,000 women. We describe a 33-year-old woman with primary brain T-cell NHL which was diagnosed at the 32nd week of gestation. She applied to the emergency room with the complaints of headache, vomiting and sleepiness. Her pregnancy was uneventful until admission. Her brain MRI revealed a mass at the left ventricle of brain. She was hospitalized and followed due to improvement in her complaints until pulmonary maturation of the fetus was completed. During the follow up period her systemic evaluation revealed no other pathology. She delivered a healthy baby at the 34th week of gestation by cesarean section and evacuation of the tumor was performed at the same operation. She was reoperated 12 hours after the first operation due to cerebral herniation. Despite aggressive treatment at the neurosurgical intensive care unit, her condition continued to deteriorate and she expired on the tenth postpartum day. Examination of the patient at necropsy revealed no other pathology. Lymph nodes and bone marrow were not involved.

### **P-087 A SUPRATENTORIAL PRIMITIVE NEUROECTODERMAL TUMOR IN AN ADULT: A CASE REPORT**

K. Arda\*, E. Aktas\*\*, N. Ciledag\*\*, G. Kaya\*\*

\*Ankara Oncology Education and Research Hospital Radiology Department

\*\*Ankara Oncology Education and Research Hospital Radiology Department

Introduction: Primitive neuroectodermal tumors (PNET) are the rare group of central nervous system malignancies. PNETs are 1% of tumors of primary nervous system. PNETs usually occur in children, and only sporadically in adults. We present a proven case of PNET in a 26-years-old man the tumor located in the left cerebellar hemisphere and right frontoparietal and parietal lobe. Methods : A 26 year old man admitted to our hospital with a drug resistance headache. Cranium magnetic resonance imaging of his brain were obtained. The radiologic findings of this tumor were assessed and compared with those cases reported in the medical literature. Results: Cranial MR imaging showed bilateral cerebellar, bilateral parietal multiple tumors which were hypointense on T1 weighted images, hyperintense on T2 weighted images, and with peripheric enhancement after administration of gadobenic acid. Peripheral edema was accompanied by the masses. Biopsy was performed from the right parietal mass. Histopathological diagnosis was supratentorial PNET. Conclusion: Primary cerebral neuroblastomas and pinealoblastomas are supratentorial PNETs. They are high grade malignant tumors. These are rare in adult population and are frequently seen in childhood. Their MR findings have only been reported in a few cases in English literature. Medulloblastomas are infratentorial PNETs that are the most frequent brain tumors seen in childhood. By growing into the fourth ventricle, they cause hydrocephalus due to occlusion. All of the tumors in this group carried away by cerebrospinal fluid (CSF). Computed tomography of the brain and magnetic resonance imaging are helpful for diagnosis.

### **P-088 MECHANISMS OF PHAGOCYTOSIS OF IMMUNE COMPLEXES FORMED AFTER IMMUNIZATION WITH PROTOTYPE OF ANTI-CANCER VACCINE CONTAINING MUTANT HUMAN CHORIONIC GONADOTROPIN (hCG)**

N. Chikadze\*, N. Gachechiladze\*, N. Janikashvili\*\*, N. Mitskevichi\*, N. Lomishvili\*, P. Delves\*\*\*, N. Porakishvili\*\*\*\*

\*Javakishvili Tbilisi State University, Georgia

\*\*University of Arizona, USA

\*\*\*University College London, UK

\*\*\*\*University of Westminster, UK

Human chorionic gonadotropin hCG is a tumor associated antigen overexpressed in a variety of common cancers. Clinical studies have showed that the anti-hCG response plays an important role in life-saving of patients with these tumors. Therefore, hCG $\beta$  has been considered as a candidate target protein for vaccine development aimed for active cancer immunotherapy. We have previously shown that an hCG vaccine based upon a recombinant hCG $\beta$ -chain molecule containing a single point mutation of an arginine to glutamic acid at position 68 [hCG $\beta$ (R68E)] generated rabbit antibodies that bind with high affinity to the C-terminal peptide on the native molecule. The aim of the present study was to investigate phagocytosis by human blood monocytes and neutrophils of soluble immune complexes (IC), generated by reacting native human hormone with antibodies generated in rabbits in response to the hCG $\beta$ (R68E) vaccine. FITC-labeled hCG was mixed with the sera from immunized rabbits and incubated with phagocytic cells isolated from healthy non-pregnant volunteers. The percentages of monocytes and neutrophils with internalized IC were assessed by flow cytometry. In some experiments phagocytic cells were pre-treated with blocking monoclonal antibodies to Fc $\gamma$ RI (CD64), Fc $\gamma$ RII

(CD32), FcγRIII (CD16) and the complement receptor 3 (CR3). IC containing anti-hCGβ(R68E) rabbit sera and native hCG molecules were found to be readily internalized in vitro by human monocytes and neutrophils. Internalization was mediated through FcγRI and FcγRIII in cooperation with CR3. This suggests a mechanism for the clearance of the potentially growth promoting activity of native hCG following immunization with hCGβ(R68E).

#### **P-089 MALPOSITION OF A SUBCLAVIAN CATHETER INDWELLED TO THE RIGHT SUBCLAVIAN VEIN: A RARE COMPLICATION**

B. Civelek, M. Isik, N. Yildirm, H. Odabas, S. Cihan, N. Zengin

Ankara Numune Hospital Department of Medical Oncology

Subcutaneous central venous catheters (SCVPC) are important in the Oncology practice, but also have some complications. Herein, we present a 57 years old man who was operated for rectosigmoid carcinoma and for a vascular access a SCVPC was implanted to the patient at the right side during the operation. After the operation FOLFOX-4 (folinate, oxaliplatin and fluorouracil) was planned for adjuvant therapy. After the 6 cycles of FOLFOX-4 chemotherapy the patient began to suffer from neck pain. In his routine physical examination everything seemed to be normal. A neck X-ray was ordered for the evaluation of the neck pain and there the silhouette of the catheter was seen, lying besides the vertebral column. By a Doppler ultrasonography it was proved that the catheter was in the internal jugular vein. On the angiography it was explored that the catheter took root among the right subclavian vein, the internal jugular vein and then to the orbital vein. The catheter was removed by an operation led by the cardio-vascular surgeons. In conclusion, beside frequent complications like thrombosis and infections SCVPC's have also very rare complications, as misplacement to another vein. Although there are complications of SCVPCs, they are a comfortable choice for cancer patients and we can prefer in the oncology practice. In order to avoid the venous complications the clinicians should be aware for the complications and ultrasonography guided implantation should be preferred.

#### **P-090 CASE REPORT: BENIGN MULTICYSTIC PERITONEAL MESOTHELIOMA**

N. Boran\*, Y. Karasu\*, T. Turan\*, O. Bozkurt\*\*, H. Keskin\*\*\*, S. Ozer\*, G. Tulunay\*, M. Kose\*

\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital

\*\*Pathology Division, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital

\*\*\*Department of Gynecology and Obstetrics, Ankara Ataturk Teaching and Research Hospital, Ankara

Introduction: Benign multicystic peritoneal mesothelioma (BMPM) is a rare tumor of unknown pathogenesis that occurs mainly in women in their reproductive ages. It is mostly diagnosed intraoperatively, although in this report, a BMPM case with a pelvic mass was diagnosed as a case of ovarian cancer preoperatively. Case: A 40-year-old woman was admitted with pelvic pain. Upon physical examination, a unilateral, semi-fixed pelvic mass in the right adnexial region, which could not be clearly discriminated from the uterus, was discovered to be palpated. In the pelvic ultrasound, a multiseptated mass in the right adnexial region and Douglas pouch adherent to intestinal loops was reported. Ultrasonographic findings resembled an ovarian malignancy. The CA-125 level was 178.2 IU/ml. The patient underwent a laparotomy, during which a peritoneal thin-walled multicystic pelvic mass, with grape-like cysts 0.5–1 cm in size, were observed. Frozen/sections wasn't considered to contain any malignant components. The total abdominal hysterectomy, right salpingo-oophorectomy and appendectomy were performed. The pathological diagnosis based on paraffin sections analyzed was BMPM. Discussion: BMPM is a rare tumor of unknown pathogenesis that occurs mainly in women in their reproductive ages, and can be easily misdiagnosed preoperatively as ovarian cancer. A better understanding of the pathogenesis of this disease would improve the treatment strategy for BMPM patients, and eventually, could lead to the prevention of this disease.

#### **P-091 FACTORS AFFECTING LYMPH NODE STATUS IN ENDOMETRIAL CANCER**

T. Turan\*, H. Keskin\*\*, B. Gundogdu\*, G. Tulunay\*, N. Boran\*, N. Ozgul\*, D. Bulbul\*\*\*, S. Ozer\*, M. Kose\*

\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital, Ankara

\*\*Department of Gynecology and Obstetrics, Ankara Ataturk Teaching and Research Hospital, Ankara

\*\*\*Pathology Division, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital

Introduction: Factors affecting lymph node involvement in cases of endometrial cancer were investigated. Methods: The two hundred and four patients underwent systematic lymphadenectomy performed up to the level of the renal vein with more than 15 lymph nodes removed from the pelvic region and more than 10 lymph nodes from the para-aortic region were included. Results: Lymph node involvement was detected in 22.1% of cases, with para-aortic lymph node involvement detected in 12.7% of cases, and pelvic involvement detected in 19.6% of cases. The pelvic lymph node metastasis was affected by cell type (15% in for endometrioid-type and 40% in for other cell type). Despite this difference in rates, cell type was not found to be a significant factor affecting the incidence of para-aortic lymph node metastases. The grade wasn't found to be a statistically significant factor for lymph node metastasis. The incidence of lymph node metastases was found to increase when the depth of myometrial invasion increased. Although only 1 out of 6 patients with serosal infiltration experienced pelvic lymph node metastases, 3 of these patients experienced para-aortic metastases. Patient age and the number of lymph nodes removed were not found to affect the incidence of lymph node metastases observed. Discussion: The results of this study indicate that pelvic lymph node metastases affect the cell type and depth of myometrial invasion associated with endometrial cancer.

#### **P-092 IMPORTANCE OF PATIENT AGE, CELL TYPE, MYOMETRIAL INVASION, AND NUMBER OF LYMPH NODES REMOVED FROM THE UPPER AND LOWER PARA-AORTIC REGIONS IN ENDOMETRIAL CANCER**

T. Turan\*, H. Keskin\*\*, B. Gundogdu\*, S. Ozer\*, G. Tulunay\*, N. Boran\*, N. Ozgul\*, Z. Isikdogan\*\*\*, M. Kose\*

\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital

**\*\*Department of Gynecology and Obstetrics, Ankara Atatürk Teaching and Research Hospital**

**\*\*\*Pathology Division, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital**

**Introduction:** In this study age, cell type, depth of myometrial invasion, and number of lymph nodes removed were evaluated for patients with endometrial cancer that experienced metastases in their para-aortic lymph nodes. **Methods:** The seventy-eight patients with endometrial cancer enrolled in this study. Lymph node status was evaluated during the lymphadenectomy, with the inferior mesenteric artery used as the border between the upper and lower regions of the para-aortic region. **Results:** The mean number of lymph nodes removed from this patient cohort was 70 and 18 cases involved the lymphatic. The age wasn't correlate with the pattern of metastases detected in the upper and lower regions. However, lower region lymph node involvement was found to be associated with the number of resected lymph nodes from all regions, cell type, and grade. Furthermore, the probability of metastases present in the lower para-aortic lymph nodes increased as the tumor grade increased. In contrast, metastases in the upper lymph node region were not affected by the cell type, tumor grade or number of lymph nodes removed. In addition, there was no correlation between the depth of myometrial invasion and the distribution of metastatic lymph nodes in the para-aortic region. **Discussion:** Patient age, cell type, depth of myometrial invasion, and number of lymph nodes removed were found to be factors that did not similarly affect the lymph node status of the upper and lower regions.

#### **P-093 THE EFFECT OF LOWER PARA-AORTIC LYMPH NODE STATUS ON PREDICTIONS OF UPPER PARA-AORTIC LYMPH NODE STATUS IN CASES OF ENDOMETRIAL CANCER**

**T. Turan\***, B. Gundogdu\*, H. Keskin\*\*, N. Boran\*, N. Ozgul\*, S. Ozer\*, K. Muftuoglu\*\*\*, G. Tulunay\*, M. Kose\*

**\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital**

**\*\*Department of Gynecology and Obstetrics, Ankara Atatürk Teaching and Research Hospital**

**\*\*\*Pathology Division, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital**

**Introduction:** The ability to predict the lymph node status of the upper para-aortic region based on a determination of the lymph node status for the lower para-aortic region during lymphadenectomy was analyzed in patients with endometrial cancer. **Methods:** The seventy-eight patients with endometrial cancer enrolled in this study. Lymph node status was evaluated during the lymphadenectomy, with the inferior mesenteric artery used as the border between the upper and lower regions of the para-aortic region. **Results:** The mean number of resected lymph nodes from the upper region was 14.4, and 10.1 were resected from the lower region. There was an increased likelihood for metastases to be present in the upper region when the lower region contained metastases. The predictive value associated with the presence of lower para-aortic metastases had a sensitivity of 36.4%, a specificity of 98.5%, a positive predictive value of 80% and a negative predictive value of 90.4%. **Discussion:** Our results indicate that the presence of lymph node metastases in the upper region is independent of lymph node metastases present in the lower region. Therefore, the level of a lymphadenectomy must be at the renal vein level for cases of endometrial cancer.

#### **P-094 THE IMPORTANCE OF PELVIC LYMPH NODE METASTASES IDENTIFIED IN THE UPPER AND LOWER PARA-AORTIC LYMPH NODES OF ENDOMETRIAL CANCER PATIENTS WHO UNDERWENT LYMPHADENECTOMY**

**T. Turan\***, H. Keskin\*\*, B. Gundogdu\*, S. Ozer\*, N. Boran\*, N. Ozgul\*, D. Cavusoglu\*\*\*, G. Tulunay\*, M. Kose\*

**\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital, Ankara**

**\*\*Department of Gynecology and Obstetrics, Ankara Atatürk Teaching and Research Hospital**

**\*\*\*Pathology Division, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital**

**Introduction:** The lymph node status of the pelvic region was compared with the lymph node status of the upper and lower para-aortic regions during lymphadenectomy performed for the treatment of patients with endometrial cancer. **Methods:** The seventy-eight patients with endometrial cancer enrolled in this study. Lymph node status was evaluated during the lymphadenectomy, with the inferior mesenteric artery used as the border between the upper and lower regions of the para-aortic region. The bilateral pelvic lymphadenectomy was performed to be the common iliac, presacral, external iliac, internal iliac, and obturator regions. **Results:** The mean number of lymph nodes removed was 70, with an average of 14.4 removed from the upper region and 10.1 removed from the lower region. Lymphatic involvement was 14.1% in upper region, 6.4% in lower para-aortic region and 17.9% in pelvic region. Rates of lymph node metastasis significantly increased for the upper and lower para-aortic regions when metastases were present in any pelvic region, except the internal iliac region. **Discussion:** Lymph node metastases present in pelvic regions other than the internal iliac region, correlated with metastases present in both the upper and lower para-aortic regions.

#### **P-095 THE RELATIONSHIP BETWEEN PELVIC AND PARA-AORTIC LYMPH NODE METASTASES IN ENDOMETRIAL CANCER**

**T. Turan\***, B. Gundogdu\*, **H. Keskin\*\***, G. Tulunay\*\*\*, N. Boran\*\*\*, S. Koc\*\*\*, S. Ozer\*\*\*, M. Kose\*\*\*

**\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital, Ankara**

**\*\*Department of Gynecology and Obstetrics, Ankara Atatürk Teaching and Research Hospital**

**\*\*\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital**

**Introduction:** The predictive effect of pelvic lymph node status on the lymph node status of the para-aortic region was investigated in cases of endometrial cancer. **Methods:** The two hundred and four patients underwent systematic lymphadenectomy performed up to the level of the renal vein with more than 15 lymph nodes removed from the pelvic region and more than 10 lymph nodes from the para-aortic region were included. **Results:** Para-aortic lymph node involvement was present in 12.7% of cases and pelvic involvement was detected in 19.6% of cases. The presence of pelvic lymph node metastases directly affected the involvement of the para-aortic region about. The ability to identify the presence of para-aortic lymph node metastases based on pelvic lymph node involvement (i.e. the sensitivity rate) was only 80.8%. **Discussion:** The direct relationship between the presence of para-aortic lymph node metastases and pelvic lymph node metastases was identified. A sensitivity rate of only 80.8% for the predictive value of the entire pelvic region for para-aortic lymph node metastasis events is attributed to the cases of isolated para-aortic metastases that were included in the

calculation. Therefore, it may be concluded that lymphadenectomy performed for the treatment of endometrial cancer should include the para-aortic region based on the high rate of isolated para-aortic lymph node metastases observed in this study.

#### **P-096 THE IMPORTANCE OF TUMOR GRADE AND CELL TYPE IN DETERMINING THE MYOMETRIAL INVASION IN FROZEN SECTIONS OF ENDOMETRIAL CANCER SPECIMENS**

T. Turan\*, H. Keskin\*\*, S. Ozer\*, E. Oguz\*, O. Demir\*\*\*, N. Boran\*, G. Tulunay\*, M. Kose\*

\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital, Ankara

\*\*Department of Gynecology and Obstetrics, Ankara Atatürk Teaching and Research Hospital

\*\*\*Pathology Division, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital

Introduction: In this study, the role of tumor grade and cell type in the detection of myometrial invasion in frozen sections (F/S) was investigated. Method: The medical data of 816 patients diagnosed with endometrial cancer and treated between 1993 and 2009 were analyzed. In F/S, following macroscopic examination of the resected specimens, 2-5 samples from the region of deepest myometrial invasion were frozen to -25°C, cut into 8µm sections and then stained with hematoxylin-eosin. Results: Results from the analysis of F/S produced an accuracy of 85.4% in detecting myometrial invasion. When the level of tumor grade increased, the depth of tumor invasion was better able to determine from F/S. In addition, aggressive cell types didn't consistently correlate with the rate of myometrial invasion. However, the accuracy ratio for the low-risk group (i.e. endometrioid and mucinous) was 84.9%, and 93.9% for the high-risk group (i.e. clear cell, serous type, adenosquamous, carcinosarcoma, and mixed type) (p = 0.151). Discussion: The current study found that the higher tumor grade increased the accuracy rate of detecting myometrial invasion from F/S. These results may be due to the larger number of full thickness samplings including myometrium, the examination of the tumor and adjacent areas during an investigation of myometrial invasion without affecting from the level of grade and size of the tumor, and the experience of the gynecopathologist performing the evaluation.

#### **P-097 FACTORS EFFECTING THE LYMPHOVASCULAR INVASION IN COLORECTAL CARCINOMA**

A. Aktekin\*, G. Gurleyik\*, M. Odabasi\*, O. Gunes\*, F. Aker\*\*, T. Muftuoglu\*, A. Saglam\*

\*Haydarpasa Numune Education and Research Hospital 4. General Surgery Department

\*\*Haydarpasa Numune Education and Research Hospital Pathology Department

LNM is the leading most important factor in the prognosis of colorectal carcinoma. As the previous studies determined that the LVI is one of the most important histopathologic factors that increase the rate of LNM in colorectal carcinoma. We investigated the demographic and histopathologic factors that increase the chance of having LVI. 108 patients with colorectal carcinoma except distal 2/3 of the rectum carcinomas included in this study. Distal 2/3 of the rectum carcinomas are excluded because of most of them had neoadjuvant chemotherapy. Age, sex, tumor localisation differentiation, pathologic T stage, perineural invasion, peritumoral lymphocytic invasion and the diameter of the tumor were compared with the existence of LVI. As expected LVI statistically significant increases LNM (p<0.001). Univariate analysis demonstrated pT stage (p=0.04), but in multivariate analysis peritumoral lymphocytic infiltration (p=0.023) are the factors that increase LVI. As a result of this study pT stage and peritumoral infiltration are the factors increase LVI.

#### **P-098 DEEP SOFT TISSUE LEIOMYOMA OF THE LOWER EXTREMITY**

I. Sengul\*, D. Sengul\*\*, G. Mocan\*\*\*

\*Department of General Surgery, Giresun University Faculty of Medicine, 28100 Giresun / TURKEY.

\*\*Department of Pathology, Prof. Dr. A. İlhan Özdemir State Hospital, 28100 Giresun / TURKEY.

\*\*\*Department of Pathology, Near East University Faculty of Medicine, 2820 Lefkosa (Nicosia) / TURKISH REPUBLIC OF NORTHERN CYPRUS.

Introduction: Leiomyomas are derived from smooth muscle cells, divided into three main classifications: cutaneous, vascular (angiomyoma), and deep soft tissue; and rarely reported in the lower extremity. The less common type of somatic soft tissue leiomyomas arises in the deep soft tissue of the extremities and affects the sexes equally. Case Report: A 49 years old Turkish woman presented in October 2006, with a chief complaint of a painful mass on front of the superior part of the left tibialis anterior muscle. On physical examination, a firm, sensible, and mobile mass, sized 1x1 cm palpated in the region described. The encapsulated mass was totally and marginally excised. It was extending to the deep compartments of soft tissue and not including the fascial layers. Histopathologic examination with hematoxylin and eosin revealed the characteristic appearance of leiomyoma. Clinical follow-up for 17 months revealed no evidence of local recurrence or distant metastasis. Conclusions: Leiomyomas of lower extremity occur independently from a particular age and there is no predisposition by race or sex. These tumors often found on extensor surfaces and grow slowly. Although uncommon, these tumors should be included in the differential diagnosis of any lower extremity mass. Some complaints such as rapid growth after a stable period, paroxysmal pain and intolerance to heat or cold may helpful in differential diagnosis. While surgical total excision provides both diagnosis and treatment, its recurrence is rare.

#### **P-099 AXILLARY PILONIDAL SINUS: A CASE REPORT**

I. Sengul\*, D. Sengul\*\*, G. Mocan\*\*\*

\*Department of General Surgery, Giresun University Faculty of Medicine, 28100 Giresun / TURKEY.

\*\*Department of Pathology, Prof. Dr. A. İlhan Özdemir State Hospital, 28100 Giresun / TURKEY.

\*\*\*Department of Pathology, Near East University Faculty of Medicine, 2820 Lefkosa (Nicosia) / TURKISH REPUBLIC OF NORTHERN CYPRUS.

Introduction: Pilonidal sinus is a disease which is very common, especially in men and usually located in sacrococcygeal area. However, the disease can be also seen in rare localizations such as umbilicus, forehead, scalp, clitoris, interdigital area and axilla. In the etiology of pilonidal sinus, acquired theory is accepted by most of surgeons instead of the congenital one. Case report: In the present study, we purposed to report our case of hirsute Turkish women aged 25 having axillary pilonidal sinus. After application of

total surgical excision with elliptical skin incision, histopathological evaluations confirmed the prediagnosis of axillary pilonidal sinus. The patient was lost to follow-up and neither recurrences nor distant metastasis has been detected during 36 months. Conclusions: In our opinion; surgical therapy of axillary pilonidal sinus, allows to complete resection in addition to absolute histopathological diagnoses and it may be an appropriate choice of treatment especially for the disease having one or two sinuses.

#### **P-100 UNCLASSIFIED RENAL CELL CARCINOMA (CASE REPORT)**

U. Tetikkurt\*, I. Ulusoy\*, E. Celik\*, E. Sahan\*, I. Kilicarslan\*\*, N. Erdogan\*

\*Taksim's Education and Training Hospital, Pathology Department, Istanbul/TURKEY

\*\*Istanbul Medical Faculty, Pathology Department, Istanbul/TURKEY

Unclassified renal cell carcinomas (URCC) represent a category assigned when tumors do not fit into the other renal cell carcinoma (RCC) histological subtypes, based on histopathological and/or genetic analyses. URCC is a rare variant and accounts for 3-5% of the RCC cases. They are usually aggressive tumors. We report a case of unclassified renal cell carcinoma presenting with urinary tract infection and a heterogeneous mass at the lower pole of the left kidney. Microscopically the tumor showed a mixed alveolar, trabecular solid pattern of growth with clear and eosinophilic cell areas. They were mixed or separated from each other with intense lymphoplasmacytic inflammatory infiltration or thin fibrous stroma. The cytoplasm of clear cells was abundant and foamy. The other cells had round to polygonal cells with vesicular nucleus and prominent nucleolus. Immunohistochemical studies showed that tumor cells were diffusely positive for vimentin and EMA. It was focal positive for pancytokeratin and p53. We discussed the histopathological and immunohistochemical features of this tumor which must be discriminated from high grade primary or secondary tumors.

#### **P-101 CHANGES ON NITRIC OXIDE METABOLISM OF CHRONIC SULFUR DIOXIDE EXPOSURE**

L. Afrasyap, U. Turkcu

Mugla University

Sulfur dioxide (SO<sub>2</sub>) is a common pollutant and may cause carcinogenesis on many tissues of mammals. The aim of the study was to determine the action of chronic SO<sub>2</sub> exposure value on nitric oxide metabolism of lung, gastric tissues and erythrocytes. For the aim, a total of 20 male Wistar albino rats (age: three months; weight: 250-300 g) were equally divided into two groups. 0.150 ppm SO<sub>2</sub> was given to the experimental group in an exposure chamber for 8h/day for 30 days. Control rats were exposed to filtered air for the same period. NOx and nitrite levels were measured by the spectrophotometric assays in tissues and erythrocytes of all rats. Values were analyzed by the statistical package SPSS 11.5. The data were compared by non-parametric Mann-Whitney U test. Significance was accepted at p < 0.05. Nitrite levels of lung tissues were found to be increased in experimental rats in comparison with their respective control rats. Also, both NOx and nitrite values increased significantly in erythrocytes of experimental rats. NOx and nitrite levels of gastric tissues did not change statistically between control and experimental rats. The study showed that chronic SO<sub>2</sub> exposure may lead to the oxidative stress on both lung tissue and erythrocytes.

#### **P-102 A RARE CASE OF PRIMARY RENAL LYMPHOMA: A CASE REPORT**

E. Arpacı, A. Ulas, T. Yetisyigit, F. Paksoy, S. Tokluoglu, A. Durnali, G. Celenkoclu, N. Alkis

Ankara Oncology Teaching and Research Hospital Department of Medical Oncology

Introduction: Renal involvement is frequently seen in patients with lymphoma. However, the entity primary renal lymphoma (PRL) is controversial and rare. The term PRL is applied when the disease is localized to the kidney without any sign of other organ involvement or in whom renal involvement is the presenting manifestation. We reported a case of primary renal lymphoma and discussed the treatment. Case presentation: A 44-year-old female presented with right lumbar pain, fatigue and fever. A computed tomography of the abdomen showed a retroperitoneal mass (with 10x8 cm size) from the right kidney with apparent oedema. Palliative radiotherapy was applied because of lumbar pain. An ultrasound-guided percutaneous biopsy was two times performed, but histopathological exam was non-diagnostic. Patient had undergone diagnostic laparotomy, open biopsy was performed. Histopathology showed non-Hodgkin lymphoma and immunohistochemically CD20 was positive. Chemotherapy including CHOP combined with rituximab was administered six cycles. After chemotherapy had finished PET-CT was taken that showed progression of disease. A second-line chemotherapy DHAP (dexamethasone, cytarabine, cisplatin) with rituximab was started. After six courses of R-DHAP, progression was recorded. Finally, autologous peripheral blood stem cell transplantation was planned for patient. Hence, salvage chemotherapy consisting of ICE regimen (ifosfamide, carboplatin, etoposide) was administered three courses then patient had undergone to arrangement of transplantation with BCNU plus leuceran. However, no adequate stem cell could be collected. Patient died two months after progression. Conclusion: Kidneys can be the primary site of disseminated extranodal involvement. The majority of patients have intermediate or high grade lymphomas, most of them of B-cell origin.

#### **P-103 PRIMARY PRESACRAL NEUROENDOCRINE CARCINOMA: A CASE REPORT**

K. Arda, N. Ciledag, E. Aktas

Ankara Oncology Hospital Radiology Department

Presacral or retrorectal region neuroendocrine carcinomas are extremely rare tumors. In English literature, we found 276 reported cases of presacral region tumors, only 11 of them were primary neuroendocrine carcinoma. A 57-year-old man with lower abdominal pain, and rectal tenesmi admitted to our hospital. Neurological, rectal examinations were normal. Laboratory results including hemoglobin, and ESR were in normal ranges. Radiography of the spine showed no abnormalities. Computed tomography revealed a lobulated contour soft tissue mass (11x9cm) with heterogeneous contrast enhancement, in the right presacral region adjacent to the rectosigmoid colon. Sacroiliac bone destruction, multiple lymphadenopathy is detected adjacent to the mass. Workup for metastatic disease was negative. The tru-cut biopsy was done. The tumor was initially interpreted microscopically as large cell carcinoma. Immunohistochemically the tumor cells showed expression of neuron-specific enolase, and CD-56, but CA-125, carcinoembryonic antigen, S-100 were negative. The tumor was classified as primary neuroendocrine carcinoma of the presacral region. Presacral lesions are extremely rare entities. Primary presacral region tumors can be classified as congenital, inflammatory, neurogenic, osseous, and carcinoid tumors. Plain radiography that reveal characteristic sacral and coccygeal bony abnormalities in meningocele,

chordoma or metastatic lesions, should be performed in first step. CT imaging is helpful in delineating anatomy and pathology of the retrorectal structures. The presence of calcification suggests other diagnoses, although it has rarely been described in these lesions. Albright rare, sacral neuroendocrine carcinomas should be considered in differential diagnoses of cases with back and pelvic pain and presacral mass.

#### **P-104 ESTHESIONEUROBLASTOMA: CASE REPORT**

N. Ciledag, K. Arda, E. Aktas

Ankara Oncology Hospital, Department of Radiology

Esthesioneuroblastoma (Olfactory neuroblastoma) is a rare tumor that arises from olfactory epithelium of nasal cavity that represents less than 3 % of nasal cavity tumors. By CT and MR imaging three dimensional extension of the tumor can be predicted clearly preoperatively. Treatment options are consist of surgical resection or surgical resection combined with radiotherapy or chemotherapy. A 16-year-old woman with bilateral frontal lobe recurrence of Esthesioneuroblastoma presented with bilateral visual loss and exophthalmus admitted to the hospital. MR imaging was performed. T1 weighted images showed bilateral frontal heterogeneous hypointense mass. T2 weighted images revealed bilateral hyperintense mass and surrounding brain edema. After gadolinium injection, mild enhancement is shown. After 1 month vincristine, adriamycin and cyclophosphamide (VAC) based chemotherapy control brain MR imaging is performed. More than % 25 regression in diameters of bilateral frontal masses is detected. Although MR imaging findings are not specific to Esthesioneuroblastoma, it has special value in demonstrating the extension of the tumor in three-dimensions. Esthesioneuroblastoma is a rare neuroectodermal tumor that accounts for 3% to 5% of nasal cavity neoplasms. Nearly 1000 cases of Esthesioneuroblastoma have been reported in literature. They are locally aggressive tumors with poor prognoses. Here we present a case report of Esthesioneuroblastoma presented with bilateral frontal recurrence and bilateral visual loss regression after chemotherapy.

#### **P-105 CANCER PATIENTS' SATISFACTION OF DOCTORS AND PREFERENCES ABOUT DEATH IN A UNIVERSITY HOSPITAL IN TURKEY**

R. Durusoy\*, B. Junushova\*\*, B. Karaca\*\*\*, R. Uslu\*\*\*

\*Department of Public Health, Ege University Medical School

\*\*Department of Internal Medicine, Ege University Medical School

\*\*\*Department of Oncology, Ege University Medical School

Aim: To find out expectations and satisfaction of cancer patients about their doctors, their wishes about the place and process of dying and to elucidate factors affecting them. For this cross-sectional study, a self-administered questionnaire was prepared and applied to 150 cancer patients hospitalised in Ege University Tulay Aktas Oncology Hospital between March-May and August-October 2008, with a coverage rate of 81.5%. Besides questions on sociodemographic variables, diagnosis, desire for information and expectations about dying, there were eight propositions with Likert-type scale about satisfaction. Among patients, 63.3% stated that they would like to know all the details about the course of their disease. About dying, 61.3% wished to die in the hospital, 91.4% preferred a sudden death, without pain, 20.0% did not want any intervention at the last moment, and 88.7% preferred the application of religious rules. Patients from Izmir were 2.7 times more likely to prefer dying in hospital compared to patients from other provinces ( $p<0.05$ ). The highest level of satisfaction was having a complete trust in doctors (59% replying 'always') whereas the least satisfaction issue was doctors' explanations during visits (27% replying 'always'). Overall, male patients, patients having secondary school or more education, genitourinary tract tumours had significantly higher scores of satisfaction. Patient satisfaction about the information they received on their treatment, its side effects and their disease, how understandable their doctors speak, doctors' geniality, attention and trust in their doctors were quite good in this study. Patients received less information concerning investigations.

#### **P-106 CONCERNS ASSESSMENT IN IRANIAN CANCER PATIENTS**

M. Karbasi Motlagh

Student scientific research center of Tehran University of Medical science

Introduction and Objectives: Concerns of cancer patients has a remarkable effect on quality of life in these patients. The purpose of this study is to assess concerns of cancer patients. Methods: In a cross-sectional study, we assessed concerns of 101 patients with confirmed cancer diagnosis via two questionnaires containing demographic factors and patients concerns. Results: from 101 included patients with mean age 44 and F/M ratio 3:1, the most frequent concern of patients was cancer metastasis to other parts of body (71 percent), death (66 percent), loss of energy and disabilities (52%). Concerns about the future of children were frequent in married patients. There is a significant relation between gender (women) and being concerned about body image. We found a significant relation between quality of life and being strongly concerned about death and metastasis. Conclusions: Because of close family relations in Iran, we found concerns about family and children's life after death much frequent. Patients, who had good emotional support and relation with family and friends, had less concerns about being alone in future. It seems concerns of cancer patients, because of its effect on quality of life, should be considered in psychological support sessions and also emotionally supporting of patients with family or friends, could have a great role in eliminating these concerns.

#### **P-107 IRANIAN CANCER PATIENTS' SATISFACTION FROM INTERPERSONAL AND COMMUNITY RELATIONS**

F. Fatollah Beigi, M. Karbasi Motlagh, M. Beheshtee, M. Dastan, D. Zamanian, E. Enjedany, M. Darya Afzoun, M. Nochamani

Student Scientific Research Center of Tehran University of Medical Science, Tehran, Iran.

Introduction: The aim of this study is to investigate the cancer patient's satisfaction from interpersonal and community relations.

METHODS: Patient satisfaction data was collected by a developed questionnaire to assess satisfaction from relations with family, medical treatment and care providers group, friends and other parts of community. RESULTS: Patient satisfaction is more from

relation with partner and less with public population. Patients' satisfaction from relations with medical and care provider group was associated with duration of treatment and tumor grade. Patient satisfaction from relations with family, friends and partner were associated with their adherence to treatment. Patients who were less satisfied with interpersonal relations with their family, friends and partner were less likely to feel satisfied from the relation with medical group. CONCLUSIONS: Patient's satisfaction of relation with family, friends and partner is more than medical group. Since adherence to treatment is affected by satisfaction from relationships especially with medical and care provider group, We recommend that medical and care provider persons should have better communicative and supportive relation with cancer patients to help patients have much hope and adherence to treatment..

#### **P-108 UNMET INFORMATIONAL NEEDS OF CANCER PATIENTS**

M. Nochamani\*, M. Safaeifar\*, D. Zamanian\*\*, M. Beheshtee\*, M. Dastan\*, F. Fatollah Beigi\*, M. Karbasi Motlagh\*, E. Enjedany\*, M. Darya Afzoun\*, B. Babayi\*

\*Student Scientific Research Center of Tehran University of Medical Science, Tehran, Iran.

\*\*Psycho oncology research group of Tehran University of Medical Science, Tehran, Iran

BACKGROUND: The aim of this study is to investigate informational needs of cancer patients and also unmet needs in this era regarding the source of information. Methods: 100 cancer patients with mean age 44.3 & F/M ratio 3:1 completed an information support questionnaire. Results: only 24 percent of patients were satisfied about received information and 77 percent think that received information is not enough. Most of patients think that the information they received help them in treatment progression and most of them needs personal training about their disease management. The source of data was care providers only in 65 percent of patients and family was a common source of information in patients. CONCLUSION: According to these results care provider systems in Iran are not sufficient enough to met patient's information needs. A few number of patients expressed that amount of received information is enough and this cause patients to have more concerns and consequently worse quality of life. Development is needed in the enabling role of care providers by giving more information to patients and their families.

#### **P-109 BARRIERS AND FACILITATORS IN ADHERENCE TO TREATMENT IN CANCER PATIENTS**

B. Babaei\*, H. Zamanian\*, M. Motlagh\*, E. Enjedany\*, F. Fatollah Beigi\*, S. Sadeghi\*, M. Daryaafzoun\*, M. Dastan\*, M. Beheshti\*, N. Kiaee\*

\*Psycho-oncology research group, University of Tehran, Tehran, Iran

\*\*Psycho-oncology research group, University of Tehran, Tehran, Iran and Student scientific research center of Tehran University of Medical Science, Tehran, Iran

Background: Adherence to treatment is the main issue in treatment outcome and recovery of cancer patients. The aim of this study is to investigate some barriers and facilitators of adherence to treatment in cancer patients. Method: 97 cancer patients were included in our study. Data was collected with investigator-designed questionnaires for adherence, barriers' and facilitators' factors. Chi square and correlation analyses were used to investigate the relations between variables. Result: some facilitators considered to have effect on patients' adherence were: doctor and family recommendations, hope to recovery, cue to action (successful recovery in other patients), and fear from metastasis. Some barriers were anhedonia, hopeless to treatment, costs of treatment, complications of treatment, family inconvenience and some other negative thoughts. The most mentioned facilitator was hope to recovery (75 percent) and the most mentioned barrier was cost of treatment. Conclusion: The result suggests although physicians' recommendations, favorable outcomes, and familiar supports positively related to adherence, hopelessness, costs, treatment equipments, and treatment side effects negatively related to adherence. It seems high adherence to treatment could be as a result of hope increasing trend in Iranian cancer patients because of treatment advances in Iran and also successful coping strategies in patients.

#### **P-110 COPING SCALES IN CANCER PATIENTS: A SYSTEMATIC REVIEW OF INSTRUMENTS**

E. Enjedany, M. Daryaafzoun, H. Zamanian, F. Meybodi, B. Babaei, N. Kiaee, M. Hamzelouiyan, M. Karbasi Motlagh  
Psycho-oncology research group, University of Tehran, Tehran, Iran and 2) Student scientific research center of Tehran University of Medical Science, Tehran, Iran

PURPOSE: Assessment of coping strategies is becoming more common in cancer care and treatment during last decade. The aim of this review is to identify instruments used to assess coping in cancer patients, emphasizing cancer specific coping instruments.

METHOD: A systematic review of MEDLINE and EMBASE database from 1968 to 2010 was performed by a sensitive search strategy using set of keywords (such as coping, cancer, tumor, carcinoma, neoplasm). 540 articles were selected and 10% of them met inclusion criteria in this review. Evaluation criteria of these articles were validity, reliability, and utility. RESULT: Reviewing included articles we can divide coping questionnaires to two categories: 1) generic questionnaires. 2) cancer specific questionnaires. Most of articles used generic coping questionnaires. Among these articles 3 instruments were especially developed for cancer patients: Ways of Coping-Cancer Version (WOC-CA), 21-item Cancer Coping Questionnaire (CCQ), and Coping with Cancer Instrument. All of them have 5 dimensions and acceptable reliability and validity, but only the interpersonal scale of CCQ doesn't have adequate validity. CONCLUSION: With comprehensive search strategies, we found that most of the articles had used generic coping instruments. However these instruments are not enough qualified to assess coping in chronic diseases such as cancer. We suggest that some cancer specific coping questionnaires should be developed or validated for better assessment of coping in these patients. Comparing the mentioned three instruments, it seems because WOC-CA develops from valid questionnaire its dimensions better describe cancer patients' coping styles.

#### **P-111 THE EFFECT OF SPIRITUALITY AND RELIGIOSITY ON MENTAL HEALTH AND QUALITY OF LIFE IN CANCER PATIENTS**

M. Daryaafzoun, F. Aghaie Meybodi, H. Zamanian, E. Enjedany, M. Hamzelouiyan, B. Babaei, M. Karbasi Motlagh, N. Kiaee  
Psycho-oncology research group, University of Tehran, Tehran, Iran and Student scientific research center of Tehran University of Medical Science, Tehran, Iran

PURPOSE: It has been shown that cancer patients sometimes use their spiritual and religious beliefs to cope with cancer and their

problems. The aim of this study is to investigate the role of spirituality and religion in patient's mental health and their quality of life. METHOD: 101 consecutive cancer patients were included in this study, mean age: 44 and female/male ratio was 3:1. Patients completed 3 validated questionnaires to assess quality of life, spirituality, mental health. RESULTS: most of patients (98%) considered religion to be somewhat important. 78.2 percent of patients reported that their spiritual activities were increased after their diagnosis. 97 percent of all, believed that if God want, they will survive and about 75 percent thought that their disease is a kind of God exam for them to be closer to God. With statistical analysis, spirituality was significantly associated with patient's quality of life (p-value=0.02), and mental health (p-value=0.04) CONCLUSION: many cancer patients use spirituality for coping with their disease. Our results emphasize and confirm on the role of spirituality and religious belief on enhancing quality of life and mental health improvement.

## Prevention

### P-112 DOES INBREEDING LEAD TO DECREASED INCIDENCE OF BREAST CANCER?

A. Bener\*, H. El-Ayoubi\*, A. Ali\*\*, A. Al-Kubaisi\*\*, H. Al-Sulaiti\*\*, L. Lotfi Chouchane\*\*

\*Hamad Medical Corporation & Weill Cornell Medical College

\*\*Weill Cornell Medical College

Aim: To determine the possible effect of inbreeding on the risk of breast cancer in a population with a high rate of consanguinity and find the associated risk-modifying factors. Subjects and Methods: The study included 167 Qatari and Arab expatriates women with breast cancer and 341 age and ethnicity matched control women. A questionnaire that included the socio-demographic information, type of consanguinity, medical history, life style habits, dietary intake and tumor grade was designed to collect the information of cases and controls. Results: The study revealed that the rate of parental consanguinity was lower in breast cancer patients (24%) than in controls (32.3%) (p=0.054). Female controls were slightly younger (46.5±11.9) than breast cancer patients (48.4±10.7). The proportion of breast cancer was significantly lower in Qatari women (34.1%) compared to other Arab women (65.9%) (p=0.034). Overweight (46.7%) and obesity (32.9%) was significantly higher in female breast cancer patients compared to controls (p=0.028). Overall, the mean coefficient of inbreeding was lower in breast cancer patients (0.014) than in controls (0.018) (p=0.125). Family history of breast cancer was significantly more often in breast cancer patients (14.4%) than in controls (6.2%) (p=0.002). However, the family history of breast cancer was more often positive in cases of non-consanguineous parents (15.7%) than cases of consanguineous parents (10.0%). The present study revealed the lack of association between of breast cancer and the parental consanguinity in Arab women residing in Qatar.

### P-113 STUDY OF CYCLIN B1, APOPTOSIS AND B-CELL CLONALITY IN HELICOBACTER PYLORI ASSOCIATED GASTRIC MALT AND MALT LYMPHOMA

A. Fahmy\*, S. Youssef\*\*, A. Abdelmaksoud\*\*

\*Pathology Department, National Cancer Institute (NCI), Cairo University, Egypt

\*\*Pathology Department, Benha Faculty of medicine, Zagazig University, Egypt

Gastric mucosa associated lymphoid tissue (MALT) lymphoma may arise from MALT acquired secondary to long-standing Helicobacter pylori infection. Several cell cycle regulatory genes play a role in modulation of cellular death, proliferation and transformation during evolution of H. pylori associated gastritis to MALT lymphoma. This study aimed at recognition of H. pylori gastritis patients at risk to develop MALT lymphoma by studying the role of cyclin B1 and apoptosis in the transformation process and B-cell clonality in distinguishing reactive from malignant infiltrate. This study included 80 patients (35 chronic active gastritis (CAG), 12 gastric MALT and 33 gastric MALT lymphoma). H. pylori positivity was reported in all cases of CAG and MALT and in 84.5% of lymphomas mainly of low grade. Immunohistochemistry, TUNEL and PCR were used to determine cyclin B1 expression, apoptotic index (AI) and B-cell clonality. Lymphoma cases showed a significant increase in cyclin B1 labeling index (LI) compared to CAG and MALT (p<0.01) with increased incidence in deep and high grade tumors and H. pylori negative cases. AI was 0.37% in CAG, 1.26% in MALT and 0.9% in lymphomas with a significant increase in high grade tumors. PCR monoclonal band was reported in 71.4% of lymphomas. It was concluded that high labeling score of cyclin B1 in conjunction with low LI of apoptosis in H. pylori associated gastric MALT may help in identifying the population primed to develop MALT lymphoma and the presence of a single, clear PCR band strongly supports the presence of a malignant clone.

### P-114 A ROLE OF FOOD AND ENVIRONMENTAL FACTORS IN REDUCTION OF CANCER

A. Jokar\*, Z. Mohebi\*, Z. Rastegar\*\*, M. Tavangarrad\*\*\*

\*Iran- Shiraz University of Medical Sciences

\*\*Faculty of Nursing

\*\*\*Midwifery

Introduction The human fetus, child, and adult may experience adverse health outcomes from parental or childhood exposures to environmental toxicants. The fetus, infant and Childs are especially vulnerable to toxicants that disrupt developmental processes during relatively narrow time windows. Urban population are high-risk groups for adverse birth outcome and also more likely to be exposed to environmental contaminations. Our aim with this article is to review kind of environmental contaminations and health effective. Environmental contaminations Including environmental tobacco smoke (ETS) (preterm birth), maternal active smoking (delayed conception, preterm birth, fetal growth deficit with prevalence 35% to 80% and sudden infant death syndrome 20%), benzopyrene, other ambient polycyclic aromatic hydrocarbons (global PAHs), methyl mercury (delayed developmental milestones and cognitive, motor, auditory, and visual deficits), polychlorinated aromatic biphenyls (PCBs) (neonatal tooth abnormalities, cognitive and motor deficits, glue ear prevalence 35%), dioxins and related polyhalogenated aromatic hydrocarbons (PHAHs), certain pesticides, aeroallergens, ambient air toxicants (especially particulate matter and ozone), chlorination disinfection by-products, sunlight, power frequency magnetic fields, radiofrequency (RF) radiation residential proximity to hazardous waste disposal site, and solvents, and



residential pesticides. The adverse health effects linked to such exposures include fetal death. Birth defects, being small for gestational age (SGA), preterm labor, clinically overt cognitive, neurologic, behavioral abnormalities, subtle neuropsychological deficits, childhood cancer, asthma, other respiratory disease and acute poisoning. Some environmental toxicants, notably lead, ionizing radiation, ETS, and certain ambient air toxicants, produce adverse health effects at relatively low exposure levels during fetal or child developmental time windows. Conclusion Where Relationships between child health and environmental exposures are discussed, there is a need for: • Policies and programs to minimize population exposures • Population-based biomonitoring to track exposure levels in blood, urine and other samples • Targeted research and policy evidence • Great need for population-based, multidisciplinary and collaborative research

## **P-115 MAJOR DIETARY FACTORS AND RISK OF PROSTATE CANCER AMONG IRANIAN MALE POPULATION**

S. Salem, A. Mehraei, M. Rezaeidanesh, G. Pourmand

Urology Research Center, Tehran University of Medical Sciences

**INTRODUCTION:** The dietary differences between diverse geographic regions and various racial/ethnic populations provide an interesting possible explanation for differences in the incidence, morbidity and mortality of prostate cancer (PC). There are many studies of diet and PC in Western populations, but there are few epidemiological studies about Asian countries, especially Iran. We evaluated the relation between different dietary item consumption and PC risk in Iran. **METHODS:** A prospective hospital-based multicentric case-control study was conducted on 194 cases of incident, clinicopathologically confirmed prostate cancer, and 317 controls admitted to the same network of hospitals without any malignant disease. Odds ratios (OR) and corresponding 95% confidence intervals (CIs) were estimated using conditional logistic regression models. Dietary intake was assessed through a validated food frequency questionnaire. **RESULTS:** Comparing the highest with the lowest tertile, a significant trend of increasing risk with more frequent intake was found for dietary fat (OR: 2.03, 95% CI: 1.08-4.10;  $P=0.04$ ), whereas inverse association was observed for tomato/tomato products (OR: 0.31, 95% CI: 0.16-0.60;  $P=0.001$ ). A nonsignificant increase in PC risk was revealed for dietary red meat (OR: 1.19, 95% CI: 0.61-2.28). Also, weakly significant reduction in risk related to garlic consumption was observed (OR: 0.56, 95% CI: 0.31-1.01;  $P=0.05$ ). **CONCLUSION:** Our study supports the hypothesis that total fat may increase risk of PC and tomatoes/tomato products and garlic may have protective effects against PC in Iranian men. Hence, higher intake of dietary red tomato and garlic and lower consumption of dietary fat are encouraged.

## **P-116 EFFECTS OF SERUM SELENIUM CONCENTRATION ON RISK OF PROSTATE CANCER**

S. Salem, A. Mehraei, K. Moradi, G. Pourmand

Urology Research Center, Tehran University of Medical Sciences

**Introduction:** Selenium is a potential chemo-preventive agent against prostate cancer. This study sought to evaluate and compare the serum selenium level in men with newly diagnosed prostate cancer and non-cancerous patients. **Methods:** This prospective case-control study was performed on patients referred to our center; including 62 men with clinicopathologically confirmed diagnosis of prostate cancer (case group) and 68 men with no detectable prostate cancer (normal digital rectal examination and prostate-specific antigen (PSA) level) or any other malignant disease (control group). Using Zeeman graphite furnace atomic absorption spectrometer, the serum selenium level was assessed and compared between groups. Possible correlations between the selenium concentration and participants' characteristics, and prostate cancer were analyzed. **Results:** The mean age of the cases and controls was 70 and 68.1 years, respectively. The mean serum selenium level in the case and control groups were  $66.3 \pm 17.7$   $\mu\text{g/L}$  and  $77.5 \pm 22.5$   $\mu\text{g/L}$ , respectively ( $p=0.002$ ). Serum selenium was inversely associated with the risk of prostate cancer. After adjustment for age, body mass index (BMI) and smoking, the odds ratio (OR) was 0.48 and 95% confidence intervals (95% CI: 0.21-1.10) comparing the second with the lowest tertile ( $\geq 67.7$   $\mu\text{g/L}$ ). The adjusted OR for the highest tertile ( $\geq 89.3$   $\mu\text{g/L}$ ) was 0.016 (95% CI: 0.06-0.47,  $P$ -trend=0.001). No correlation was observed between serum selenium level and age, BMI or PSA level. **Conclusion:** Serum selenium levels in prostate cancer cases were lower than in controls, which support the hypothesis that selenium may protect against prostate cancer. Furthermore, the increased consumption of available selenium-rich foods is encouraged.

## **P-117 PRIOR LUNG DISEASE AND LUNG CANCER RISK IN AN OCCUPATIONAL-BASED COHORT IN YUNNAN, CHINA**

Y. Jiang\*, Y. Fan\*\*, P. Hu\*\*\*, S. Yao\*\*\*\*, Y. Qiao\*

\*Department of Cancer Epidemiology, Cancer Institute, Chinese Academy of Medical Sciences, Beijing, People's Republic of China

\*\*Tianjin lung cancer institute, Tianjin Medical University General Hospital, Tianjin, People's Republic of China

\*\*\*Divisions of Cancer Prevention, National Cancer Institute/National Institute of Health, Bethesda, MD., USA

\*\*\*\*Department of Epidemiology, Kunming Medical College, Kunming, Yunnan Province, People's Republic of China

**Introduction and objectives:** Lung cancer is currently the leading cause of cancer death worldwide. Tobacco smoking, environment tobacco smoke, residential radon and occupational exposures have been reported to increase the risk of lung cancer. The association between lung cancer risk and prior lung disease also has been concerned. A one-armed prospective dynamic cohort study among radon and/or arsenic exposed tin miners has been established among Yunnan Tin miners since 1992, which mainly focus on risk factors and biomarker exploring. The collected extensive information on the history of prior lung disease provides opportunities for further research. **Methods:** Cox proportional hazard model was used to examine the relationship between prior lung diseases and lung cancer risk with adjusting for confounding factors. **Results:** Results from univariate analysis showed that prior asthma, chronic bronchitis, silicosis were potential risk factors of lung cancer, while tuberculosis was not significantly related to the risk of lung cancer. After adjustment for other potential confounding factors, only prior chronic bronchitis increased lung cancer risk (HR 1.515, 95% CI: 1.255-1.829). An increased risk of developing squamous cell carcinoma from prior chronic bronchitis (HR: 1.591, 95% CI: 1.200-2.110) and small cell carcinoma from asthma (HR: 2.646, 95% CI: 1.428-4.902) was also observed. **Conclusions:** Additional prospective studies targeting on the participants with less confounding factors would help to confirm the current status, and further investigation on the causal mechanisms is also needed to better understand the basis for an association between prior lung cancer disease and lung cancer risk.

#### **P-118 SIGNIFICANCE OF ACKNOWLEDGED RISK FACTORS IN BREAST CANCER CASES IN INDIA**

N. More, K. Dustakar, M. Parab, R. Dalvi, S. Maudgal

Cancer Patients Aid Association

CPAA works towards the early detection of cancer at curable stages. This is especially important in breast cancer where survival rates remain abysmally low. CPAA has conducted camps and clinics since 1987, over 200,000 healthy individuals have been screened. Since 2004, 32 women have been detected with breast cancer through this intervention. Medicine recognizes several risk factors-age, family history, diet of red meat, use of tobacco, early onset of menarche, late menopause, late marriage, advanced age at first pregnancy, low number of children, having medical termination of pregnancies, absence of lactation and obesity. Data collected at the time of registration of detected women was analyzed to determine whether these risk factors are indeed significant. Of 32 patients under study, 50% were below the age of 50 years. 75% were non vegetarian, 4 had a first degree relative suffering from cancer of whom 2 had breast cancer, 19% chewed tobacco, the average age at menarche and menopause was 14 and 47 respectively, but 16 women had not attained menopause. The weight ranged from 40-87kgs, the average weight being 66.3kgs, well above the national average of 45kgs. Average age at marriage was 22.5+ 3.5 years, first pregnancy at 23.7+8 years, average number of 3 children who had been breastfed for an average of 1 year. 3 women did not have children. 50% of the women had 1-3 MTPs. The study showed the significance of accepted risk factors in raising the risk of contracting breast cancer in the Indian context.

#### **P-119 THE ATTITUDES AND KNOWLEDGE OF THE HUMAN PAPILLOMAVIRUS INFECTION AND VACCINE, WITHIN A SELECT GROUP OF FEMALES IN BARTIN, TURKEY**

H. Kendirli, S. Acar, N. Guni, A. Karatas, N. Oz Keceli

Bartın Cancer Early Diagnosis Screening and Education Center (Bartın-KETEM)

Objective: The human papillomavirus (HPV) is one of the most common sexually transmitted infectious diseases in the world and it is associated with cervical cancer. The HPV vaccine represents a viable prevention strategy against cervical cancer. There has been no previous research in Bartın, into either HPV or the vaccine prior to this study. Our objective was to assess the related levels of knowledge and attitudes held within a volunteer group of women from this town. Material and Methods: A self-created questionnaire was presented to 600 females investigating their personal and social demographics and their associated knowledge/opinion of the HPV infection and its vaccine. Results: Among the 600 participants, 386 (64.3%) claimed they had already heard of the HPV infection. 368 (61.3%) had knowledge of the HPV vaccine. Within the 368 individuals who had already heard about the vaccine, 279 (75.8%) of them requested more information regarding the details of the vaccine, before they would decide if to receive it. 18 (4.5%) indicated that they would have the vaccine if their insurance covered it and 5 (1.3%) declared that they would get vaccinated immediately regardless. Among the women interviewed, 65 (17.6%) reported they would accept HPV vaccination for their daughters, and 10 (2.7%) for their sons. Conclusion: This study has confirmed the need for further education about the HPV infection and vaccination for it in Bartın.

#### **P-120 CANCER PREVENTION**

B. Demirkan\*, Z. Unluturk\*\*, F. Ozkan\*\*, M. Cemek\*\*, B. Oner\*\*, U. Balataci\*\*, E. Ozaslan\*\*, B. Unal\*\*\*, B. Musal\*\*\*\*

\*Dokuz Eylul University School of Medicine, Department of Internal Medicine, Division of Medical Oncology, Izmir, TURKEY

\*\*Dokuz Eylul University School of Medicine, Term II Students, Izmir, TURKEY

\*\*\*Dokuz Eylul University School of Medicine, Department of Public Health, Izmir, TURKEY

\*\*\*\*Dokuz Eylul University School of Medicine, Department of Medical Education, Izmir, TURKEY

Introduction: Despite the current treatment modalities, cancer remains as a serious and non-curable disease, but it is preventable. Smoking is the cause of 30% of cancer deaths. While 5-25% and 15-25% of cancers are related with heredity and infections respectively; inadequate and poor diet, physical inactivity and obesity account for 30% of cancer cases. Poor knowledge and unawareness are the basic barriers against prevention. As a part of Health Education Project of Department of Medical Education, we aimed to educate the adolescents about the preventive measures of the three different cancer types (breast, cervix and colorectal cancers) included in national screening programmes in Turkey. Material and Methods: During a year (2008-2009), Term II medical school students were trained on prevention of breast, cervix and colorectal cancers. At the end of the training programme, they educated a total 75 students from three different 10th classes in a high school located at Balcova in Izmir. Before the educational presentation, a questionnaire including 10 questions about cancer prevention was performed. At the end of presentation, printed forms of educational materials were distributed and oral as well as written evaluations of the presentations were obtained. Results and Conclusion: Approximately 50% of students had a family history of cancer. The effectiveness of the presentations was scored as 5 (very well), 4 (well) and 3 (medium) by 85%, 10% and 5% of the students respectively. Education of the adolescents against cancer can be an effective way of prevention.

#### **P-121 BECLIN-1 EXPRESSION, AN AUTOPHAGY-RELATED PROTEIN, IN COLORECTAL CANCER PATIENTS**

Z. Altun\*, S. Genc\*\*, Z. Cavdar\*\*\*, G. Oktay\*\*\*\*, C. Terzi\*\*\*\*\*, M. Fuzun\*\*\*\*\*, S. Sarioglu\*\*\*\*\*, U. Yilmaz\*

\*Dokuz Eylul University, Institute of Oncology, Izmir, Turkey

\*\*Dokuz Eylul University, Institute of Health, Izmir, Turkey

\*\*\*Dokuz Eylul University, School of Medicine, Research Laboratory, Izmir, Turkey

\*\*\*\*Dokuz Eylul University, School of Medicine, Department of Biochemistry, Izmir, Turkey

\*\*\*\*\*Dokuz Eylul University, School of Medicine, Department of Surgery, Izmir, Turkey

\*\*\*\*\*Dokuz Eylul University, School of Medicine, Department of Surgery, Izmir, Turkey

\*\*\*\*\*Dokuz Eylul University, School of Medicine, Department of Pathology, Izmir, Turkey

Colon cancer is the third common cancer in the world. Autophagy is a lysosomal degradation of cellular proteins via autophagic vacuols. Autophagy has a major role in pathogenesis of many diseases such as development, long life and cancer. It is confirmed that it has some effects both on tumour development stimulation. The aim of this study was to determine the autophagy, related

protein beclin-1, and correlation with clinicopathologic characteristics of colorectal cancer. Colorectal cancer patient tissue samples were collected from Dokuz Eylul University Medical Faculty Surgery Department. Beclin-1 protein determined with western blotting detection method, in order to indicate of the existence of autophagy in colon cancer tissue samples. Beclin-1 expression and relationship of clinicopathologic characteristics, including invasion, metastasis and stage, were investigated. Tumor and corresponding normal tissue specimens were obtained from colorectal carcinoma patients (n = 36). Beclin-1 protein expression was determined mostly in both tumour and conjugate normal tissue samples of human colorectal cancer patients. In both tumor and normal tissue samples of three patients showed no expression of beclin-1. Beclin-1 protein expression was determined in only two patient's tumor tissues and four of normal tissue samples. However, any significant correlation was not found among the beclin-1 protein expression and clinicopathologic characteristics of the colorectal cancer patients. The results of this study suggested that autophagy is involved in colorectal carcinogenesis. The largest studies could be beneficial for determination of autophagy and related clinicopathologic characteristics of colorectal cancer

## **P-122 MEDICAL ONCOLOGIST IN TURKEY SHOULD BE AWARE OF NATIONAL CANCER CONTROL AND SCREENING PROGRAMME**

H. Coskun\*, D. Coskun\*\*, S. Durak\*\*, S. Aydin\*\*, M. Yildiz\*\*\*

\*Akdeniz University Dept of Medical Oncology, Antalya

\*\*Antalya KETEM

\*\*\*Antalya Research and Education Hospital Dept of Medical Oncology

Cancer is one of the most common causes of death. Cancer is preventable or treatable disease. Cancer screening is available for a few cancers. Cancer screening and national cancer control programs have generalized among oncology specialist. KETEM is compressive name for cancer early detection, screening and education center. We tested interesting about cancer control and screening in Turkish medical oncologist. We carry out a questionnaire about Turkish screening organization by e-mail. We received 64 completed forms from 17 cities. Median age is 40 years with range 28 to 62. Male were 45 of 64. They have got median 7 years (1-30) experience in medical oncology. Four physicians (6.3%) did not hear KETEM. However 84.4% of them informed about localized any KETEM in their city, only 20.4% oncologist had cooperated to KETEM for any effort. 79.7 percent used any one screening test in last year; majority of is mammography. They indicated high level of knowledge about screening with median 6 score (range 2-7) and average point (median 4, range 1-7) about national standard for cancer screening on visual score board from 1 to 7, called uninformed 1 and well informed 7. They indicated 4 point (1-7) about their ability for population based screening in their workplace on a visual board from 1 to 7, 1 is insufficient, 7 sufficient. Function of KETEM is known by Turkish oncologist, level of knowledge cancer screening is sufficient but discriminations of based population or opportunistic screening and knowledge about national standard are not adequate.

## **P-123 HEPATITIS B AND C INFECTION AND THE RISK OF CHOLANGIOCARCINOMA: A META-ANALYSIS**

M. Tanaka

Osaka Medical Center for Cancer and Cardiovascular Diseases

**BACKGROUND:** Several studies have been published that indicate hepatitis B and C virus infection (HBV and HCV, respectively) may be a cause of intrahepatic cholangiocarcinoma (ICC). We quantitatively assessed the relation between the infection and the risk of ICC in a meta-analysis of epidemiologic studies. **METHODS:** Relevant studies were identified by searching MEDLINE (from 1992 through 2008) and reference lists of retrieved articles. The inclusion criteria were cohort or case-control studies that reported relative risk estimates of ICC development with 95% confidence intervals (CIs) by the presence of HBs antigen and/or HCV antibody. Study-specific RRs were pooled using a random-effects model. Tests for heterogeneity and publication bias assessment were also performed. **RESULTS:** For HBV infection, seven case-control studies, involving 1,759 cases and 198,213 controls, met the inclusion criteria. All studies except one observed an association between the infection and risk of ICC, and in 2 studies the association was statistically significant. For HCV infection, eight case-control studies, involving 2,294 cases and 198,213 controls were included; 6 studies observed the association, and in 5 studies the association was statistically significant. The overall summary adjusted-odds ratios were 2.65 (95%CI:1.15-6.07) and 4.12 (95%CI:1.86-6.07) for HBV and HCV infection, respectively, with significant heterogeneity between studies. We found no evidence of publication bias for the two study groups (p= 0.5, 0.8). **CONCLUSIONS:** Findings from this meta-analysis suggest that both HBV and HCV infection may a a cause of ICC. Ideally, these findings are to be verified by large cohort studies.

## **P-124 EFFECTS OF AN ENDOCRINE DISRUPTING CHEMICAL, BISPHENOL A ON BREAST CANCER AND ITS RISK FACTORS**

M. Yang\*, D. Kang\*\*, K. Yoo\*\*

\*Sookmyung Women's University

\*\*Seoul National University

Korea was previously among the countries with the lowest breast cancer incidence in the world. However, the incidence of breast cancer in Korea has been increasing for last 2 decades (1983-2005), and now, breast cancer is ranked the leading cause of cancer in Korean women. Along with other endocrine disrupting chemicals (EDCs), bisphenol A (BPA) has been suspected as potential risk factor for breast cancer. We studied potential associations between BPA exposure and breast cancer risks in Korean women, by performing biomonitoring of BPA among breast cancer-cases and controls (N=167), with blood samples collected between 1994-1997 and kept over 10 years in a freezer under well controlled conditions. The blood BPA levels determined by HPLC/FLD, ranged between LOD (0.012 µg/L) and 13.87 µg/L (mean 1.71 µg/L, median, 0.03 µg/L). There were no significant differences in BPA blood levels between the cases and the controls. Based on this analysis, BPA exposure is unlikely to present a critical risk for breast cancer in Korean women, although limitations of this approach that covers only exposure at the time of diagnosis have to be taken into account.

### **P-125 BREAST CANCER RISK REDUCTION BY PARITY AND BREASTFEEDING, ISLAMIC PERSPECTIVE;**

A. Akbari, A. Majd Jabari, A. Akhavan Tabib, A. Hadi, F. Esfahani, M. Akbari

Cancer Research Center, Shahid Beheshti University of Medical Sciences

**Introduction:** In some verses in Holy Quran such as 233 surat Al-Baghare, 15 Al-Aghaf and 14 Lughman breastfeeding and parity are recommended to parents and expected their children to be accountable to parents, particularly to mother because of the toleration of pregnancy period and duration of breastfeeding that are important for infant development. The importance of parity and breastfeeding for neonate is well known, so we carry out a study to show the effect of parity and breastfeeding on the health status of Iranian mothers in particular reduction the risk of breast cancer. **Methods:** This is a case-control study with 801 subjects. Cases were 376 patients who were diagnosed between 2001- 2006 and controls were 425 people. Groups were matched by demographic variants and socioeconomic status; the data inserted into SPSS -16 soft ware, logistic regression models were used to examine the relationship of breast cancer risk with reproductive factors. Odds ratio and 95% confidence intervals were computed as measures of association from the logistic models. All p-values reported are two-sided. **Results:** Cases were more likely than controls to be non pregnant, the parous women had a lower risk than nulliparous women, the number of children reduced the risk of breast cancer, but it was statistically significant only for 1-3 parities. Comparing ever vs. never breastfeeding showed that it is significantly protective against breast cancer. The trend of breastfeeding was significantly protective against breast cancer; the mean of breastfeeding for cases and controls was significant regarding reduction risk of breast cancer. **Discussion:** The parity and breastfeeding are effective in reduction of breast cancer risk. All of these results, confirmed the recommendations of Holly Quran and the messengers of Allah that parity (particularly one to three) and breastfeeding (twenty four months for each child and not less than 18 months) has the best protective effect against breast cancer.

### **P-126 CANCER PREVENTIVE EFFECTS OF ELM TREE EXTRACTS**

T. Shim\*, T. Kim\*, S. Son\*, H. Lee\*, I. Hwang\*\*, J. Ban\*\*\*, H. Jeong\*\*, J. Hong\*\*\*, T. Ha\*\*\*\*, D. Kim\*

\*College of Veterinary Medicine, Chungbuk National University, Cheongju, Korea

\*\*College of Agriculture, Life & Environment Sciences, Chungbuk National University, Cheongju, Korea

\*\*\*College of Pharmacy, Chungbuk National University, Cheongju, Korea

\*\*\*\*Korea Food Research Institute, Sungnam 463-746, Korea

Lung cancer is now the leading cause of cancer death in both men and women in the worldwide, included Korea. Lung cancer chemopreventive effects of extract of elm tree were investigated. In the present study, it was designed to investigate the chemopreventive effects of ethanol extract of elm tree root (ER) on lung tumorigenesis by benzo[a]pyrene (B[a]P)-induced in A/J mice. Newborn mice were treated with ER in the diet during 10 weeks, a single subcutaneous dose of B[a]P (500 µg/M<sub>2</sub>) in 20 µl olive oil. The total number of tumor in the B[a]P + ER treated groups were significantly decreased compared with those of B[a]P alone group in A/J mice (Reduced multiplicity rate: male: 36%, female 31%). The ER inhibited cell proliferation and apoptosis related proteins through the down-modulation in cyclin D1 and p-Akt (ser473) expressions, during B[a]P induced lung cancer in mice by Western blot analysis. For the assessment of in vitro, it was designed to investigate the effects of extract of the elm tree on the cell proliferation and induced apoptosis in human lung cancer cell lines (A549 and NCI-H460). Elm tree extract inhibited the proliferation of cells and induced apoptotic cell death in a dose-dependent manner. It was found that elm tree extract treatment also resulted in activation of P21waf1/Cip1 and decreased in the protein expression of cyclin D1. These results suggested that extract of the elm tree root bark may have a possible potential chemopreventive agent to suppress lung carcinogenesis.

### **P-127 CHEMOPREVENTIVE EFFECT OF α-VINIFERIN IN AZOXYMETHANE-INDUCED COLON TUMORIGENESIS OF MICE AND COLON CANCER CELLS**

S. Shin\*, D. Kwak\*, H. Jo\*, J. Hue\*, S. Nam\*, B. Lee\*, Y. Choo\*\*, B. Ahn\*

\*College of Veterinary Medicine and Research, Institute of Veterinary Medicine, Chungbuk National University, Cheongju 361-763, Korea

\*\*Department of Biological Science, college of Natural Sciences, Wonkwang University, Iksan, 570-749, Korea

α-Viniferin, a trimer of resveratrol, is known to show an anti-inflammatory effect via the inhibition of cyclooxygenase-2 (COX-2) and inducible nitric oxide synthase (iNOS). It is well known that upregulated COX-2 and/or iNOS are expressed in colon cancer in human and rodents and azoxymethane-induced aberrant crypt foci (ACF) in rodents. In this study, chemopreventive effects of α-viniferin were assessed on azoxymethane (AOM)-induced ACF and experimental colon cancer in male ICR mice. For ACF mice model, mice were given intraperitoneal (i.p.) injection with 10 mg/kg AOM once a week for 3 weeks. Mice were administrated simultaneously with 0.05 and 0.1 mg α-viniferin per mouse for 5 weeks. For colitis-related colon cancer model, mice were given single i.p. injection of AOM and exposed with 2% dextran sodium sulfate (DSS) in drinking water. α-viniferin with 0.05 and 0.1 mg/mouse was administered for 28 weeks. α-viniferin treatment induced significant decreases of ACF formation and colorectal carcinogenesis in both mice model, compared to controls. In immunohistochemistry, there were also observed that α-viniferin treatment decreased protein level of COX-2 and iNOS in the colon of both models, compared to each controls. In Caco-2 cells, α-viniferin treatment reduced COX-2 level, furthermore, increased cleaved caspase-3 and eventually induced apoptosis. These results suggest that α-viniferin may play a role in the prevention of AOM-induced colorectal tumorigenesis via the suppression of COX-2 and iNOS.

### **P-128 LEPTIN RECEPTOR EXPRESSION IN MIDDLE EASTERN COLORECTAL CANCER AND ITS POTENTIAL CLINICAL IMPLICATION**

K. Al-Kuraya, P. Bavi, S. Uddin, N. Al-Sanea, A. Abduljabbar, L. Ashari, S. Alhomoud, F. Al-Dayel

King Faisal Specialist Hospital & Research Centre

**Leptin Receptor Expression In Middle Eastern Colorectal Cancer And Its Potential Clinical Implication.** We investigated the role of leptin receptor (Ob-R) and its relationship with PI3K/AKT activation in colorectal carcinomas (CRC) tissues followed by in vitro studies using a panel of CRC cell lines. Obesity serves an important risk factor of several cancers including CRC which ranks as the second most common cancer in Saudi Arabia. High levels of adipokine leptin and its Ob-R are seen in obesity and also in various carcinomas including CRC. We investigated the proliferative and antiapoptotic effect of leptin on human CRC cell lines Caco-2, HT-29 and SW-620 and the role of PI3K/AKT signaling pathway in mediating these actions. Then the expression of Ob-R and its relationship with

clinicopathological features was analyzed in 448 CRC, 229 normal colon mucosa and 24 colorectal adenomas using tissue microarray technology. Treatment with leptin resulted in increased proliferation of CRC cell lines and involved activation of PI3K/AKT signaling pathway. Pretreatment with Ob-R siRNA or PI3K inhibitor inhibited these responses. Ob-R was significantly over expressed in primary CRC relative to adenomas and normal colonic mucosa. In primary CRC, Ob-R significantly correlated with leptin expression, early stage and well differentiated tumors. Intriguingly, patient with Ob-R positive tumors showed significantly better overall survival ( $p=0.0098$ ). Leptin plays a critical role in CRC carcinogenesis through PI3K/AKT pathway via Ob-R. Ob-R is a prognostic marker associated with better survival.

#### **P-129 INTEGRATED NETWORK OF COLORECTAL CANCER PREVENTION IN IRAN: AN APPROACH FOR ENHANCING QUALITY OF SCREENING**

E. Maserati, R. Fatemi, S. Amin Sharifi, N. Gooran, A. Safaee, B. Moghimi-Dehkordi, N. Samadi, M. Pourhoseingholi, A. Pourhoseingholi, M. Zali

Research Center of Gastroenterology and Liver Diseases, Shahid Beheshti University M. C, Tehran, Iran

Colorectal cancer (CRC) is one of the most prevalent cancers and leading cause of cancer mortality worldwide. Colorectal cancer is third common cancer in women and 5th in Iranian men and incidence of colorectal cancer is increased during the last 25 years. Colorectal cancer incidence and mortality are reduced with regular screening. Colorectal cancer screening depends on integration of information between clinical, pathology and genetics departments. Integration of information networks for diagnostic and screening tests facilitate quality improvement of programs and clear communication among health care providers. In this study was presented integrated network of colorectal cancer prevention in IRAN. Information with standard content was shared between clinical, pathology and genetics department. Need information of departments were met quickly in educational, clinical and research fields. Integrated information in colorectal cancer screening enhances decision making in various stage of prevention. Information management has the key role to increase greatly the efficiency of screening program. Integration in Preprocedure, intraprocedure, and postprocedure colonoscopy data and standard pathology and genetic data can be used to improve the quality of activities.

#### **P-130 NUTRITIONAL HABITS IN PROTECTION FROM CANCER AND HEALTHY LIFESTYLE OF STUDENTS IN SCHOOL OF HEALTH**

A. Tuna Malak\*, M. Bektas\*\*, A. Sami Yumer\*, M. Korkmaz\*\*\*

\*Canakkale Onsekiz Mart University School of Health Sciences

\*\*Dokuz Eylul University School of Nursing

\*\*\*Suleyman Demirel University School of Health Science

Objective: To examine the relationship of cancer prevention-related nutrition behavior and healthy lifestyle of students.

Method: Research was a semi-experimental. For research was obtained permission from dean of school and students. Total were 79 students in first and second class. The planned education to them about nutrition, exercise in protection from cancer was carried out for 5 groups in 10 hours. The data collected by questionnaire of demographical, nutrition habits (about fruits, vegetables, genetically modified organisms, fast foods, etc.) and Health Promotion Life-Style Profile (HPLP). These forms were applied at the beginning and after 6 months from training. Students were identified in two groups as healthy and unhealthy fed. Data for evaluating was used number-percentage, Chi Square, McNemar and dependent groups t test. Results: Students were 73.4% female, 84.8% nurses, 48.1% first-class. Of students were 63.2% with housing and 29.1% staying alone. 22.8% of them had cancer history in family. They were found 13.9% obese at beginning but they did not lose weight after six months. Students had healthy fed 49.4% before training, 50.6% after six months. It wasn't statistically significant difference ( $p > 0.05$ ). Healthy lifestyle mean scores of groups weren't difference between before training and after six months from training ( $p > 0.05$ ). But healthy lifestyle mean scores of them increased after six months from training. 58.8% of students who were cancer history in family had healthy fed. It wasn't significant difference between healthy fed and cancer history in family. Conclusion: Nutrition education would provide habits in protection from cancer.

#### **P-131 MECHANISMS OF BLACK RICE BRAN EXTRACTS ON PROLIFERATION AND APOPTOSIS OF CANCER CELLS**

W. Thongthep\*, V. Leardkamolkarn\*\*

\*Institute of Nutrition, Mahidol University, Thailand

\*\*Department of Anatomy, Faculty of Science, Mahidol University, Thailand

The bran of Riceberry, a Thai black rice cultivar developed for medical benefits, was evaluated for the potential anti-cancer activities and its mechanisms of action using various bioassays. Colonic carcinoma (Caco-2), breast adenocarcinoma (MCF-7) and acute myelocytic leukemia (HL-60) cell lines were treated with dichloromethane (DCM) or methanol (MeOH) extracts of Riceberry bran (BRB) for 24-72 hours. Percent cell proliferation inhibition was performed by MTT and BrdU incorporation assays. Cell cycle distribution was analyzed by Flow cytometry and apoptosis induction mechanisms were determined by biochemical assays. The results showed efficient cell proliferation inhibition exerted by the DCM extract than the MeOH extract. The DCM extract caused cell cycle arrest of MCF-7 at G0/G1 phase and induced apoptosis of Caco-2 cell after 48 hour treatment. Meanwhile, the MeOH extract arrested cell cycle of MCF-7 and Caco-2 cells at the S phase. Both the DCM and MeOH extracts strongly induced apoptosis of HL-60 cell. Arrest in cell cycle by DCM extract was correlated with cell cycle-associated protein (cyclins) by down-regulation of cyclin D1, but arrest in cell cycle by MeOH extract was related to up-regulation of cyclin B1 and down-regulation of cyclin D1. The consequence up-regulation of p53 and decrease inactive caspase-3 expression indicated apoptosis potential and its pathway after cell cycle arrest. The results suggested that both extracts of Riceberry contained bioactive constituents that have anti-cancer properties. The efficacy of apoptosis induction was much potent in HL-60 than MCF-7 and Caco-2.

#### **P-132 PREVENTION OF CERVICAL CANCER: KNOWLEDGE AND ATTITUDE OF MALAYSIAN SECONDARY SCHOOL STUDENTS**

H. Rashwan\*, S. Nurhidayah\*, I. Ismarulyusda\*\*

\*Faculty of Pharmacy &, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia

\*\*Faculty of Allied Health Sciences, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia

Cervical cancer is one of the most frequent cancers in women worldwide. Human papillomavirus (HPV) is the essential cause for cervical cancer. Vaccination and Pap smear screening are the best methods for prevention of the disease. The objective of this cross-sectional study was to assess the knowledge and views of upper secondary school students in Kuala Lumpur, Malaysia towards prevention of cervical cancer. This study was conducted from April to September 2009 in 8 schools in Kuala Lumpur using pre-tested questionnaires. Results indicated that 80.4% of the students had heard about cervical cancer but the knowledge on cervical cancer among students was low. The level of knowledge was significantly higher among students from science stream ( $p < 0.001$ ) compared to students from art stream. Most students (69.3%) agreed to take the vaccine if the service was available in schools while 30.7% refused to take it. Reasons for the refusal were: students felt they were not prone to get the cancer, afraid of the vaccination and did not know the importance of the vaccination. However, most students (82.2%) agreed that the vaccination should be compulsory to the students. In conclusion, most students had low knowledge of cervical cancer and its prevention but they had positive attitude towards vaccination. Suitable educational programs should be developed to improve the knowledge of secondary school students on the prevention of cervical cancer prior to the introduction of HPV vaccination in Malaysian schools.

### **P-133 GENETIC RISK FOR CERVICAL CANCER IN NORTHEASTERN THAILAND**

W. Settheetham-Ishida\*, P. Yuenyao\*\*, D. Settheetham\*\*\*, T. Ishida\*\*\*\*

\*Department of Physiology, Faculty of Medicine, Khon Kaen University, Khon Kaen 40002, Thailand

\*\*Department of Obstetrics and Gynecology, Faculty of Medicine, Khon Kaen University, Khon Kaen 40002, Thailand

\*\*\*Department of Environmental Health, Faculty of Public Health, Khon Kaen University, Khon Kaen 40002, Thailand

\*\*\*\*Department of Biological Sciences, Graduate School of Science, The University of Tokyo, Tokyo, Japan

Introduction: Cervical cancer is still a serious national health problem in Thailand where the HPV infection and smoking were identified as strong risk factors for the cancer. To find out other risk factors such as genetic backgrounds we have selected phase II detoxification enzyme genes (GSTM1 and GSTT1) and DNA repair genes (XRCC1 and XRCC3) to test the contribution of their polymorphisms to the development of squamous cell cervical cancer (SCCA). Method: Cases ( $n=111$ ) were defined as SCCA and controls ( $n=118$ ) were recruited from healthy women without cervical abnormalities. Their HPV infection status was known. PCR method was employed to identify GST-null genotypes and PCR-RFLP was for the typing of XRCC1 Arg399Gln and Arg194Trp and XRCC3 Thr241Met. Results: Neither of the GST-null genotypes increased the risk for SCCA ( $p > 0.05$ ). The XRCC1 194Trp/Trp genotype significantly increased risk for SCCA (OR=5.52; 95%CI=1.14-26.64;  $p=0.03$ ). Among the HPV infection negative group, significantly higher risks for SCCA were visualized for XRCC1 399Arg/Gln (adjusted OR=3.69; 95%CI=1.04-13.06;  $p=0.04$ ) and XRCC1 194Arg/Trp (adjusted OR=4.13; 95%CI=1.13-15.12;  $p=0.03$ ). Conclusion: Genetic polymorphisms of GSTM1 and GSTT1 are not significant risk factors for SCCA. Variant type of XRCC1 plays partial roles in modifying individual susceptibility to SCCA. Since SCCA is a multi-factorial disease, contribution of the repair enzymes, if it ever exists, to the development of SCCA is concealed by the major risk factor, HPV infection.

### **P-134 RASPBERRY FOR PROSTATE CANCER PATIENTS: HEALTHFUL OR RISKY?**

H. Gumushan\*, S. Altun\*, B. Tekguler\*\*

\*Istanbul University, Faculty of Science, Department of Biology

\*\*Ondokuz Mayıs University, Faculty of Engineering, Department of Food Engineering

Raspberry is delicious fruit of *Rubus idaeus* L. plant which is a member of Rosaceae family. In many recent publications the importance of various constituents of raspberry, polyphenols especially ellagic acid was shown in vitro and in vivo to be beneficial for protecting cells from different forms of cancer. The aim of this study is to apply the extracts of fruits of *R. idaeus* prepared with methanol or ethanol, on highly metastatic Mat-LyLu cells and weakly metastatic AT-2 cells, which are rat prostate cancer cells of Dunning Model in vitro and to determine the effects of these extracts on the cell proliferation and migration of these cell lines of different metastatic abilities. The methanolic or ethanolic extracts of fruits of *R. idaeus* were applied on Mat-LyLu and AT-2 cell lines at 50 µg/ml, 100 µg/ml, 200 µg/ml, 400 µg/ml doses for 24 to 48 hours. At the end of this period cell proliferation was measured spectrophotometrically by MTT assay and cell migration was investigated via wound healing assay. The amount of total phenolics in extracts was determined according to the Folin-Ciocalteu's procedure. Although it was determined that high dose of methanolic fruit extract of *R. idaeus* suppressed the migration of highly metastatic Mat-LyLu cells, migration of cells were enhanced at low dose, where it didn't produce a significant change on the proliferation of Mat-LyLu and AT-2 cells. Also it was determined that ethanolic fruit extract of *R. idaeus* stimulate depending on dosage both of the cell lines' movement not affected by proliferation.

### **P-135 HPV VACCINE: CURRENT SCIENTIFIC PRODUCTION**

M. Ferreira, A. Garcia Braz

UNESP

This study is a literature review on the HPV vaccine covering the period from 1997 to 2008. Twenty-eight publications were obtained from the LILACS, SCIELO and MEDLINE databases. The categories designed were: Vaccine classification; Availability x serum types; Efficacy, safety and protection; Immunity; Target public; and Costs. The vaccines are classified as therapeutic and prophylactic, bivalent and quadrivalent. The combination of many virus subtypes is considered to be ideal; however, it is unfeasible due to technical and financial reasons. They are highly immunogenic and safe, prevent infection and are recommended to women who have not initiated sexual activity. The age range recommended for vaccination is that from nine to twelve years old. While the vaccine is not a reality for Brazilian women, the emphatic inclusion of HPV infection in programs for prevention against sexually transmitted diseases, by means of educational policies and the periodical performance of cytopathological tests, becomes necessary.

### **P-136 IS IT POSSIBLE TO PREVENT DELAYED DIAGNOSIS OF SECONDARY LEUKEMIA FOLLOWING CHEMOTHERAPY IN SOLID TUMORS? A HEPATOBLASTOMA CASE.**

S. Yilmaz\*, O. Ozgur Horoz\*\*, D. Yildizdas\*\*, G. Gul Mert\*\*, C. Acipayam\*, I. Bayram\*, A. Tanyeli\*

\*Cukurova University Medical Faculty, Pediatric Hematology/Oncology

\*\*Cukurova University Medical Faculty, Pediatric Intensive Care Unit

Introduction: Secondary leukemia (SL) is the most serious complication of chemotherapy. The most common type of leukemia is acute myeloid leukemia. The type of the primary solid tumor, chemotherapeutic agents and time from the diagnosis of primary tumor to the development of a SL are not well documented. Leukemias, lymphomas and CNS tumors are the most common primary malignancies. Topoisomerase II inhibitors, vinca alkaloids and alkylating agents can mostly cause secondary leukemia. The risk of myeloid leukaemia was greatest within the first decade from diagnosis. Chemotherapy-related SL is presented only in nine cases with hepatoblastoma in literatures. We want to report a hepatoblastoma case diagnosed with chemotherapy-related acute myeloid leukemia. Case: A 17-month-old boy diagnosed with hepatoblastoma while at 6-month old was hospitalized because of lower respiratory tract infection and cytopenia. He was transported to the intensive care unit due to acute respiratory distress syndrome. Two months ago, chemotherapy was completed. He received five courses of cisplatin and three courses of vincristine, 5-fluorasil and doxorubicin that resulted in a good tumour regression. Bone marrow examination was done for the differential diagnosis of cytopenia and revealed immature myeloblasts accounted for 45.0% of nucleated cells. Acute myeloid leukemia was diagnosed and induction chemotherapy was started after discharging from intensive care unit. Conclusion: Hepatoblastoma rarely causes SL. Hematological follow-up of patients based on clinical examinations and peripheral blood cell counts should be exercised closely after discontinuing of chemotherapy in rare solid tumors. Physician awareness is vital to prevent delayed diagnosis of secondary leukemia.

### **P-137 DIETARY INTAKE AND RISK OF ORAL CANCER: A SYSTEMATIC REVIEW**

W. Ghani, Z. Aziz, A. Atiya

University of Malaya

Smoking, alcohol consumption and betel quid chewing are established risk factors for oral cancer. Other factors such as dietary intake have been investigated, however evidence on the relationship between food intake and oral cancer risk are contradictory and inconclusive. The aim of this review was to determine the association between intakes of selected food items namely fruits, vegetables, meat and meat products and fish with oral cancer. We carried out a comprehensive search of the Cochrane Library, Ovid MEDLINE, electronic publishing sites and reference lists of relevant papers from inception to December 2008 to identify studies assessing association between food intakes with oral cancer risk. We also contacted experts on nutrition to identify additional studies. Two authors independently extracted data and assessed study quality using Newcastle Ottawa Scale (NOS). Twenty-three case control studies involving 6,842 cases and 69,904 controls were included. Slightly more than half of the studies were considered to be of high quality. Evidence supporting the hypothesis of a protective effect of the consumption of fruits and vegetables on oral cancer risk is limited. Beneficial effects are only seen for the intake of citrus fruits and raw vegetables in which almost all studies found significant inverse relation. Evidence is inconclusive for the hypothesized harmful effect of meat consumption with oral cancer. Similarly, evidence on the relationship between low intakes of fish with risk of oral cancer is also inconclusive as only half of the studies found significant inverse relation.

### **P-138 KNOWLEDGE, ATTITUDE AND BEHAVIOR OF WOMEN 15 YEARS AND OVER ABOUT BREAST CANCER RISK FACTORS, SYMPTOMS AND BREAST SELF-EXAMINATION IN BURSA, TURKEY**

T. Engindeniz\*, E. Irgil\*\*, E. Piskin\*, Z. Kusat\*, Y. Leventoglu\*\*\*, O. Akan\*\*\*\*

\*Bursa Health Directorate

\*\*Uludag University Faculty of Medicine, Department of Public Health

\*\*\*Deputy Director of Health

\*\*\*\*Director of Health

INTRODUCTION AND OBJECTIVES: Breast cancer constitutes 32 % of cancers and 19 % cancer-related deaths in women. In Turkey, the incidence of breast cancer is 7,32/100 000 with leading in 10 most frequent cancers among women. Studies conducted have shown that regular breast self-examination (BSE) affected treatment, prognosis and survival time. In 2008, 470 breast cancer patients in our province have been diagnosed and evaluating in all age groups with a diagnosis of cancer, it was constituted 10% of all cancers. It took place in the second rank of the most common cancers. In this study, it is aimed to determine the knowledge of women over the age of 15 living in Bursa about breast cancer risk factors and symptoms and to evaluate the behavior of these women for BSE. METHODS: This descriptive study is conducted between November 2009 - January 2010 among 992 women age 15 and over living in the center and the districts of Bursa (17 districts). The study population consists of 15 years and over 998,215 women according to Bursa household records in 2009. Women age 15 and over whom live in districts which were standardized according to the weight of the study population, one per thousand, 998 women were selected by using simple random sampling method. Of 998 women which constitutes the sample, 99,4 % were reached. Data was collected with a questionnaire containing 37 questions about demographic characteristics of women and breast cancer symptoms, risk factors and early diagnosis with BSE by medical staff and by face to face interview techniques. In the analysis of the data, SPSS 17.0 statistical package program was used. RESULTS: Mean age of the women included in the study was 40.04 ± 16.6 (15 – 87) years. 34.7% of women were primary school graduates and 34.0% had an education degree of high school or higher. When cancer frequency among women was questioned breast cancer was ranked first with 67.5%. 58.3% of women stated that they were doing BSE. 26.9% of them expressed that they were doing BSE monthly. When signs of breast cancer were questioned, breast swelling was stated by 79.4% of women followed by swelling at armpit with 56.0% and pain in breast with 54.1%. 48.7% of women indicated that BSE, 20.5% physician control and 18.6% mammography will be enough for early diagnosis of breast cancer. 41.6% were stated that starting age for periodic breast controls is 20. 21.1% of women were smokers. 80.3% of women stated that smoking and breast cancer are related. 74.8% of women were breastfed their children. Most common sources of knowledge about breast cancer were radio-TV 43.6%, physician 21.3% and newspaper and magazines 15.2%. 54.0% preferred public hospitals and 36.6% were preferred family physicians for admittance if they would have any problem about their breasts. Comparison of educational status (primary school vs higher) was revealed statistically significant difference in terms of doing BSE ( $\chi^2=31.83$ ), higher risk with a family history ( $\chi^2= 7.78$ ) and preventing deaths with early diagnosis ( $\chi^2=93.78$ ,  $p<0.05$ ). There was a statistically significant difference between smokers vs. non – smokers in terms of stating the relationship between smoking and breast cancer ( $\chi^2=295.398$ ,  $p<0.001$ ). CONCLUSIONS: Women included in the study has a medium level of knowledge about breast cancer and BSE and mammography frequencies were lower than necessary. In order to prevent deaths from breast cancer and to increase life expectancy educational activities should be increased in health centers and especially media which women stated as their primary knowledge source. As educational level of women increased their awareness about breast cancer and BSE also increased. Education and information given in primary health care centers will increase the sensitivity towards BSE and breast cancer.

### **P-139 DYNAMICS OF AGE INCIDENCE RATES OF BREAST CANCER IN KAZAKHSTAN**

N. Iginov, Z. Bilyalova

Astana Medical University

Since 1998 till 2008 in Kazakhstan have been registered about 28,707 cases of breast cancer (BC). This is the statistic of BC for 10 years: the age category till 30 years – 262 cases (0.9%); 30-39 – 2,090 (7.3%); 40-49 – 7,484 (26.1%); 50-59 – 7,466 (26.0%); 60-69 – 6,306 (22.0%) and from 70 years and over it – 5,099 cases (17.8%). Middle age of patients with BC was 58.1±0.2 years. In dynamics it means that the middle age tended to increase, and mid-annual rate of a gain has made  $T=+0.3\%$ . Age incidence rates of BC were the following: till 30 years –  $0.7\pm0.1$ ; 30-39 –  $18.5\pm0.3$ ; 40-49 –  $69.4\pm1.1$ ; 50-59 –  $107.1\pm2.9$ ; 60-69 –  $115.8\pm3.6$  and in 70 years are more –  $112.2\pm2.80/0000$ . The incidence rates of women with BC were over 50 than indicators of women till 50 years were less. In dynamics age incidence rates indicators of BC had the various tendency. So, the disease indicators of women till 50 years decrease: till 30 years ( $T=-5.5\%$ ); 30-39 years ( $T=-0.2\%$ ) and 40-49 years ( $T=-0.8\%$ ). Age incidence rates of BC of women who were over 50 years tended to growth: 50-59 years ( $T=+3.0\%$ ); 60-69 years ( $T=+4.1\%$ ) and also of women over 70 years ( $T=+2.5\%$ ). Thus, the greatest relative density of BC is established at 40-59 years (52.1%) and in dynamics BC tends to «ageing». Age incidence rates of BC in Kazakhstan had unimodal growth with peak at 60-69 years ( $115.8\pm3.60/0000$ ).

### **P-140 TRENDS IN CERVIX CANCER INCIDENCE IN THE CENTER OF TUNISIA, 1993-2006**

N. Missaoui\*, A. Trabelsi\*\*, D. Parkin\*\*\*, M. Mokni\*\*\*\*, L. Jaidaine\*\*\*\*\*, D. Chatti\*\*\*\*\*, L. Frappart\*\*\*\*\*, S. Hmissa\*\*\*\*\*, S. Korbi\*\*\*\*

\*Research Unit 03/UR/08-13, Cancer Epidemiology and Cytopathology in Tunisian Center, Medicine Faculty, Mohamed Karoui Street, 4002 Sousse, Tunisia

\*\*Pathology Department, Farhat Hached University Hospital, Sousse 4000, Tunisia

\*\*\*Cancer Research UK Centre for Epidemiology, Mathematics and Statistics, Wolfson Institute of Preventive Medicine, Queen Mary University of London, London UK

\*\*\*\*Pathology Department, Farhat Hached University Hospital, Ibn El Jazzar Street, 4000 Sousse, Tunisia

\*\*\*\*\*Cancer Registry of the center of Tunisia, Farhat Hached University Hospital, Ibn El Jazzar Street, Sousse 4000, Tunisia

\*\*\*\*\*Pathology Department, Edouard Herriot Hospital, 69437 Lyon Cedex 03, France

Introduction and objectives: Uterine cervix cancer is an important public health problem in Tunisia. In this study, we report trends in the incidence of cervix cancer in the center of Tunisia during 1993-2006. Methods: Data were obtained from the Cancer Registry of the center of Tunisia which registers invasive cancer cases by active methods. Five-year age-specific rates, crude incidence rates (CR), world age-standardized rates (ASR), percent change (PC) and annual percent change (APC) were calculated using annual population data. Results: Among all women cancers, cervix cancer was accounting for 6.4% and ranked the fourth during the study period with an ASR of 6.7 per 100,000. Throughout the whole period, the ASRs and CRs declined with APC of -6% and -7.4% respectively. During 2003-2006, weak incidence rates were reported (ASR: 4.9 per 100,000; CR: 4.1 per 100,000). However, incidence rates of adenocarcinomas have increased during last years (APC: +14.4%). Conclusion: The introduction of cytological screening programs has led to a marked decrease of incidence rates of the cervix cancer among Tunisian women.

### **P-141 HPV INFECTION AND UTERINE CERVIX LESIONS IN TUNISIA**

N. Missaoui\*, A. Trabelsi\*\*, S. Hmissa\*\*, M. Mokni\*\*, L. Frappart\*\*\*, S. Korbi\*\*

\*Research Unit 03/UR/08-13, Cancer Epidemiology and Cytopathology in Tunisian Center, Medicine Faculty, Mohamed Karoui Street, 4002 Sousse, Tunisia

\*\*Pathology Department, Farhat Hached University Hospital, Sousse 4000, Tunisia

\*\*\*Pathology Department, Edouard Herriot Hospital, 69437 Lyon Cedex 03, France

Introduction and objectives: Uterine cervix cancer is an important public health problem in developing countries. In order to predict the impact of HPV vaccines and HPV-based screening tests among Tunisian women, we analyzed the distribution of HPV genotypes in uterine cervix lesions in the center of Tunisia. Methods: We conducted a retrospective study of 146 uterine cervix specimens including 30 benign lesions, 36 low-grade cervical intraepithelial neoplasias (CIN1), 45 CIN2/3, 26 invasive squamous cell carcinomas (SCC) and 9 adenocarcinomas. HPV infection detection and typing were investigated by PCR. Results: Overall HPV prevalence was 73.6%. HPV infection was associated to 84% of precancerous lesions and 83.9% of cancers. High-risk HPV infection (HPV16 and 18) was detected in 17.4% of CIN1, 74.3% of CIN2/3 and 73.1% of cancers. HPV16 was the most common HPV type detected among CIN2/3 ( $p<0.0001$ ), invasive SCC ( $p=0.001$ ) and adenocarcinomas ( $p<0.0001$ ). Conclusions: Thus, considering our results, available HPV vaccination and HPV-based screening tests would be efficient in the prevention of the cervix cancer among Tunisian women and in the reduction of related mortality and morbidity.

### **P-142 PARTICULARITIES OF IMPLEMENTATION OF CERVARIX IN MOLDOVA. OBSTACLES AND PERSPECTIVES.**

I. Digol\*, R. Comendant\*, V. Mereuta\*\*

\*Reproductive Health Training Center (Chisinau, Moldova)

\*\*GlaxoSmithKline Moldova (Chisinau, Moldova)

• Introduction and objectives Last years in Moldova there is a tendency of cervical cancer (CC) morbidity rate growth, with considerable predominance of its advanced form, 3d and 4th stages, namely about 60%. Despite the existence of the CC screening program, such a predominance shows inefficacy of Screening program. Thus the implementing of Cervarix vaccine in Moldova is the important point in Human papillomavirus (HPV) prevention which is the CC risk factor. This work main objective is to analyze the efficacy of the project of implementation of Cervarix vaccine in Moldova and to elaborate measures for its improvement. • Materials and methods: Cervarix vaccine; 105 women vaccinated with Cervarix at 3 medical centers in Chisinau (Moldova) since 2008. • Results Review of the vaccination project showed that despite all of vaccination cases are without serious adverse effects, this project meets several obstacles and disparities: insufficient awareness of medical staff and population; age group of vaccinated



women (14-58 years old) mismatches the WHO recommendations (9-26 years old); charged vaccination sufficiently reduces access of low incomes women. • Conclusions Generally, the project of Cervarix implementation has to be evaluated as an important issue in CC prevention in Moldova. Simultaneously this project should be improved by: - target group selection followed to WHO recommendations; - raising population and medical providers awareness on CC screening and HPV vaccination; - reinforcing CC screening program and introduction HPV vaccination in the National cervical cancer prevention program.

## **P-143 HEALTH EFFECTS OF ELECTROMAGNETIC FIELDS FROM CELLULARHEALTH EFFECTS OF ELECTROMAGNETIC FIELDS FROM CELLULAR PHONES AND BASE STATIONS: RECENT EVIDENCE ON CANCERS**

R. Durusoy, H. Hassoy, A. Karababa

Department of Public Health, Ege University Medical School, Izmir, Turkey

Exposure to electromagnetic fields (EMF) has become a part of modern life. Among sources of EMF, radiofrequency waves from cellular phones and their base stations are increasingly affecting the public. There are strong debates on the health effects of this type of EMF and the number of studies on this topic is on the extreme rise in recent years. The aim of this review is to describe the effects of EMFs on health with a particular emphasis on cancers according to the latest findings and to discuss possible sources of bias in this area. Some pathways through which cellular phone EMFs affect on the functioning of the cells of the body have been identified, three of them known to be leading to carcinogenesis. Some effects on specific organs or on the functions of the body have been found in experimental or observational studies, both in animals and humans. There are non-specific health symptoms associated with exposure to both cellular phones and base stations, with the frequency of symptoms increasing with phone use or decreasing with increasing distance to base stations. According to some of the Interphone studies of IARC and to Hardell's studies, an association has been found for glioma, acoustic neurinoma, meningioma, parotid gland tumors, especially after 10 years of duration of use and on the ipsilateral side of the head. There are some sources of bias which should be considered when interpreting the results of both experimental biological studies and case-control studies, the most important being funding bias. The Precautionary Principle should be applied to prevent a rise in especially brain tumours.

## **Registry and Epidemiology**

### **P-144 DECLINE IN THE AGE SPECIFIC CANCER INCIDENCE RATES AMONG ELDERLY IN TURKEY (IZMIR AND ANTALYA): COHORT EFFECT OR AN INDICATOR FOR LACK OF ACCESSIBILITY TO HEALTH CARE OF OLDER ADULTS**

S. Eser\*, H. Karakilinc\*\*

\*Izmir Cancer Registry

\*\*Antalya Cancer Registry

Purpose: Our purpose is to evaluate the decline in cancer incidences in the elderly in Turkey. Methods: Age specific cancer incidence rates for Izmir and Antalya in 1998-2002 which has been published at Cancer Incidence in Five Continents, IX ([www-dep.iarc.fr](http://www-dep.iarc.fr)) were evaluated in this study. Results and Conclusion: There are obvious decreases in the cancer incidences in the oldest age groups in most sites in Turkey. For most of the epithelial cancers incidence increases as a power of age. These cancer incidence decreases might be attributed to two main reasons: 1. Less efficient case ascertainment and 2. Cohort effect. Less efficient case ascertainment may be a consequence of competing cause of mortality in the elderly (so that cancer is not recorded on death certificates) and most probably lack of access to appropriate health services for elderly in Turkey. A cohort effect might also be an alternative potential reason since skin cancers other than malign melanoma figures are consistent with the expected increasing incidence trends as person gets older. The recent developments in cancer registration in Turkey is promising to answer this questions as well as many others.

### **P-145 CANCER INCIDENCE IN TURKEY IN 2005: FIRST ESTIMATIONS FROM CANCER REGISTRY NETWORK OF TURKEY**

S. Eser\*, E. Ozen\*\*, H. Karakilinc\*\*\*, O. Karaoglanoglu\*\*\*\*, C. Yakut\*, S. Ozalan\*, Z. Anbarcioglu\*\*\*\*\*, N. Ucuncu\*\*\*\*\*, M. Tuncer\*\*

\*Izmir Cancer Registry

\*\*MoH, Cancer Control Department, Ankara

\*\*\*Antalya Cancer Registry

\*\*\*\*Samsun Cancer Registry

\*\*\*\*\*Bursa Cancer Registry

\*\*\*\*\*Trabzon Cancer Registry

Purpose: At this presentation we are presenting the estimates for Turkey for the year 2005 which we calculated using the results of these eight registries: Izmir, Antalya, Bursa, Eskisehir, Samsun, Trabzon, Edirne and Erzurum Cancer Registries. Methods: We calculated age specific and age adjusted incidence rates (ASR –world standard population) for all registries separately. We assigned a weighting coefficient for the results of each registry according to the population size which the registry represents. We used Edirne and Bursa results combined for representing Marmara region and the results of Erzurum and Ardabil (Iran) registries for the east and southeast regions. Results : We pooled 26 310 cases totaly (15691 males, 10519 females). ASRs are 197.7 per 100 000 for all sites, 177.1 per 100 000 for all sites but skin among male; 125.6 per 100 000 for all sites and 110.6 per 100 000 for all sites but skin among female. The most frequent cancer is lung cancer and has 47.5 per 100 000 ASR among males; prostate, bladder, stomach and colo-rectal cancers are following lung at the second, third, fourth and fifth rows with 21, 17.4, 16.9 and 13 per 100 000 ASRs respectively. Among females breast is at the first rank with 28 per 100 000 ASR and is followed by colo-rectal, stomach, thyroid and lung cancers at

the second, third, fourth and fifth rows with 9.5, 7.7, 7.3, 5.6 per 100 000 respectively. Conclusion: We present the most accurate and realistic estimations for Turkey till now.

#### **P-146 CANCER INCIDENCE , TRENDS, AND SURVIVAL IN SETIF,ALGERIA 1986-2005**

H. Mokhtar, Z. Zaidi, A. Abdellouche, S. Hamdi, N. Lakhdari, A. Djema, S. Laouamri, A. Mahnane, H. Moussaoui, L. Kadri, D. Guerra

Laboratoire sante Environnement, University Setif,Algeria

This study relates incidence trends and survival in Setif Cancer Registry during the period 1986-2005. Lung cancer is the first commonly site, the age-standardized rate raising; from 11.7 to 21.9 / 100.000 people for one year for males. Prostate cancer is in second position, increasing and fast trend from 2.0 in 1986 to 7.2 per 100.000 men in 2005. In both sexes, new cases of colorectal cancer are raising Bladder increases 2.2 to 8.7 per 100.000 people for one year at the man. The incidence rates of cancers of nasopharyngeal carcinoma, stomach, lymphomas and leukemia's remained stable during these two last decades. In woman, the incidence rate of breast cancer is raising, from 10.4 in 1986; to 19.6 in 2005. Incidence of thyroid cancer increases from 1,1 in 1986 to 4,3 in 2005. The rates are stable for the incidence lymphoma gallbladder and, cervix. The data of survival relative to 5 years, not exceeding 40%, according to the last study CONCORD 1990-1994 for the common cancers of the cancer registry.

#### **P-147 SURVIVAL OF COLORECTAL CANCER IN IRAN**

A. Moradi, M. Khayamzadeh, M. Guya, H. Mirzaei, R. Salmanian, A. Rakhsha, M. Akbari  
Cancer Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

**OBJECTIVE:** Colorectal Cancer is the forth cause of cancer after stomach, bladder, prostate in men and second cause after breast in women in Iran. It is estimated to occur 4000 new cases each year with 1150 death annually. Here we are going to introduce the survival of colorectal cancers in Iran in a national manner **METHODS & RESULTS:** The data from national cancer registry department of Ministry of Health and Medical Education (MOH&ME) were used as the main source of incident colorectal cancer in Iran from March 2000 to March 2005. One and five year's survival was 88% and 45% for females versus 86% and 39% for men. The median overall survival for colorectal cancer in Iran was 3.5 years with Confidence Interval 95 % ( 3.2-3.8 years). The worse survival status was in patients less than 20 and more than 80 years old. **CONCLUSION:** The overall 5 year survival for colorectal cancer in Iran (41%) is comparable even with some developed country but it is far from the countries with advanced health care system, or community based screening program. Thus on policy level application of an appropriate national cancer control program and management guidelines should be under consideration

#### **P-148 EVALUATION OF TURKEY MINISTRY OF CANCER INCIDENCES**

S. Ozkan

istanbul university

This study aims to evaluate the annual changes in the incidence of cancer and region-based rate of cancer mortality. The cancer incidence in Turkey was calculated from the data obtained from the Cancer Control Department of the Ministry of Health (MoH). National Health Accounts and the Cost-Effectiveness Study 2004 (NBD-CE 2004) data were used to account the cancer mortality rates. Then, they were standardized through "direct standardization method", which is based on Turkish and European standard population. If standardized by the European population, cancer incidence was noted as 95.1% for the year 2001. It was relatively lower in the Southeastern Anatolia and the Black Sea Region if the whole country was considered. Standardized cancer mortality rate was 147.2/100,000 in general which 144.1/100,000 was in the Black Sea Region and 142.5/100,000 in the Eastern Region. Cancer incidence and cancer mortality rate in Turkey is lower than that of the European Union (EU) countries, which might be caused by two factors: the fact that Turkey has a younger population than the EU countries and/or cancer data is not collected so properly in Turkey. Community-based registry systems of the world-wide cancer registry systems quality should be developed in order to obtain concrete, clear and unquestionable data on cancer and to find out the actual scope of the problem in Turkey.

#### **P-149 PAPILLARY THYROID CANCER INCIDENCE IN OUR CITY WHICH HAVE HIGH PREVALANCE OF GOITER AT BLACK-SEA AREA**

S. Altınay\*, S. Ersoz\*\*, I. Duzgun\*\*\*, T. Yucebas\*\*\*

\*Cancer Early Detecting, Screening and Training Center, Department of Pathology

\*\*Medical Faculty of Karadeniz Teknik University, Department of Pathology

\*\*\*Giresun Government Hospital, Department of General Surgery

**SUMMARY:** The aim of this study was to investigate histopathologic characterization of thyroidectomi materials and to establish papillary carcinoma, nodular hyperplasia, adenoma rates in Giresun city which is designate to an geographic area with the most high goiter prevalence at Black-Sea region. Histopathologic characterization, age and sex range of 638 tyroidectomi patients were investigated for operated between on 2000 and 2004 year, in our government hospital. Surgical tecincs of our cases were, BST=625, ST=7, NTT=4 and there were 546 (%86) women, 92 (%14) man. Interval was between 18-85 age. Histopathologic diagnosis were 24 (%3.7) papillary carcinoma, 566 (%88.7) hyperplasia, 33 (%5.1) lymphostic thyroidit, 11 (%1.7) folliculer adenoma, 3 (%0.4) Hashimoto thyroidit, and 1 (%0.1) de-quervain thyroidit. All of the papillary carcinoma cases were woman, the mean age was 50.3. Pre-op malignant diagnosis were permitted to two cases with clinically and two cases with FNAC. The case of lymphositic thyroiditis were seen much more in women and young age group and statistically was significant. (p<0.05) We think that to be able to providing to decrease the range of endemic goiter by review the gutarogen black-cabbage among the food habit and cause to use salt with iodine and will to decrease of diagnostic error and choose the effective surgical method before operation by use to methods such as USG, syntigraphi, FNAC in cases with nodular goiter and evaluation of this datas by patholog, endocrinolog, surgeon.

## **P-150 INCIDENCE AND MORTALITY RATES OF CERVICAL CANCER IN DEVELOPING COUNTRIES**

R. Ozdemir\*, U. Yucel\*\*

\*Izmir Cancer Registry

\*\*Ege University Ataturk School of Health

**Purpose:** To define the incidence and mortality rates of cervical cancer and to evaluate the control activities in developing countries. **Method:** In this review, age-standardize incidence rates (ASIRs, per 100000) and age-standardize mortality rates (ASMRs, per 100000) according to the world standard population have been used by GLOBOCAN 2002 database. Publications about the research of the control activities published after 2000 year were scanned via PUBMED. **Results:** It was accounted for an estimated 409404 incident cases and 233776 deaths in the developing countries in 2002 (493243 and 273505 in the world respectively). ASIRs were 10,3 in more developed regions and 19,2 in less developed regions; ASMRs were 4.0 and 11.2 respectively. The highest risk was observed in sub-Saharan Africa, Latin America and the Caribbean, South-East Asia. ASIRs range from 2.0 in Syrian to 87.3 in Haiti. The decline in cervical cancer incidence and mortality in developed countries is largely credited to effective screening programs. These programmes are quite limited in developing countries. In population-based surveys, coverage of cervical cancer screening in developing countries is on average 19%, compared to 63% in developed countries, and ranges from 1% in Bangladesh to 73% in Brazil. **Conclusion:** Developing countries account for 80% of the World cervical cancer burden, mostly due to the lack of effective control activities. Efforts to organize an effective screening programme will have to find adequate financial resources, develop the infrastructure, train the needed manpower and elaborate surveillance mechanisms for screening, investigating, treating, and following up the targeted women.

## **P-151 COMPARISON TO AGE-SPECIFIC INCIDENCE CURVE OF BREAST CANCER AMONG ASIAN-PACIFIC WOMEN**

I. Cho, S. Park, K. Yoo

Department of Preventive Medicine, Seoul National University College of Medicine

Breast cancer is the most common cancer and is increasing in many Asian countries, due to changes in lifestyle and diet. However, the most Asian countries have lower incidence rates than Western. The age-specific incidence curve in Eastern Asian countries shows earlier peak than Western countries, but in other Asian women remains uncertain. We described the age-specific incidence curve of breast cancer in Asian-Pacific women. Using data obtained from GLOBOCAN 2002, we calculated the age-standardized rates (ASR) for five age groups (0-14, 15-44, 45-54, 55-64, over 65). Also, the age-specific incidence curves were compared by country and region. The age-specific incidence curve for breast cancer in Western countries is increasing as age increases after menopause. But, the mean age at onset of breast cancer in Asian countries is younger than in Western countries. Unlike Western countries, the age-specific incidence rate decreases after the age of 50 years. However, some countries such as Australia, New Zealand and Israel have similar ASR and age-specific incidence curve with Western countries. Countries such as Philippines, Kyrgyzstan, Iraq, Cyprus and Turkey have similar curves with Western countries but lower ASR. Differences in age-specific incidence curve of breast cancer between Asian and Western women might be due to actual increase in breast cancer and partially due to screening experience especially in middle-aged women. The other factors such as ethnicity, nutrition, social-economic status, and clinical stage are needed to be further investigated.

## **P-152 INTESTINAL CANCER IN CHILDREN: MOST LIKELY NOT AROSE IN THE CONTEXT OF LYNCH SYNDROME**

S. Aktas\*, G. Diniz\*\*, R. Ortac\*\*, C. Vergin\*\*

\*Dokuz Eylul University, Institute of Oncology, Izmir, Turkey

\*\*Dr Behcet Uz Children Research Hospital, Izmir Turkey

Childhood cancers are mainly composed of blastic tumors. Carcinomas are very rare in children. The question of childhood carcinoma relationship with familial cancer syndromes is a contemporary issue. The aim of this study is to investigate the relationship of childhood intestinal carcinoma with Lynch Syndrome and to discuss the clinicopathologic and molecular properties of childhood intestinal carcinomas by means of discussing the properties of two cases. Immunohistochemistry of MLH-1, MSH-2, MSH6 and PMS2 on paraffin tissue sections were done. Microsatellite Instability (MSI) analysis was done with pentaplex analysis custom system. One of the cases was an 11 year old girl with a rectal tumor. The other case was a 9 year old boy with ileocecal tumor. Both of the cases were mucinous adenocarcinomas and stage 3 at diagnosis. Both cases were treated with chemotherapy protocols. MLH-1, MSH-2, MSH6 and PMS2 expression was observed in tumor tissues. No aberrations were observed in MSI analysis for both cases. No indications were obtained for the presence of MSI in the investigated tumors indicating that the tumors most likely not arose in the context of Lynch syndrome. In follow up both cases died with disseminated disease. The reason why intestinal carcinomas arise in children still remains a question. It seems not to be a component of Lynch Syndrome. More molecular tests with large number of case of this rare cancer are needed. Note: We thank to Dr WNM Dinjens from Erasmus MC, University Medical Center Rotterdam, Josephine Nefkens Institute for technical support.

## **P-153 CANCER EMERGENCY: PROJECTIONS FOR TURKEY**

N. Ozgul, M. Gultekin, E. Olcayto, H. Yilmaz, M. Tuncer

The Ministry of Health of Turkey Cancer Control Department

**Objective:** To evaluate future projections of cancer burden in Turkey within next two decades. **Method:** A projective model extending until 2030 was constructed for Turkish cancer statistics using the previous cancer statistics, increasing number of hospital admissions and health costs, rate of aging and increasing exposure to environmental carcinogens and also further factors changing by time. **Results:** Incidence (per 100,000) of cancer was 176,3 in 2005, it is predicted to be around 293,7 in 2020 and 405,2 in 2030. The number of patients living with cancer is projected to be around 1,400,000 within 2030. Total expense of cancer related spending is estimated to be around 9, 6 billion dollars in 2030. Cumulatively, 149, 9 billion dollars will be disbursed within next two decades for only cancer related issues. With the addition of indirect expenses (man power and efficacy loss etc.), this number will increase to further levels. **Conclusion:** Cancer burden seems to be very high for Turkey within next two decades. Preventive and protective measures should immediately come in to force, otherwise governmental policies can not accept the refunding costs of cancer related therapies. Developing countries should learn how to construct similar models for their countries in order to see the awaiting cancer

epidemic within next future.

#### **P-154 CANCER REGISTRY AND INCIDENCE IN TURKEY: A EUROASIAN COUNTRY**

E. Olcayto, N. Ozgul, M. Gultekin, M. Tuncer

The Ministry of Health of Turkey Cancer Control Department

Objective: Turkey is a very big developing country with an 70 million population. Despite to the difficulty in implementation of cancer registry centers (CRC), it is also crucial for us to determine the exact cancer incidences. Methods: Starting from year 2000, we have constructed one CRC for 8 cities, which constitute about 20% of total population and situated in different states of Turkey. This model is the same as SEER model. Each center has around 70 members and all of them are internationally educated by IARC and MECC. Further interim educations are also performed under the guidance of Turkish Ministry of Health. An active cancer registry is performed in these centers and the quality is increased year by year. Results: The overall cancer incidence of Turkey is now very well known, without any doubt. There is an increasing cancer incidence in Turkey which reached to 173,8 per 100,000. The most common cancer is the lung both in overall population and males. Breast cancer is the leading among females. Surprisingly, the most common genital cancer in females was found to be ovarian cancer (7th), followed by endometrial and cervical cancers (incidences are 6,04; 5,38 and 5, 31 per 100.000, respectively). Quality of data is appreciated and cited in the IARC books (please see poster for details). Conclusion: Cancer registry is crucial for determining national cancer control programmes. Our results are very interesting since Turkey is a EuroAsian country. Developing countries should implement similar CRC for performing their policy against cancer.

#### **P-155 INTERACTIVE TRAININGS ON COMMUNICATION SKILLS, CANCER REGISTRY AND SCREENING: LONG TERM RESULTS UPON STANDARDIZATION OF PATIENT CARE**

N. Ozgul, M. Gultekin, E. Olcayto, M. Tuncer

The Ministry of Health of Turkey

Objective: To evaluate the effects of an interactive, collaborative training on the behaviors, way of communication and knowledge levels of the staff working in primary cancer screening centers of Turkey. Methods: Five days courses are applied to all doctors and nurses working in cancer screening centers. In addition to the basic science of cancer screening and registry, they also underwent training about the communication skills, different modalities of the patient education systems and the techniques to collaborate. Mock-up exercises for breast examinations and cervical smears were used. All lectures are given in an interactive form using the roll plays, open round discussions etc. Attendees were evaluated with a multiple choice test just before the course and after five days, with the end of the course. A total of 119 people (63 doctors, 26 nurses, 24 mid-wives, 6 medical technicians) trained during the last two years. Results: Of these people, precourse test degrees were significantly lower than postcourse degrees. Without such training, most of the staff would be unaware of basic principles of Pap smear sampling and breast examination. Also, all people are found to have increased communication skills with their patients and their supervisors. Without these courses, all the staff would probably cause a high percentage of insufficient smear samplings or wrong breast examinations or the unnecessary quarrels with the patients. Conclusion: Training is very important for cancer screening staff. Otherwise, they may cause higher burden of excess expenditures to the governments.

#### **P-156 DEMOGRAPHIC, CLINICAL AND PATHOLOGICAL CHARACTERISTICS OF VERY YOUNG (YOUNGER THAN 30 YEARS) BREAST CANCER PATIENTS IN TURKISH POPULATION**

S. Aksoy, N. Bulut, O. Dizdar, D. Dede, C. Arslan, E. Dogan, Y. Ozisik, K. Altundag

Hacettepe University Institute of Oncology

Background: Breast cancer rarely occurs in young women. Breast cancer in women below 35 years of age occurs rarely (2-4% of all breast cancer). Age below 35 is an independent risk factor of recurrence and death. Methods: The aim of the study was to compare clinical and pathologic risk factors of women with breast cancer aged 30 years or less (very young group) with women with breast cancer aged 31-50 years (young group) in Turkish population. Results: One thousand and thirty-eight consecutive breast cancer patients presenting at Hacettepe University Institute of Oncology were evaluated. 422 (40.0%) of the patients 35≤ 50 years, 116 (11.1%) and 44 (4.2%) patients were ≤were premenopausal and 30 years of age, respectively. Median age of the diagnosis in very young≤and young breast cancer groups were 28 and 41, respectively. In the 'very young' group, when compared with the 'young' patients, there were higher percentages of tumors classified as ER negative (48.5% versus 38.1%, P=0.26), PgR negative (43.3% versus 39.4%, P = 0.70), with HER2/neu positive (38.1% versus 22.2%, P = 0.23), and classified as being of grade 3 (52.9% versus 39.4%, P = 0.14). Triple-negative breast cancer were more frequent in very young groups ((30.4% versus 18.6%, P = 0.21). Conclusion: In our small cohort study population we 30) have poorer clinical and pathological≤observed that very young patients ( prognostic factors comparing to the young breast cancer patients. In our study population percentage of the younger

#### **P-157 OTHER MALIGNANCIES IN PATIENTS WITH BREAST CANCER: A SINGLE INSTITUTE EXPERIENCE**

E. Dogan, S. Aksoy, O. Dizdar, D. Dede, C. Arslan, Y. Ozisik, K. Altundag

Hacettepe University Institute of Oncology

Background: Breast cancer patients survive longer after advances in treatment options. During their follow up they may develop secondary malignancies or became breast cancer patients secondary to previously diagnosed malignancies. Methods: The aim of our study was to evaluate the other malignancies among breast cancer patients. 987 consecutive breast cancer patients presenting at Hacettepe University Institute of Oncology between years 2004 and 2009 were evaluated retrospectively. Results: Median follow up of all patients was 3.6 years (range; 0.3-28). Of all the study population, 19 (1.9%) had other malignancies. Among all breast cancer patients, 14 and 5 patients developed secondary malignancies before and after the diagnosis of breast cancer, respectively. The most frequently observed ones were ovarian cancer. Median age of breast cancer diagnosis was 49, while median age of previous malignancies was 45 years old. Conclusions: In our study frequency of other malignancies was 1.9%. This is most probably the due to the short follow up period. In our series nearly 50% malignancies diagnosed were gynecological tumors.

Therefore close follow up of patients who had gynecological tumors is very important due to risk of developing secondary cancer, especially breast cancer.

#### **P-158 BAYESIAN ESTIMATION OF COLORECTAL CANCER MORTALITY IN THE PRESENCE OF MISCLASSIFICATION**

M. Pourhoseingholi\*, S. Faghihzadeh\*, E. Hajizadeh\*, A. Abadi\*\*, M. Zali\*\*\*

\*Department of Biostatistics, Tarbiat Modares University, Tehran, Iran

\*\*Department of Biostatistics, Shahid Beheshti University M. C, Tehran, Iran

\*\*\*Research Center of Gastroenterology and Liver diseases, Shahid Beheshti University M. C, Tehran, Iran

Background: Colorectal cancer is the third most common cause of cancer-related deaths in the world. A familiar projection to address the burden of its mortality rates but according to Iranian death registry, about 20% death statistics were still recorded in misclassified categories. The aim of this study is to re-estimate CRC mortality rate for Iranian population, using Bayesian approach in order to revise this misclassification. Methods: National death Statistic Reported by the Ministry of Health and Medical Education (MOH&ME) from 1995 to 2003 included in this analysis. The Bayesian approach to correct and account for misclassification effects in Poisson count regression with a beta prior employed to re-estimate the mortality rate of colorectal cancer in age and sex group. Results: According to the Bayesian re-estimate there were between 30 to 40 percent underreported mortality records in death due to colorectal cancer and the rate of its cancer mortality moderately increased through recent years. Conclusion: Our findings suggested a substantial undercount of colorectal cancer mortality in Iranian population. So healthcare policy makers who determine research and treatment priorities on death rates as an indicator of public health priorities should notice to this underreported data.

#### **P-159 GYNECOLOGIC CANCER CHARACTERISTICS IN WESTERN BLACK SEA REGION OF TURKEY**

I. Arikian, A. Barut, M. Harma, M. Harma, U. Bayar, L. Eskici, S. Dogan

Zonguldak Karaelmas University Faculty of Medicine Department of Obstetrics and Gynecology

Introduction: Gynecologic cancers are the most common etiologies for cancer morbidity and mortality after breast cancer in women.

Methods: We evaluated 135 gynecologic cancer cases retrospectively those we have diagnosed, treated and followed at our gynecologic oncology clinic. Results: The mean age of the cases was 55,1 (23-81). The distribution of the cases were as; 42,2% endometrium cancer, 40,7% ovarian cancer, 10,3% cervix cancer and 3,7% vulvar cancer. The most common histologic types were 85,9% adenocarcinoma for endometrium cancer, 38,1% serous papillary carcinoma for ovarian cancer, and 71,4% squamous cell carcinoma for cervix cancer. Conclusions: Our clinic is a tertiary center for gynecologic oncology at the western part of Black Sea region of Turkey. Therefore this study is important in the evaluation of regional characteristics of gynecologic cancers in this region of Turkey.

#### **P-160 SELF REPORTED DIABETES TYPE II AND RISK OF COLORECTAL CANCER**

A. Safaee, B. Moghimi-Dehkordi, S. Fatemi, M. Pourhoseingholi, V. Mohsen, A. Pourhoseingholi, N. Fatemeh, M. Zali

Research Center for Gastroenterology and Liver Disease, Shahid Beheshti University of Medical Science, Tehran, Iran

Introduction and Objective: In recent years, many studies employed and found an association between type 2 diabetes mellitus and colorectal cancer. Although increased risk of colorectal cancer in individuals with Non Insulin Dependent Diabetes Mellitus (NIDDM) has been observed in previous studies, limited information is available on the colorectal cancer associated with NIDDM in Iran. The purpose of this study was to define colorectal cancer risk associated with diabetes mellitus. Methods: The present study was designed as an unmatched case control study. Cases were 393 patients with histologically confirmed colorectal carcinomas and 393 controls were randomly selected among the healthy participants in a health survey. To control potential confounding factors such as sex, age, smoking habits and Body Mass Index (BMI), multiple logistic regression models was fitted to obtain Odds Ratio of colorectal cancer and the corresponding 95% CIs, according to history of diabetes mellitus. Results: Overall, 86 (10%) cases versus 15 (1.7%) controls gave a history of diabetes mellitus. The corresponding multivariate OR was 6.77 (CI 95%: 3.84- 11.92) indicating that having a positive history of diabetes mellitus increases one's risk of colorectal cancer about six-fold. The risk of colorectal cancer was slightly increased for women ( $p < 0.05$ ). Current smokers were at a higher CRC risk (OR=2.83, CI95%:2.13-3.76) than never smokers. Conclusion: We found a strong positive association between NIDDM and prevalent colorectal cancer. In summary, these findings provide further indirect epidemiological evidence for the hypothesis that hyperinsulinaemia may be important in the development of colorectal cancer.

#### **P-161 INCREASED RISK FOR COLORECTAL CANCER IN PATIENT'S FAMILY**

A. Safaee, B. Moghimi-Dehkordi, S. Fatemi, E. Maserat, G. Somayeh, V. Mohsen, M. Pourhoseingholi, M. Zali

Research Center for Gastroenterology and Liver Disease, Shahid Beheshti University of Medical Science, Tehran, Iran

Introduction and Aims: In around 10 to 15% of all CRC cases, a positive family history of colorectal cancer is observed. Although increased risk of colorectal cancer in individuals with family history of the disease has been observed consistently in past studies, limited information is available on the colorectal cancer associated with family history in Iran. The purpose of this study is to define colorectal cancer risk associated with family history cancer. Methods: The present study was designed as unmatched case control study. Cases were 393 patients that histologically confirmed colorectal carcinomas and 393 controls were randomly selected among the healthy participants in a health survey. The family history was extracted from a standard history form completed by the patient or from the record created by a health care provider. Mantel-Haenszel Odds Ratio was computed for removing the confounding effect of age and sex. Results: A positive family history was reported by 36.4% and 24.4% among cases and controls, respectively. Colorectal cancer risk increased two-fold for subjects reporting any first degree relative with cancer. The adjusted odds ratio was 4.76, indicating that having a positive family history of colorectal cancer among relatives increases one's risk of colorectal cancer about 4.5-fold. Conclusion: According to our findings family history of cancer increases risk of CRC. Due to this fact that there is no current colorectal cancer screening program in Iran, it is recommended that first degree relatives of patients with colorectal cancer should be considered as a priority group for screening programs.

#### **P-162 INCIDENCE OF CHILDHOOD CANCER IN ANTALYA(2003-2007), TURKEY**

H. Karakilinc\*, Y. Tepe\*, E. Aydogmus\*, N. Ozdemir\*\*, O. Top\*\*, D. Akgul Kanalic\*, H. Tosur\*\*\*, G. Ucar Yenigelen\*\*\*, H. Tufekci\*\*\*\*, G. Kurt\*\*\*\*

\*ANTALYA KANSER KAYIT MERKEZI

\*\*AUTF KANSER KAYIT BIRIMI

\*\*\*AEAH KANSER KAYIT BIRIMI

\*\*\*\*ADH KANSER KAYIT BIRIMI

OBJECTIVE: To assess the main epidemiologic characteristics of childhood tumors in Antalya. METHODS: In this study, Antalya Cancer Registry data were used. Incident cancer cases diagnosed between 2003 and 2007 in children (0-14 years) resident in Antalya were included. ICD-O 3 is used for topography and histology coding; CanReg 4 is used for data base and data processing. Tumors were classified according to ICC-3. Incidence rates were calculated as annual rates per million populations. Age-standardized rates(ASR) were adjusted by the world population. RESULTS: A total of 289 children with cancer were registered the study period. Total ASR was 158.5 per million. Male to female ratio was 1:1.04. The most frequent diagnostic groups were leukemias(33.6%), followed by CNS/intracranial/spinal tumors(16.6%), lymphomas(14.6%),neuroblastoma/sympathetic nervous system tumors(10.4%)and germ cell tumors(5.9%). CONCLUSIONS: These results can provide of the required information for control planning of childhood cancer in Mediterranean region of Turkey.

#### **P-163 REVIEW BELIEFS AND BEHAVIOR OF IRANIAN WOMEN ABOUT CERVICAL CANCER SCREENING, HAMEDAN, IRAN, 2009.**

L. Jamshidi

Faculty member of Islamic Azad University \_ Hamedan branch, Hamedan, Iran.

Cervical cancer, the second most common cancer in women. Women may be caused by contact with environmental factors or to increasing age are suffering from cervical cancer. Cervical cancer a preventable cancer is known. Method: In this Descriptive study of 360 women randomly by technology interview forms were studied Results: Most of the research units in the age group 30 to 50 years old and Married. 37.6% never pop smear test was not done. Only about 12.4% pop smear test had sufficient knowledge. Conclusion: Since more than half of the Iranian population and women comprise the other hand, women's main focus as a family are considered, so efforts to public education about the prevention and early diagnosis methods and the disease of cancer is important.

#### **P-164 THE CLINICAL AND HISTOPATHOLOGICAL FEATURES OF PATIENTS WITH CERVIX CARCINOMA:AN ANALYSIS OF A SINGLE INSTITUTE**

A. Ulas\*, E. Arpac\*, A. Dizman\*\*, T. Yetisyigit\*, F. Paksoy\*, S. Tokluoglu\*, A. Durnali\*, G. Celenkogu\*, Y. Guney\*\*, N. Alkis\*

\*Ankara Oncology Teaching and Research Hospital,Department of Medical Oncology

\*\*Ankara Oncology Teaching and Research Hospital,Department of Radiation Oncology

Introduction: Cervix carcinoma is one of the most common cancers affecting women and accounts for 6% of female cancers. And also the 3rd cause of death due to cancer among women. Patients: We evaluated 457 patients histopathologically diagnosed as cervix carcinoma (FIGO stage IB1-IVb) between 2004-2008 in Ankara Oncology Hospital. All patients were administered concomitant chemoradiotherapy or radiotherapy alone. We retrospectively analyzed the clinical and histopathological features of the patients and also the efficacy of primary chemoradiotherapy and adjuvant radiotherapy(or chemoradiotherapy).Results: Median age of patients was 53.45(range:23-88), median follow-up 30 months(6-48 months). 60.5%(n=274) of patients were stage IIa-IIb, 51.9% (n=236) of patients were inoperable that were administered primary radiotherapy and chemoradiotherapy. Rest 219(48.1%) patients were operable and were administered adjuvant radiotherapy(or chemoradiotherapy). 65.7% (n=142) of operable patients had undergone radically hysterectomy and pelvic-paraaortic lymph node dissection. Histopathological diagnosis of 84.2 % (n=335) of all patients was squamous cell carcinoma. Parametrial involvement was in 75.5% (n=345) and lymphovascular involvement was in 73.4%(n=335) of all patients. At follow-up the most common recurrence region(25.4%) seen in patients was locoregional lymph nodes. 23.5% of patients developed distant metastases (lung, liver and bone). With primary chemoradiotherapy local control of disease was achieved in 23.3%(n=54) of patients without recurrence. 27.4%(n=125) of all patients were lost of follow-up after primary radiotherapy, 30.8%(n=140) of patients died and 18.6% (n=82) of patients were followed-up with stable disease.Conclusion:In our study we observed that concomitant chemoradiotherapy decreased the local recurrence and distant metastasis in patients with cervix carcinoma.

#### **P-165 CUTANEOUS MELANOMA AS A SERIOUS PROBLEM IN POLAND**

J. Marcinkowski\*, A. Dyzmann-Sroka\*\*, M. Trojanowski\*\*

\*Poznan University of Medical Sciences

\*\*Greater Poland Cancer Center (GCC)

Introduction and objectives: During last 20 years (between 1987-2007) cutaneous melanoma incidence in Poland doubled (when analyzing standardized rates). Methods: Data from Greater Poland Cancer Registry and Polish National Cancer Registry. Crude rates were calculated based on the population data obtained from the Central Statistical Office. For the purpose of calculation of standardized rates \\\"Standard world population\\\" was used. Results: Every year about 160 000 new cases of melanoma are diagnosed worldwide. Almost 80% of them are in North America, Europe, Australia (the highest incidence of melanoma) and New Zealand. During last 20 years (between 1987-2007) cutaneous melanoma incidence in Poland doubled (when analyzing standardized rates). In 1987 this type of cancer was the 20th cause of cancer incidence in men and 16th in women. In 2007 it was appropriately on 11th and 13th position what shows an increase especially in men. That's why GCC has organized one day action of whole-body skin examinations. 158 persons were examined. As a result 3 skin melanomas and 2 non-melanoma skin cancer were diagnosed. Conclusions: Cutaneous melanoma is becoming a serious problem worldwide and in Poland. That's why organized preventive actions needs to be taken.

### **P-166 INFLAMMATORY BREAST CANCER, WHICH PARTICULARITY IN ALGERIA?**

A. Hayette\*, S. Bouzbid\*\*

\*faculty of medicine Annaba Algeria

\*\*Epidemiological service Ibn Sina Hospital Ibn Rochd Hospital

Introduction: inflammatory breast cancer (IBC) is distinctly aggressive form of breast cancer with intensified loco-regional evolution, and frequently occurring and metastatic spread. Purpose: we will review those epidemiologic features, clinico-pathologic and evolution parameters. Patients and methods: female patients with breast cancer were included into the study at the center Ibn-Rochd –Annaba, Algeria, between January 1, 2005 and December 31, 2008. We examined medical records and pathology reports to obtain information. We compared the number of patients with and without inflammatory signs "PEV" for each category of each potential risk factor. Results: 721 patients were recruited, among them, 92 patients (12%) had an IBC. Age was similar in both sub group of patients (45 vs 46 years), 19% have extensive diseases at time of diagnosis IBC vs 6% in the non IBC patients. The menopausal status was (49% in IBC vs 65%), the delay of presentation is more than 12 months in IBC sub group vs 6 months in the non IBC. The infiltrating ductal carcinoma are clearly the most common forms of breast cancer, the size of tumor is more than 5 cm in 68% of IBC vs 22,3% in the non IBC patients, with a higher tumor grade and estrogen receptor negative (58%) in the IBC cases among non IBC. Conclusion: Inflammatory breast cancer is frequent in North Africa. The epidemiological factors are similar in both groups, but we have found more poor factors of prognosis in histological group IBC.

### **P-167 ESTIMATION AND MORTALITY REGISTRY OF CANCER IN BRAZIL**

C. Bessa Pereira Chaves, O. Ferreira Neto, L. Terto Marques Vieira, P. Patury Borba, L. Figueiredo Mathias

Brazilian National Cancer Institute

Cancer is one of the most frequent causes of death in the world. In developing countries diagnosis and treatment onset usually are later than in wealthy population, what makes mortality rates higher. After years assessing cancer frequency and mortality in Brazil, Health Ministry and Brazilian National Cancer Institute came together on establishing some prevention programmes in order to achieve earlier diagnosis and reduce these rates. The objectives of this presentation are sharing data about mortality and estimate rates for cancer in Brazil in 2010. Some major prevention programmes, such as cervix cancer programme, and comparison between former mortality rates to up-to-date will be reported. In some cases these rates reduced, in others they raised. The most frequent cancer types in females are: breast (estimate on 49240 new cases in 2010- estimate risk of 49/100000), cervix (18430- 18/100000), colorectal (14800- 15/100000), lung (9830- 10/100000) and stomach (7680- 8/100000). Prostate cancer is the most frequent in men (52350 new cases- estimate risk of 54/100,000), followed by lung (17800- 18/100000), stomach (13820- 14/100000), colorectal (13310- 14/100000) and esophagus (7890). About breast cancer, we observed mortality rates in two different periods: 1994-1998 and 2003-2007 (15.8 and 15.6, respectively). After large programme for early detection of pre-malignant lesions of cervix, mortality rates decreased between the same periods: 7.2 and 6.8, respectively. We conclude there's still much to do, specially about prevention issues, but numbers show it's necessary to go ahead.

### **P-168 ESTIMATION OF BREAST CANCER BURDEN IN IRAN AND ITS COMPARISON WITH EASTERN MEDITERRANEAN REGION AND THE WORLD**

M. Khayamzadeh\*, R. Salmanian\*\*, F. Abou Alhasani\*\*\*, M. Moradi Lakeh\*\*, M. Naghavi\*\*\*\*, M. Akbari\*

\*Cancer Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

\*\*Iran University of Medical Sciences, Tehran, Iran

\*\*\*Tehran University of Medical Sciences, Tehran, Iran

\*\*\*\*Ministry of Health and Medical Education, Tehran, Iran

Introduction: Health and its equal distribution among people is one of the major factors of society stability. Reaching this goal would be only possible by proper planning in health. Hence, indexes that describe the burden of diseases are necessary for the managers. DALYs (Disability Adjusted Life Years) holds such property. The sum of the lost life because of early death plus disability is quantified by DALYs or the burden of diseases. Breast cancer, the most common cancer in women, should be significantly noticed. Methods: A study entitled "Estimation of the burden of diseases" started in 2003 at Ministry of Health and Medical Education, and the current project which is specified to estimation of the breast cancer burden is a part of that study. This study was the first and only national study for burden of cancers. In this plan a specific methodology is defined to model the cancers in population and specific software is designed. Results: The burden of breast cancer was estimated 0.62 DALYs in every thousand of women population in Iran. Conclusion: The burden of the cancer in Iranian women was low relatively to Eastern Mediterranean region (1.1 DALYs/1000) and the whole World (1.99 DALYs/1000). Age peak of breast cancer in Iranian women was in 45-59 and over 80 age groups. The years lost because of early death or disability in 45-59, 60-69 and 70-79 age groups of Iranian women in every thousand population (DALYs/1000) is lower than the same cases in Eastern Mediterranean region and the World.

### **P-169 CHILDHOOD CANCER INCIDENCE IN KHON KAEN (THAILAND), 1985 - 2008.**

S. Wiangnon\*, S. Kamsa-Ard\*\*, N. Sripaiboonkij\*\*\*, R. Ngamroop\*\*\*\*

\*Department of Pediatrics, Khon Kaen University, Khon Kaen, Thailand

\*\*Cancer unit, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand

\*\*\*Cancer registry, Ramathibodi hospital, Mahidol University, Bangkok, Thailand

\*\*\*\*Department of Biostatistics and Demographic, Faculty of Public Health, Khon Kaen University, Khon Kaen, Thailand

BACKGROUND: The Khon Kaen Cancer Registry (KKCR) started population-based cancer registration officially in 1985, aiming to collect new cases of all cancers throughout Khon Kaen province. There is no incidence report for a long period in the Northeast of Thailand. OBJECTIVE: To study childhood cancer incidence in the Khon Kaen province between 1985 and 2008. METHODS: Population-based cases of cancer in children aged below 15 years registered between 1985 and 2008 were retrieved from the KKCR data. The childhood cancer is classified according to the International Classification of Childhood Cancer (ICCC). Age-standardized incidence rate (ASR) was analyzed and expressed as a number per million by standard method. RESULTS: There were 834 cancer

cases in the period of the study. The overall microscopic verification was 82.7%. Males were affected more frequently than females (M:F = 1.4:1). Overall, ASR for all childhood cancers was 100.6 in boy and 72.9 in girl. The most common cancer is leukemia (ASRs, M/F = 42.6, 25.5), followed by lymphomas (ASRs, M/F = 9.9, 5.8), brain and spinal neoplasm (ASRs, M/F = 17.1, 12.8), germ cell and gonadal neoplasm (ASRs, M/F = 3.3, 5.1), retinoblastoma (ASRs, M/F = 3.3, 3.9), soft tissue sarcoma (ASRs, M/F = 3.9, 3.3), renal tumor (ASRs, M/F = 2.9, 3.7), sympathetic nervous system tumor (ASRs, M/F = 2.1, 2.5), hepatic tumor (ASRs, M/F = 2.9, 1.6), respectively. CONCLUSIONS: The incidence of childhood cancer in Khon Kaen is relatively higher than the one of country report but lower than those of Western countries.

#### **P-170 ONE YEAR AND THREE YEAR SURVIVAL DATA OF LUNG CANCER IN INDONESIA**

N. Sutandyo, E. Suratman, A. Mulawarman, T. Tambunan, E. Suzanna, D. Soeis

Dharmais National Cancer Hospital

Introduction and Objective Lung cancer is the health problem in developed countries and also in developing countries as well. In Indonesia, lung cancer has become in top five rank cancer since 2002. Until now, there is no survival data for lung cancer patients in Indonesian. Thus we want to know one year survival and factor associated in lung cancer patients 2002-2007. Methods We used cross sectional study design and we analyzed survival by using Kaplan Meier analysis. Results In period 2002-2007, we gathered 411 lung cancer patients with aged varies between 20-87 years, mean age and median age were 57.7 y.o and 58.12 y.o respectively. Male patients (313/76.2%) were more frequent than female (98/23.8%). The stage was found: I (2/0.6%), II (5/1.6%), IIIA (10/3.1%), IIIB (66/20.7%), IV (236/74%) and unknown data was 92 (22.4%). One year survival of lung cancer patients in our hospital was 17.3% whereas three years survival was 3.4%. We found male patients, younger and older age, smoking history, advanced stage, and patients who did not have therapy had significant association with poor survival. Conclusions We found male, age > 60 y.o, and advanced stage were the most frequent. One year and three year survival in the last six year were 17.3% and 3.4% respectively. Male patients, age less than 30 years old and more than 60 years old, smoking history, advanced stage has been shown poor prognosis among lung cancer patients. In Addition, patients who accepted therapy has shown better prognosis.

#### **P-171 CLASSIFICATION OF MALE LUNG CANCER PATIENTS IN BURSA BY AGE, TOPOGRAPHY AND HISTOPATHOLOGY IN 2004-2008.**

A. Ercan\*, S. Dallyan\*, G. Karaca\*, S. Ayik\*, Y. Leventoglu\*\*, O. Akan\*\*\*

\*Dep. Of Health Bursa

\*\* d dep. of health, Bursa

\*\*\*ministry of health city manager, Bursa

PURPOSE : Like in many countries primary lung cancer is the most common cancer type in our country. The most common cancer by men is lung cancer. This study took place in 2004 – 2008 in Bursa, where cases were classified by age, location of the tumor and histopathological characteristics MATERIAL-METHOD : Reported cases in cancer registration centre ( including information about cases of death and pathology reports) were coded by the system ICD - 03. After the data quality control data was saved on the computer programme Canreg – 4. The incidence was calculated for every year, patients are grouped by age, topography and histology. RESULTS : 20359 cancer patients are reported in our centre between 2004-2008. Lung cancer was found to be the most common cancer type ( 21% ). In this period cases with the diagnosis of lung cancer were seen more in men as in women ( 89% vs 92% ). Lung cancer was the most common cancer type in male patients. Epidermoid carcinoma was the most common histologic subtype ( 32% ). CONCLUSION : Lung cancer was detected mostly between 45 – 74 years.

#### **P-172 GETTING CANCER ON TANZANIAN HEALTH AGENDA.**

S. Maongezi\*, F. Temu\*\*, M. Njelekela\*\*\*

\*MEWATA

\*\*AMREF

\*\*\*MUHAS

INTRODUCTION: Tanzania estimates over 21,000 newly diagnosed cancers annually; and due to late stage presentation, most have five-year survival rate of <10%. Women present the majority with cancers at Ocean Road Cancer Institute (ORCI) with cervical cancer being the leading cause and breast cancer accounting for 9.3%. Despite challenges of late diagnosis and referrals, resource allocation and prioritization for cancer screening had lacked attention in Tanzania. MATERIALS AND METHODS: Medical Women Association of Tanzania (MEWATA) engaged media; deployed demand creation strategy with sensitization, mobilization and campaigned for public contribution towards mass breast cancer screening. Members of the public donated voluntarily; Screening points were stationed at regional and district levels in seven regions. Local MEWATA teams conducted community sensitization and mobilization. Screening activities received media coverage that included public opinions. MEWATA documented results. 5.3 RESULTS: A total of 63,983 women underwent clinical breast examination, 2,985 (4.7%) had breast lesions of which 152 (5.1%) was cancer. Upsurge of breast cancer patients and women seeking attention reported at ORCI and other hospitals. MEWATA presentations were invited at Ministerial and Presidential forums; The MOH supported campaigns in four regions; coordinated drafting of National Cancer Control Strategy; established a Reproductive-health cancer unit and included campaign results in the annual reports for the parliament. Bugando Medical Center at the lake zone now conducts cancer screening. Stakeholders in cancer are gradually coordinated alongside reviving of Tanzania Cancer Society 5.4 CONCLUSION: Demand creation strategy with sensitization and mobilization efforts resulted into resource mobilization and true public demand of the service that brought cancer into health agenda.

#### **P-173 PATTERN OF CANCER IN ADEN , YEMEN**

G. Abdul Hamid

University of Aden

Aden oncology unit established in December 2007 in Aden to care of cancer patients and register patients as hospital base registry. There were 1029 cases registered in Aden oncology unit during the period from January 2008 – December 2009, All cases were



histopathology confirmed. Results: Male were 439 (42.7%) and female were 590 (57.3%). The most common site in both sexes were digestive organs (23.4%) , breast (22.6%), lymphoma (17.5 %), head and neck (9.3%), and female genital organs (9.0%) The age group with more cancer presentation was 50-59 years in both sexes. More affected were men from 50-69 years, these correspond with colorectal and stomach cancers and women from 40-49 years , these correspond with breast cancers. The mortality rate was high among: Acute leukemia 25/38, lung 10/34, Liver 10/35, NHL 14/109, colorectal 11/113 and nasopharynx 8/37. Conclusion: GIT cancers, breast and lymphoma are the most common sites affected and 50-59 years age group is the most common age affected. Recommendation: Urgent approval of national cancer control strategy and improvement the early detection of cancer and establishment of cancer canter to cover the governorates of Yemen.

#### **P-174 HORMONAL AND GROWTH FACTORS ASSOCIATED WITH BREAST CANCER SURVIVAL IN INDONESIA 2003-2006**

N. Sutandyo, S. Hariyono, E. Suzanna, F. Djuita

Dharmais National Cancer Hospital

Breast cancer survival in general related to several risk factor especially hormonal factor and growth factor, but there are very limited study to determine factors influencing breast cancer survival in Indonesia. This study was initiated to determine the breast cancer survival and related influence factor especially hormonal and growth factor in Indonesia. The study design was cross sectional by reviewing the medical records of 123 breast cancer patients who came to "Dharmais" National Cancer Centre and other hospital in Jakarta (JBC and Kramat 128) between 2003 and 2006. Kaplan Meier method is used to survival analysis and Multivariate Cox Regression logistic analysis to determine the most significant variable. The age range of the study was 21 until 76 years old. Breast cancer risk factors related to hormonal factor were early menarche (16/13%), using hormonal contraceptive > 5 years (13 /41.9%), nulliparous (30/25.2%), and body mass index > 23 (48/47.5%). There were 88 patients (72.1%) had negativity ER expression and 31 (25.4%) patients had HER-2 over-expression. Moreover from Multivariate Cox Regression Logistic, the most significant factors influenced poor prognosis were hormonal contraceptive < 5 years ( $p=0.028$ ; Exp(B)=25.832, CI 95%:1.408-473.858), and over-expression HER-2 ( $p=0.011$ ; Exp(B)=0.017; 95% CI 95%: 0.001-0.4) In this study, we found that using hormonal contraceptive < 5 years and over-expression of HER-2 has poor prognosis. It seems that growth factor more dominant to influence breast cancer survival instead hormonal factor in Indonesia. Thus, further research should be conducted for reassuring this early hypothesis.

#### **P-175 RETROSPECTIVE ANALYSIS OF PATIENTS WITH ESOPHAGUS CANCER TREATED WITH RADIOTHERAPY AND/OR CHEMORADIOTHERAPY**

M. Kandaz, M. Ertekin, B. Erdemci

Ataturk University

Esophageal cancer is the 9th most prevalent malignancy and it takes 6th place in deaths from cancer. 135 esophagus cancer patients that were recorded in Ataturk University Radiation Oncology Department between the years 1995 to 2000 and 2004 to 2008, were retrospectively evaluated. The effects of localization and histologic type of tumor, stage of cancer and treatment modality, patient's sex, age and smoking status, KPS, family history on survival period were evaluated. The median age was 59 , 51.8% of patients were women and 48.2% men. Of patients, 18.5% proximal, 25.2% middle and 56.3% distal part of esophagus was involved. The 95.6% of patients had squamous cell carcinoma and 3.7% had adenocarcinoma. 14.2% were stage II, 66.6% were stage III and 19.2% were stage IV patients. 25.1% of patients underwent surgery, 68.2% were inoperable. 21.5% of patients underwent RT alone, 46.6% had CRT, 6.7% had surgery+RT, 7.4% had surgery+CRT and 17.0% of patients had palliative RT. Overall survival 20 months, median survival period is 13 months, survival rates for 1, 3 and 5 years are 51.3% , 20.1% and %13,4 respectively. In univariate analysis, age, KPS, stage, the treatment modality applied, chemotherapy protocol, number of cures and general survival rate were found to be the prognostic factors related to survival period. There were no effects of gender, smoking status, family history, the localization of tumor and histologic type on the survival.

#### **P-176 CANCER INCIDENCE IN TRABZON PROVINCE OF TURKEY BETWEEN 2003-2007**

N. Ucuncu\*, A. Turkkoylu\*, N. Ustaomer\*, M. Erden\*, H. Cinarka\*\*, M. Dereli\*\*, M. Kapucu\*\*

\*Cancer registry

\*\*Trabzon Province Health Directorate

**INTRODUCTION** Trabzon is situated in northeast part of Turkey. The population of Trabzon is 721.223 (2005). 58.9 % of the population lives in urban areas. Trabzon central cancer registry is active recording which assertion is one of 8 provinces in Turkey. Reference time is year of 2003. Cancer cases in Trabzon province and including neighboring provinces are to be recorded . Since 1995. **METHOD** Cases received by 6 centers in our province, 8 district hospitals, 2 private hospitals and 3 private pathology centers were coded according to ICD-O 3 is used for topography and histology coding. Canreg is used for data base and data processing. **RESULTS** A total of the 7169 cases were registered among residents in Trabzon in the 5 – years period from 1 January 2003 to December 2007, (59,9 %) males and (40,1%) females. Table 1: The Number of Cancer Cases of Women and Man between the Years of 2003-2007 in Trabzon Overall cancer incidence rate was higher in males than in females (age-standardised incidence rates 234.8 and 136.1 per 100 000 respectively) as in Trabzon Cancer Registry's series . Between the years 2003-2007 the number of cases of men and women has increased over the years. Table 2: The Most Common Cancers in Men in Trabzon Between The Years of 2003-2007 in. Trabzon The principal cancers in males were lung age-standardised incidence rate (ASR) 53.4), prostate (ASR 23.7), stomach (ASR 22.2), bladder (ASR 21.4) and colorectal (ASR 16.7) . Skin cancers were also relatively common (ASR 27.6 for cancers except melanoma) . Table 3: The Most Common Cancers in Women in Trabzon Between The Years of 2003-2007 In women , breast cancer was by far the most common malignancy (ASR 27.8); thyroid cancer was (ASR 14.0), stomach cancer was (ASR 13.2) and lung cancer was relatively rare (ASR 4.8) Table: Cancer Incidence Rates of Women and Men Between the Years of 2003-2007 in Trabzon) **CONCLUSION** A total of the 7169 cases were registered among residents in Trabzon in the 5 – years period from 1 January 2003 to December 2007, 59,9 % males (n=4294) and 40,1 % females (n=2875). The overall world population age-standardised incidence rate (ASR) were 234.8 and 136.1 per 100 000 for Trabzon males and females, respectively. Table 2 and Table 3 show the cancer sites, the number of cases within 5-years age groups, ASR for males and females , respectively. In males, the most frequently reported site of cancer was lung (20.0% and ASR 53.4 ) , followed by non- melanoma skin cancer (11.9 % and ASR 27.6), prostate (10.4 % and ASR 23.7) , stomach (9.5 % and ASR 22.2), bladder (9.3 % and ASR 21.4) and colorectal (7.1 % and ASR 16.7) In females , breast cancer was the most common site of cancer (19.4 % and ASR 27.8); followed by non- melanoma

skin cancer(13.9 % and ASR 17.2 ), troid cancer (9.6 % and ASR 14.0), stomach cancer (10.1 % and ASR 13.2) , colorectal cancer (8.2 % and ASR 10.5 ) and lung cancer (3.5 % and ASR 4.8)

### **P-177 BREAST CANCER INCIDENCE AND MORTALITY IN SERBIA**

S. Žilvković, D. Miljuš

Institute of Public Health of Serbia

Introduction and objectives: Breast cancer is the leading cause of cancer incidence and mortality in female all over the world and also in our country. Breast cancer contributes in 15% - 30% of all cancer in females. Breast cancer incidence and mortality analysis in Serbia from 1999 to 2007 year. Method: Descriptive epidemiological method. Source of information for cancer incidence and mortality data was Cancer Registry of Central Serbia for the period 1999-2007. Results: Every year, in average, 3613 women were diagnosed with breast cancer and 1053 annually died from this cancer. Average standardized incidence was 59, 0 /100.000 and average standardized mortality was 20, 4/100.000. During analyzed period standardized incidence and mortality rates increased ( $y=58, 24\pm0,15x$ ;  $y=20,19\pm0,04x$ ). At the date of diagnose more than 20% of women had advanced cancer, from local extended organs, regional lymph nodes to metastasis in one or more organs. Morphologically, 70-80% of breast cancers were invasive ductal cancer and most frequent topography of cancer was lateral upper quadrant. Conclusions: Serbia is the country with middle risk of breast cancer incidence and mortality. A wider activity has to be made in the future to change increased standardized incidence and mortality in Serbia. Key words: breast cancer, incidence, mortality

### **P-178 DESCRIPTIVE CHARACTERISTICS OF COLORECTAL CANCER IN SERBIA**

S. Žilvković, D. Miljuš

Institute of Public Health of Serbia

Introduction and objectives: Malignant tumours of colon and rectum in our country, the same as in most developed countries all over the world, represented second leading localization of cancer, both in male and female. Every year, 2562 people, 1512 men and 1051 women, get diagnosed of colorectal cancer. To estimate possibilities of future colorectal screening programmes in Serbia. Method: Descriptive epidemiological method. Source of information was Cancer Registry of Central Serbia. Results: During the period of observation, from 1999 to 2007, 13604 men and 9455 women were diagnosed with colorectal cancer. Every year, in average, 2562 people, 1512 men and 1051 women get colorectal cancer for the first time, 80% of them are older than 50 years. Average standardized incidence in men was 32, 1/100000 and 18, 9/100000 in women. During this period standardized incidence rate of colorectal cancer increased ( $y=25, 91\pm1,42x$ ) for men and ( $y=15, 80\pm0,61x$ ) for women. Almost every third patient had advanced cancer. Conclusions: Despite the fact that Central Serbia is between countries with middle risk of colorectal cancer incidence, arise of newly diagnosed people every year with advanced colorectal cancer , aims possibility for future colorectal cancer screening programmes. Key words: colorectal cancer, incidence, screening

### **P-179 INCIDENCE AND MORTALITY OF CERVICAL CANCER IN CENTRAL SERBIA**

D. Miljuš, S. Žilvković

Institute of Public Health

Introduction and objectives: After breast and colorectal cancer, cervical cancer is the third primary localization of malignancies in women in Central Serbia. Aim was to follow-up incidence and mortality rates of cervical cancer in Central Serbia. Methods: Source of incidence data was the Cancer Registry in Central Serbia (period 1999 - 2007). Records from the Republic Institute of Statistics in Serbia were used as the source of mortality data. Population estimations data for the same period were used, except for the year 2002 which was used from censuses data. Descriptive epidemiological method was the basis for the research. Standardized incidence and mortality rates ("World population) were indicators. Results: In Central Serbia during this period, in average, 950 new cases of cervical cancer were diagnosed annually. Standardized incidence of this cancer was 23.2 / 100 000. During the same period this cancer was the fourth leading cancer in mortality among females in Central Serbia. Annually, 372 female deaths of cancer were from cervical cancer. Standardized mortality was 7.3 /100 000. Analysis of trend line for standardized incidence and mortality of cervical cancer in Central Serbia, displayed a high increase from 1999 to 2007. Women in Central Serbia in the age group 50-79 were dominated, both in incidence and mortality of cervical cancer. Conclusions: The incidence and mortality risk of cervical cancer was approximately twice as high for females in Central Serbia as for females in Former Yugoslav Republics. Comparing to the European Union above mentioned rates were even higher.

### **P-180 FEATURES OF RECTUM CANCER INCIDENCE IN KAZAKHSTAN**

N. Iginov\*, A. Narbaev\*, S. Iginov\*\*

\*Astana Medical University

\*\*Kazakh Research Institute of Oncology and Radiology

For the first time from 1997 till 2005 in Kazakhstan had been registered about 9,550 patients with the rectum cancer (RC) that had made 3.9 % in structure of malignant new growths, occupying the 9th place. The number of men – 4,527 (47.4%) and women – 5,023 (52.6%). Age incidence rates at all population of Kazakhstan had unimodal character of growth with peak at 70 years and over ( $54.0\pm2.00/0000$ ). The same was observed at men ( $81.2\pm2.00/0000$ ) and at women ( $42.2\pm2.00/0000$ ). Thus in the given age group increasing of disease at men in 1.9 times higher than at women ( $p\leq0.05$ ). Crude rate (CR) and standardized (the world standard, WS) incidence rates of RC all population for the studied period had made  $7.1\pm0.4$  and  $7.2\pm0.10/0000$ , accordingly, and in dynamics tended to growth. At men the CR of RC had grown from  $6.3\pm0.2$  (1997-1999) to  $7.7\pm0.20/0000$  (2003-2005) and WS had grown from  $8.5\pm0.2$  to  $9.6\pm0.20/0000$ , accordingly. At the same time the CR of RC at women also have grown from  $7.0\pm0.2$  to  $7.5\pm0.20/0000$  (WS – from  $6.3\pm0.2$  to  $6.4\pm0.20/0000$ , accordingly). However rates of increase at men ( $T=+0.52\%$ ) were in 2 times higher, than at women ( $T=+0.26\%$ ). The general growth of this disease of all population was interconnected with changes of age incidence rates. So, growth of incidence rates of all population among people of 70 years and also people who over 70 ( $T=+2.8\%$ ) was caused by growth of disease among men of the given age ( $T=+1.12\%$ ), the same was with women ( $T=+2.46\%$ ). Growth of incidence rates at all population in 65-69 years ( $T=+3.43\%$ ) was interconnected with growth of incidence rates at men ( $T=+4.66\%$ ) and women

( $T=+2.44\%$ ) in this age group. At all population in 55-59 years the growth ( $T=+2.31\%$ ) was connected with growth of RC among men ( $T=+4.28\%$ ) and women ( $T=+0.75\%$ ). As a whole the general growth of incidence of all population of republic basically was caused by growth at the age of 55 years and over that age, as the general total factor of growth in the specified age groups at all population ( $T=+9.04\%$ ) had appeared high, and growth occurs because of men where the total factor of growth ( $T=+13.1\%$ ) was almost in 3 times higher, than at women ( $T=+4.47\%$ ). So, this was the epidemiological feature rectum cancer in Kazakhstan.

#### **P-181 AGE-SPECIFIC INCIDENCE RATES OF CERVIX UTERI CANCER IN KAZAKHSTAN**

G. Iqisinova

Kazakh Research Institute of Oncology and Radiology

In Kazakhstan from 1999 till 2008 had been registered 11,333 cases of cervix uteri cancer (CUC). Thus high relative density of patients has been established in 40-59 years (48.3%). Middle age of patients decreased from  $54.0 \pm 0.6$  years (1999) to  $51.3 \pm 0.5$  years in 2008. The incidence rates of this disease at the age about 30 years had made  $1.2 \pm 0.04$  (95% CI= $1.1-1.30/0000$ ). Incidence rates in 30-39 years in comparison with age group till 30 years had increased in 14.3 times and had made  $17.2 \pm 1.1$  (95% CI= $15.0-19.40/0000$ ). The difference was statistically significant ( $p<0.05$ ). In 40-49 years incidence had made  $28.1 \pm 0.9$  (95% CI= $26.3-29.90/0000$ ) that was in 1.6 times higher than the data of the previous age ( $p<0.05$ ). The age incidence rates in 50-59 years was statistically significantly ( $p<0.05$ ) above disease in 40-49 years and had made  $35.0 \pm 1.1$  (95% CI= $32.9-37.10/0000$ ). In 60-69 years the maximum incidence rates of CUC –  $35.8 \pm 0.9$  (95% CI= $33.9-37.60/0000$ ). Incidence rates in age group of 70 years and over also had made  $32.6 \pm 1.2$  (95% CI= $30.2-35.00/0000$ ). Thus the difference of incidence rates in two last groups in comparison with age of 50-59 years had appeared not essential ( $p>0.05$ ). Age incidence rates grew in dynamics, except disease at the age of 60 where trends decreased ( $T_{60-69}=-1.9\%$  and  $T_{70+}=-2.9\%$ ). High rate of a gain had been established in 30-39 years ( $T_{30-39}=+6.7\%$ ). Thus, for the studied period was noted the tendency to «rejuvenation». Age incidence rates of CUC in Kazakhstan had unimodal growth with peak in 60-69 years.

### **Screening**

#### **P-182 EFFECT OF TEACHING AND PREPARATION IN WOMEN ANXIETY IN PROCEDURE OF MAMMOGRAPHY**

T. Ahmari, A. Kachooei, Z. Karimian

Qom university of medical science

Background: Breast cancer is a noncontagion disease resulting in death among women. Mammography is one of the screening tests that causes anxiety in spite of negative results in most cases. Objective: this study was conducted to investigate teaching and preparation on womens anxiety referred to Izadi mammography center in Qom. Method: This study was a randomized controlled clinical trial. Simple sampling was fulfilled and 160 women without previous mammography were assigned to counseling and control groups randomly. Two groups was adjusted in demographic variables. The data was collected by standard Beck questionnaire. Software spss was applied to analys the findings and statistical tests included pair –t test ,independent t-test , $\chi^2$ ,manvitny and wilcoxon. Results: Mean and standard deviation of anxiety score was  $10/9 \pm 5/25$  in counseling group and  $21/15 \pm 8/4$  in control group that was significantly lower in counseling group ( $p<0/001$ ). Also in counseling group , anxiety score after counseling was significantly lower than before counseling ( $p<0/001$ ). Conclusion: This study showed effective role of midwives counseling on decreasing the anxiety before mammography so it is suggested to consider the counseling in preparatory programs of mammography .

#### **P-183 SERUM FREE LIGHT CHAIN ASSAY IN SCREENING AND PROGNOSTIC VALUE FOR PLASMA CELL DISORDERS**

V. Radovic

Institute Hemofarm AD

The and serum immunoglobulin free light chain (FLC) assay measures levels of free  $\kappa$  and  $\lambda$  immunoglobulin light chains. The serum FLC assay in combination with serum protein electrophoresis (PEL) and serum immunofixation electrophoresis (IFE) is sufficient to screen for pathological monoclonal plasmaproliferative disorders other than AL, which requires all the serum tests as well as the 24 hour urine IFE. If a diagnosis of a plasma cell disorder is made, a 24 hour urine for PEL and IFE is essential for all patients. The serum FLC assay should be measured at diagnosis for all patients with monoclonal gammopathy of undetermined significance (MGUS), smoldering or active multiple myeloma, solitary plasmacytoma, and AL amyloidosis.

#### **P-184 A STUDY ON THE EFFECTS OF THE BREAST SELF EXAMINATION (BSE) TRAINING WHICH IS GIVEN TO THE WOMEN WHO ARE AT THE AGE OF 20-60**

E. Durualp, G. Ozaras, F. Civelek, B. Gul, M. Unsal

Cankiri Karatekin University School of Health

In this research, it is aimed at defining the application of “BSE” and at determining the effectiveness of the “BSE” application. The sample of the research are the 220 women who are at the age of 20-60 and who live at the centre of Cankiri and who consented to participate in the research. The data is gathered through “Woman Information Form”. “BSE Training Programme” which is prepared by the researchers is applied after the pre-test. One month after the training, women, as post-test are tested one more time with the “Woman Information Form”. On the analyses of the data process, “chi square” and “Wilcoxon” are used. In the research, 6.4% are having a medical treatment about breast cancer, 72.3% of them don't have even a relative who has the breast cancer, 91.8% heard

something about "BSE", 88.2% of them are capable of applying "BSE" if they are taught what it is. It has been found that the subjects, before the training, they got 84.2±26.7, but after the training they got 94.0±16.4. And it is found out that there is a meaningful difference ( $z=-7.75$ ,  $p<0.001$ ) between the pre-test&post-test. After the research, it is found out that the training which is given to the women has a very important effect to increase the information of women about "BSE". And it is suggested that the health trainings are necessary for the early diagnosis of breast cancer and breast self-diagnosis of the disease, and the women should be trained about the subject.

### **P-185 EFFECTIVENESS OF PAP SMEAR SCREENING IN DETECTING CERVICAL SQUAMOUS CELL CARCINOMA AND HIGH GRADE SQUAMOUS INTRAEPITHELIAL LESIONS IN KELANTAN, MALAYSIA**

A. Aziz\*, M. Che Ayob\*\*, N. Othman\*\*\*

\*Pathology Department, School of Medical Sciences, Universiti Sains Malaysia,

\*\*Hospital Raja Perempuan Zainab II, Kota Bharu

\*\*\*Pathology Department, School of Medical Sciences, Universiti Sains Malaysia

A study on all cases diagnosed as CIN II, CIN III and squamous cell carcinoma by histopathology. All the cases from 2002 to 2006, seen in Hospital Universiti Sains Malaysia and Hospital Raja Perempuan Zainab II were collected. For each case, the cervical cytology results were traced. The cytology results were divided into 3 categories: concordant, minor discordant and major discordant. Concordance rate between cytological diagnoses and histopathological diagnoses was determined. Smears from the minor discordant and major discordant categories were traced and the smears were subjected to rescreening. There were 182 cases of CIN 2, CIN 3 and invasive squamous cell carcinoma diagnosed by histopathological examination. We found that only 56% of the cases had a previous Pap smear. Of the patients who had received Pap smears, 63.7% of the cytological diagnoses were concordant, 17.6% were in the major discordant category and 18.6% were in minor discordance with the histopathological diagnoses. The concordance rate between the histopathology and Pap smears was statistically significant ( $P<0.05$ ). In 18(70%) smears the revised diagnoses were changed. The false negative rate was 17.6% and the sensitivity of Pap smear was 82.4%. In 23.5% of cases, the pap smears were used for diagnosis rather than for screening. We noted there is a higher diagnostic error in laboratory that has a higher workload. In conclusion, Pap smear is effective in detecting high grade squamous intraepithelial lesions and squamous cell carcinoma with a high sensitivity. The false negative rate is within acceptable range.

### **P-186 POPULATION BASED CERVICAL SCREENING PROGRAMME IN USAK PROVINCE**

E. Ercihan, C. Ercihan, A. Kaya, S. Keskin, D. Baklan Iyiol, R. Kurden

usak devlet hastanesi patoloji

**INTRODUCTION AND OBJECTIVES:** Cancer of the uterine cervix is the second most common cancer in the developing countries. Cervical cancer can be prevented by screening women systematically through organized population based programmes. Screening aims to detect the disease at the precancer stage when it is amenable to simple treatment and cure. **METHODS:** The program period was planned to be 2 years. In the programme midwives, nurses, medical practitioners were trained. All women an age range 35-40 were visited in their homes by the midwives of the health care centre and were informed the programme. The women are presenting to health care centers, mother and child health care polyclinics (ACSAP) and cancer early diagnosis and screening centers (KETEM) and having their smears taken. A total number of 1964 cases with an age range 35-40 were screened between February and December of 2009. Papanicolau smears were taken in the health care centers, ACSAP and KETEM between February and June of 2009, and only in the KETEM between July and December of 2009. Papanicolau smears, including ectocervical and endocervical samples, were taken by nurse and midwives, fixed in 95% ethanol and stained Papanicolau methods. Exclusion criteria consisted of following: pregnancy, the presence of vaginal bleeding, use of vaginally applied medication during the 3 days prior to sample collection, and sexual intercourse in the 24 hr prior to the examination. Pap . Pap smears were reviewed by pathologist according to 2001 Bethesda classification. **RESULTS:** All of the smears were processed and examined. A great majority of the smears (91.3 %) were found to be satisfactory, while only 172 (8.7%) were found be unsatisfactory for evaluation. Analysis of satisfactory cervical smears revealed cervical epithelial cell anomalies in 98 cases (5.4 %); of these cases 77 (4.2 %) had atypical squamous cells undetermined significance (ASC-US), 3 (0.2 %) atypical squamous cells cannot exclude high grade intraepithelial lesion (ASC-H), 10 (0.6 %) low grade intraepithelial lesion (LSIL), 7 (0.4 %) high grade intraepithelial lesion (HSIL), 1 (0.05 %) atypical endocervical cells. **CONCLUSION:** KETEM, ACSAP and health care centers play a great role in national population based cervical screening. Health workers should be trained and provided with information-education-communication materials.

### **P-187 USE OF VISUAL INSPECTION FOR CERVICAL CANCER SCREENING IN RURAL XINJIANG PROVINCE, CHINA**

S. Husaiyin\*, M. Lin\*\*, Y. Qiao\*\*\*, M. Niyazi\*\*\*\*

\*Xinjiang Uygur Autonomous Region People's Hospital; Cancer Hospital and Institute, Chinese Academy of Medical Sciences; Fogarty International Clinical Scholars Program

\*\*Cancer Hospital and Institute, Chinese Academy of Medical Sciences; Fogarty International Clinical Scholars Program; Washington University in St. Louis, School of Medicine

\*\*\*Cancer Institute and Hospital, Chinese Academy of Medical Sciences

\*\*\*\*Xinjiang Uygur Autonomous Region People's Hospital

**Introduction/Objectives:** The rural Hotan region of Xinjiang Province, China has a high incidence of cervical cancer, estimated at 17.97 per 100,000 people. This high rate is likely due to the lack of access to cervical cancer screening. We used both Visual Inspection with Acetic Acid (VIA) and Lugol's Iodine (VILI) as alternative cervical cancer screening tools in this low-resource area. **Methods:** From 2007 to 2009, we screened women between the ages of 30 and 59 years from Bagh and Lop Counties in Hotan. VIA/VILI were used as primary screening tools, and women with positive findings received colposcopy and directed biopsies. Lesions received appropriate treatment. VIA/VILI negative and CIN I women were re-screened the following year using the same protocol. **Results:** Of the 7026 women invited, 5565 (79.2%) agreed to be screened (average age 42.5 years). The first screening year, we found 17 (0.3%) cervical cancer, 29 (0.52%) CIN III, 11 (0.19%) CIN II, and 17 (0.3%) CIN I cases. The second screening year, we found 0 cervical cancer, 4 (0.08%) CIN III, 7 (0.15%) CIN II, and 11 (0.19%) CIN I cases. First round screening with VIA/VILI successfully detected 83.6% (57/68) of the CIN2+ cases and all of the cervical cancer cases. **Conclusions:** VIA/VILI can be

successfully implemented as an alternative screening tool for cervical cancer in low-resource areas due to its ease of implementation and training, low cost, and immediate results.

#### **P-188 IZMIR CANCER EARLY DETECTION, SCREENING AND EDUCATION CENTER (KETEM)**

A. Cokmez\*, N. Ozen\*\*, D. Simsek\*\*, K. Atahan\*, F. Aktas\*, E. Tarcan\*

\*Izmir Ataturk Training and Research Hospital

\*\*Izmir KETEM

**Introduction and Objectives:** Breast cancer is the most commonly diagnosed cancer among women. The incidence of breast cancer increases specifically after the age of 50. The main determinant in the treatment of breast cancer is still early diagnosis. Hence breast cancer screening programmes are being implemented in Turkey as in rest of the world. **Methods:** Since 1999, Izmir Ketem has been carrying out breast cancer screening programme. This poster reports 2007-2009 screening results. The screening programme started in July 2007 and ended in July 2009. Target population was determined as 2500 women between ages 50-69. 2010 women who were invited by phone accepted the invitation and had breast examination and mammography. In addition to physical examination and mammography, 1147 women had USG, 44 had surgical consultation, 29 women had biopsies and from 1 women nipple discharge specimen was taken. **Results:** As a results of screening and histological testings, 1900 women were detected with normal breast tissue, 63 women with basic cyst, 24 women with fibroadenoma, 2 women with intraductal papilloma, 11 women with susceptible lesions with suggested follow-up and 10 women were diagnosed with breast cancer. Tumors of the 10 women diagnosed with breast cancer were all non palpable tumors detected with mammography. Average pathological tumor size was detected as 12.1mm and 2 of the cases had metastatic axillary lymph nodes. **Conclusions:** The screening programme which aims at reducing the death rate of breast cancer has been carried out with high participation in our center and breast cancer cases have been diagnosed at earlier stages at which death rates are the lowest, hence not necessitating additional high cost treatments.

#### **P-189 RISK ASSESSMENT FOR BREAST AND CERVICAL CANCER AND THE USE OF SCREENING SERVICES**

A. Acikgoz\*, G. Ergor\*\*

\*Dokuz Eylul University Oncology Institute

\*\*Dokuz Eylul University Medical School Dept of Public Health

**Objectives:** Early diagnosis has a major role in the prognosis of breast and cervical cancer. The aim of this study was to assess the risk status of women 35-69 years of age using risk assessment models and the prevalence of mammography and Pap smear. **Methods:** The sample of this cross sectional study consisted of 227 women in 35-67 years of age who reside in Balçova district of Izmir. A questionnaire was used to collect data. Gail model and Tyrer-Cuzick model was used to assess the risk for breast cancer and model developed by Harvard School of Public Health was used for the assessment of cervical cancer risk. **Results:** 41.3% of the women over the age of 40 had mammography exams every two years. The five year risk for breast cancer was high in 15.8% of women according to Gail model and ten year risk was high in 21.7% according to Tyrer-Cuzick model. Being in 60-69 age, having less education and not being in menopause were risk factors for not having mammography according to logistic regression analysis. 52% of women had Pap smear at least once. The risk level in 70% of the women was lower than average, 22.1% was average and 7.9% was higher than average risk. As the risk of cervical cancer increased getting Pap smear decreased. **Conclusion:** The results of the study show that awareness on breast and cervical screening should be raised. Additionally, risk status of women should be assessed and referred to screening appropriately.

#### **P-190 DO TURKISH NURSING AND MIDWIFERY STUDENTS TEACH BREAST SELF-EXAMINATION THEIR RELATIVES ?**

A. Ozkan, A. Tuna Malak, H. Pinar Turk, M. Caglar, A. San Turgay

Canakkale Onsekiz Mart University School of Health Sciences

**Aim:** To describe health beliefs and breast self-examination practice of Turkish female nursing and midwifery students. To describe teaching BSE of their mothers, sisters, relatives by students. **Design:** The study was designed as a definition survey. The data were obtained from 113 participants, including nursing and midwifery students (n=113) in third and fourth class and their mothers, sisters, relatives in Turkey. **Methods:** Data were collected by using a personal data form, knowledge evaluation form for BSE (Maurer 1997) and the Champion's Health Belief Model Scale. Number percentage, Chi-square test were used in the evaluation of the data. **Results:** Students learned breast cancer and BSE in their lesson one or two years ago. Knowledge level scores of the students were  $52.34 \pm 9.63$  (min:25, max: 75). Rate of having regular BSE was 32.7%. When health belief scale assessed; the average of susceptibility was  $7.52 \pm 2.62$ , seriousness was  $21.83 \pm 5.30$ , benefit was  $16.73 \pm 4.45$ , barrier was  $22.33 \pm 6.44$ , confidence was  $40.28 \pm 6.67$  and medical motivation was  $26.55 \pm 4.22$ . The rate of having regular BSE and benefit, barrier scores were compared, they were statistically significant difference ( $p < 0.05$ ). They had given BSE training 91.3% (n = 106) their mother and sisters, 42.6% (n = 48) relatives, 6.2% (n = 7) friends, 5.4% (n = 6) patients. **Conclusions:** Knowledge about breast cancer and BSE repetition training programs should be planned for nursing/midwifery students. Their susceptibility, belief and attitudes, medical motivation with BSE should be increase. Therefore it is very crucial to provide the services for the early detection.

#### **P-191 THE STUDY OF DISCREPANCY OF CERVICAL CANCER SCREENING STRATEGIES IN UYGUR WOMEN OF XINJIANG IN CHINA**

L. Li\*, M. Niyazi\*, Y. Qiao\*\*

\*Department of Gynecology, Xinjiang Province Hospital

\*\*Departments of Epidemiology, the Institute of Science and Techonology of China/Peking Union University

**Objectives:** To find the best strategies for rural area in China by studying the discrepancy of different cervical cancer screening strategies in Xinjiang Uygur Women. **Methods:** There are 883 Uygur women in Xinjiang selected randomly in 2006. All women

accepted the self sampling HPV test, Physician-sampling HPV test, Liquid based cytology test, VIA (Visual Inspection with Acetate) , For the women with positive result of any test, the necessary biopsy directed by colposcopy was given. Results: The biggest discrepancy are caused by VIA and cytology. In the discrepancies overvalued by VIA ,the discrepancy of VIA which has mistaken normal as low grade lesion is highest ( $P=0.000$ ).In the discrepancies overvalued by cytology, the discrepancy of cytology which has mistaken normal as ASCUS is highest ( $P=0.000$ ) .HPV test can decrease the discrepancy overvalued by cytology with ASCUS ,whatever physician collected sample ( $P=0.000$ ) or self collected sample ( $P=0.000$ ) were given.The biggest discrepancy overvalued by VIA and cytology with high grade lesions are 25-29 years old and above 40 years. The discrepancy underestimated by VIA with normal but CIN2+ actually occurred at 30-34 years and 45-49 years old. The discrepancy underestimated by cytology with ASCUS but CIN2+ actually is 45-49 years old. Conclusions: The best cervical cancer screening strategies is HPV test combined with cytology, whatever physician collected sample or self collected sample are done. For the women of different ages, the discrepancy overvalued or underestimated need to be considerate.

## **P-192 THE STUDY OF THE RELATIONSHIP BETWEEN HPV INFECTION AND HIGH INCIDENCE OF CERVICAL CANCER IN XINJIANG UYGUR WOMEN**

L. Li\*, M. Niyazi\*, Y. Qiao\*\*

\*Department of Gynecology, Xinjiang People's Hospital

\*\*Department of Cancer Epidemiology, Cancer Institute, Chinese Academy of Medical Sciences/Beijing Union University

Objectives: To explore the mechanism of high incidence of cervical cancer related to HPV infection in Xinjiang Uygur women.

Methods: There are 883 Uygur women selected in Xinjiang randomly for cervical cancer screening. All women accepted Physician-sampling for HPV test in four sites which are anus, lower vaginal, upper vagina, and cervix respectively. The women with HPV positive result accepted necessary biopsy in the direction of colposcopy. Results: The prevalence of high-risk HPV infections in total sites in Xinjiang Uygur women is 10.65%. The highest HPV prevalence in upper vagina and cervix (7.35% and 7.25%) are highest in various sites. In CIN2 or above CIN2 lesions, HPV infection prevalence in multi-sites is higher more than in one site. In CIN2 or above lesions, most HPV infection sub-type is HPV16 infection alone (77%) ,followed by multiple HPV infections (17%) . There are positive relationship between multiple HPV infection and the grade of CIN( $r=0.943$ ) or the differentiation of cervical cancer( $r=0.99$ ).The ratio of multiple HPV infection in the cases of cervical cancer above 40 years old is higher than the cases below 40 years old ( $P=0.000$ ) .Conclusions: The high incidence of cervical cancer in Xinjiang Uygur women is related to the multi-site high risk HPV infection and multiple HPV infection, especially multiple HPV infection with HPV16.The age has impact to the multiple HPV infection in Xinjiang Uygur women.

## **P-193 HPV PREVALENCE AND TYPE-DISTRIBUTION IN NORMAL AND ABNORMAL CERVICAL SMEAR: A CROSS-SECTIONAL STUDY IN EASTERN COAST OF MALAYSIA**

N. Othman\*, N. Othman\*, H. Fauzi\*\*

\*Department of Pathology, School of Medical Sciences, Universiti Sains Malaysia

\*\*Institute for Research in Molecular Medicine, Universiti Sains Malaysia

Introduction: Human papillomavirus (HPV) infection has been identified as major risk factor for cervical intraepithelial neoplasia (CIN) and invasive cervical cancer. Most HPV infections resolve spontaneously, while persistent infection with oncogenic types, namely HPV 16 and 18 is necessary for CIN to occur and progress to cancer. Objectives: The aim of this study was to determine the prevalence and type-distribution of HPV infection in normal and abnormal smears from cervical scrapings. Methodology: Cervical scraping was collected from women attending clinics for their routine Pap smear screening. A total of 635 samples were collected. HPV-DNA was detected by PCR using MY09/11 and GP5+/GP6+ primer sets. HPV genotyping was done by cycle-sequencing. Results: Prevalence of HPV infection detected by nested MY/GP+-PCR was 4.4%. The overall prevalence of high-risk HPV (HR-HPV) in abnormal Pap smears was 53.8% (7/13). Twenty one of the 28 PCR-HPV positive specimens were typed and revealed 6 different genotypes; 85.7% ( $n = 18$ ) were HR-HPVs and 14.3% ( $n = 3$ ) were LR-HPVs. HPV-16 was by far the most prevalent genotype (57.1% of all HPVs, representing 1.9% of total samples), followed by HPV-58 (19.0%); and HPV-6 (9.5%). There were equal incidences of HPV-18, 33 and 61 (4.8%). Our results indicate that there are 13 samples that had a high probability to develop into cancer since CIN are largely associated with HPV type 16 and 18. Conclusions: These results provide valuable information for the management of HPV infections in Malaysia, both in terms of future strategies of screening and vaccination.

## **P-194 INVESTIGATION OF SOCIO-DEMOGRAPHIC CHARACTERISTICS AFFECTING CERVICAL CANCER EARLY DIAGNOSIS ATTITUDES OF TURKISH WOMEN**

A. Babacan Gumus\*, O. Cam\*\*, A. Tuna Malak\*

\*Canakkale Onsekiz Mart University, School of Health Sciences

\*\*Ege University, School of Nursing

Objective: Women's cervical cancer early diagnosis attitudes are affected by various demographic and sociocultural factors. The purpose of this study was to investigation the socio-demographic characteristics affecting cervical cancer early diagnosis attitudes of Turkish women. Method: This study has been carried out in an area covered by three neighborhood primary health care clinics in Bornova, Izmir. Data were collected from 390 women over 18 years of age who were selected using a stratified random sampling method. Data were collected by Introductory Information Form and The Scale of Attitudes Toward Early Diagnosis of Cervical Cancer (SATEDCC). t test, ANOVA and Duncan test were used for analysis of data. Results: The mean age of the women was  $38.64 \pm 12.73$ . There was a significant difference in SATEDCC total mean score of women according to age ( $F=4.070$ ,  $p=0.000$ ), family type ( $F=4.657$ ,  $p=0.003$ ), education level ( $F=6.426$ ,  $p=0.000$ ), perceived economic status ( $F=9.956$ ,  $p=0.000$ ), have information about cervical cancer ( $t=2.814$ ,  $p=0.005$ ), status of go to gynecologic examination ( $t=4.366$ ,  $p=0.000$ ), have a previous Pap smear test ( $t=2.795$ ,  $p=0.005$ ). Conclusion: The results of this study showed that sociodemographic characteristics were effective on cervical cancer early diagnosis attitudes of women.

### **P-195 EFFECTIVENESS OF BREAST CANCER SCREENING**

M. Eryilmaz\*, O. Karahan\*, B. Sevinc\*, S. Ay\*, S. Civcik\*\*

\*Konya education and research hospital

\*\*Konya Cancer Early Diagnosis, Screening and Education Center

INTRODUCTION: As the world's most common cancer among women, early diagnosis and treatment of breast cancer has great importance in terms of human health and economy. PURPOSE: Our aim is to evaluate the efficacy of breast cancer screening in Konya Cancer Early Detection Screening and Education Center (KETEM) since 2006. MATERIAL AND METHOD: We evaluated the data obtained from 83 breast cancer cases operated at Konya Education and Research Hospital between 2007 and 2009. Patients were evaluated in two groups (group 1: KETEM, group 2: general surgery clinic) in terms of age, clinical stage at the time of diagnosis, tumor localization and diameter, lymphatic involvement, distant metastasis, methods used in diagnosis, pathological diagnosis and stage. FINDINGS: The patients were between 31-79 years of age. The mean age was 54.6. The tumor was localized in upper lateral quadrant in 62.2% of cases. The rate of patients diagnosed at stage 1 was 25% in group 1 and 7.1% in group 2 ( $p=0.002$ ). 62.5% of patients in group 1 and 21.4% of patients in group 2 were diagnosed at N0 stage ( $p=0.003$ ). 75% of patients who were diagnosed at stage 1 at KETEM were under 50 years of age. RESULTS: By screening, at KETEM breast cancer can be diagnosed at earlier stages. Considering the facts that, 75% of patients diagnosed at early stage are under 50 and 20% of breast cancer cases are under 40 in Turkey, breast cancer screening age should be decreased to 35.

### **P-196 KONYA CANCER EARLY DIAGNOSIS, SCREENING AND EDUCATION CENTER (KETEM), SKIN CANCER SCREENING RESULTS**

Y. Koyuncu\*, C. Kutlugun\*\*, M. Eryilmaz\*\*\*, O. Karahan\*\*\*, B. Sevinc\*\*\*

\*Konya Cancer Early Diagnosis, Screening and Education Center

\*\*Konya Training and Research Hospital Dermatology Clinic

\*\*\*Konya Training and Research Hospital General Surgery Clinic

OBJECTIVES: Skin cancer is one of the most common types of cancer. We aimed to report our results for skin cancer screening diagnosed at Konya Cancer Early Detection and Screening Education Center (KETEM) MATERIAL AND METHOD: Between July 2007 and December 2008, at Konya KETEM 11604 cases with or without suspicion of cancer examined by whole body scanning. Excisional biopsy was done for 101 suspicious lesions. Results were reported by pathology clinic. FINDINGS: Of the cases whom biopsy was done, 18 (17.8%) were male and 83 (82.2%) were female. Mean age of males were  $41.06 \pm 19.68$  and females were  $50.89 \pm 12.76$ . Twenty-four of 101 cases had skin cancer. 19 (79.2%) of them were Basal Cell Carcinoma (BCC), 2 (8.3%) of them were Squamous Cell Carcinoma (SCC). Two (8.3%) cases had Malignant Melanoma (MM) and one case (4.2%) had Keratoacanthoma. Considering all cases that biopsy had been done, rate of non-melanoma skin cancer (NMSC) was 21% and melanoma rate was 1%. Mean age of cases with NMSC was  $60.22 \pm 11.76$  and  $59 \pm 16.97$  for cases with melanoma. RESULTS: Our results of skin cancer screening show that KETEM has an important role in detection of real skin cancer incidence and early detection and treatment of skin cancer.

### **P-197 CANCER DETECTED THROUGH POPULATION BASED CANCER SCREENING IN TURKEY IN 2008**

N. Ozgul, M. Gultekin, E. Olcayto, M. Tuncer

Turkish Ministry of Health, Cancer Control Department

Objective: To evaluate the number of cancers detected by population based screening in Turkey within last year. Method: We had initiated a population based cancer screening programme for cervical and breast cancer through our new cancer screening centers (KETEMs). Until 2009, within two years we had constructed 84 KETEMs. This is only 30% of our target number (84/280). Active KETEMs started to screen breast and cervical cancer depending on our national standards. All the participants are asymptomatic women who were invited to cancer screening programmes through letters. Results: In 2008, KETEMs performed 109.741 mammographic screening. Of these people, 610 (0.5%) were detected to carry breast cancer and admitted to a specialist doctor for further treatment accordingly. In year 2008, KETEMs had taken Pap smear samples in about 109.126 women. Of these, 1515 (1.3%) were detected to carry ASC-US, 67 LSIL, 54 ASC-H and 67 to carry HSIL. Further evaluations of these people revealed 153 (0.1%) preinvasive disease (117 CIN I, 12 CIN II and 24 CIN III) and 38 (0.03%) cervical cancer. Conclusion: Population based cancer screening programme within KETEMs revealed 610 breast cancers, 38 cervical cancers and 153 preinvasive cervical cancers. All of these patients were unaware of their disease and their cancers were diagnosed upon population based screenings. KETEMs play an important role for early cancer detection and their numbers should increase within immediate near future to cover the whole country.

### **P-198 RISK OF BREAST CANCER AND EARLY DETECTION PRACTICE IN A SAMPLE OF WOMEN IN IZMIR, TURKEY**

E. Ceber, G. Mermer, F. Okcin, D. Sari, M. Demireloz, A. Eksioglu, F. Ogce, D. Cakir, G. Ozenturk

Ege uni Izmir Ataturk saglik Yuksek Okulu

Background: Breast cancer is currently second common cancer in Turkish women and the incidence continue to rise. The objective of the research is to determine breast cancer risk among women over 50 years of age living in Izmir, Turkey. Methodology: A cross-sectional study, carried out in Mansuroglu district in Izmir. All were enrolled in the study in a 20-month period in 2007-2008 and asked to complete questionnaires. A total of 1313 women over 50 years of age who are living in Mansuroglu region were selected for interview using simple random sampling. The risk of breast cancer was determined using the modified Gail model. The risk was calculated by a computer program, a tool provided Breast Tool Assessment by National Cancer Institute. Results: The risk of breast cancer factors among women over 50 years of age living in Mansuroglu region was 17.7%. The mean age of participants was 60.1 years. All of the participants had menopause and 45.2% had a family history of cancer. The percentage of participants who performed BSE was 71.4% while the percentage of women who regularly performed BSE was 19.9 % and 58.9% of women had had a mammogram. Conclusion: The risk of breast cancer and frequently early detection practices was generally low among women over 50 years of age. Despite more frequent healthcare utilization in recent years, the rate of participation in breast cancer screening is still too low. This rate depends on a balance between information demands, awareness of risk factors, and personal risk perception.

## **P-199 KETEM'S ROLE FOR POPULATION BASED CANCER SCREENING: A MODEL FOR DEVELOPING COUNTRIES**

N. Ozgul, M. Gultekin, E. Olcayto, M. Tuncer

The Ministry of Health of Turkey

Objective: To evaluate the role of KETEM (Cancer Early Diagnosis, Screening and Education Centers) for cancer screening in Turkey. Method: KETEMs have been established in the last two years across Turkey. Each KETEM contains one digital mammography, one video colposcopy, one 3D ultrasound, LEEP and further equipments for data entry & public education. All staff is trained regularly for cancer related issues. KETEMs accept the patients based on a public screening programme. Each KETEM uses a comprehensive questionnaire to screen the patients and input the data on a centralized computerized data system. Results: In 2008, KETEMs cancer screening activities are as follows: 173.061 breast examination, 60.416 breast sonography, 109.665 mammography, 108.039 Pap smear, 1.304 colposcopy and 9823 ultrasonography. With these activities, KETEMs are found to perform 11% of the whole mamographies performed in Turkey last year. Also, KETEMs are found to perform the 9% of the Pap smears sampled in 2008 all around the country. KETEMs are also reported to educate about 500.000 people for cancer across the country within one year. Conclusion: KETEMs are new centers for Turkey. Despite this, KETEMs performed a valuable amount of cancer screening across the country. In addition to screening, education and awareness programmes are more crucial for the future of our country. After finalizing the establishment of target number of KETEMs, we will be in a much stronger position against cancer in Turkey. KETEM model can be suggested for all developing countries which are facing the future cancer epidemics.

## **P-200 EVALUATION OF PAP SMEAR SCREENING RESULTS IN A NORMAL RISK POPULATION**

A. Karabulut\*, T. Alan\*\*, M. Ekiz\*\*, S. Bayur\*\*, A. Iritas\*\*, Z. Kesen\*\*\*, S. Yahsi\*\*\*

\*Denizli State Hospital, Department of Obstetrics and Gynecology

\*\*Denizli State Hospital

\*\*\*Denizli State Hospital, Department of Pathology

Introduction and objectives: Cervical cancer is the second most common female cancer in the world. In spite of easy accessibility of cervix for inspection and sampling, majority of cases are discovered at an advanced stage. After the introduction of papanicolaou (Pap) test, incidence and mortality rates have decreased dramatically. The aim of this study was to evaluate the frequency of neoplastic abnormalities in the smears in a normal risk population, and to compare demographic differences in subjects with normal and abnormal smears. Methods: Between January 2004 and July 2005, a total of 19 639 patients underwent Pap test. A questionnaire enquiring gravity, parity, age at the time of marriage, smoking status was obtained before the test. Results: Neoplastic abnormalities were detected in 107 (0.54%) of cases, including 0.31% ASCUS (atypical squamous cells of undetermined significance), 0.15% LGSIL (Low grade squamous intraepithelial lesion) and, 0.07% HGSIL (High grade squamous intraepithelial lesion). One case of AGUS (atypical glandular cells of undetermined significance) and one case of squamous cell carcinoma were found. A close relationship between cytological abnormality and viral cytopathic effect was observed ( $r=0.067$ ,  $p<0.01$ ). The age, age of marriage, number of pregnancies and deliveries, and smoking habit did not show statistical difference between cytologically normal and abnormal groups ( $p>0.05$ ). Conclusion: Pap smear is easy to perform, and very informative test providing valuable information. Cytological abnormalities were detected less than those in western population. Unified national programs are needed covering different regions to obtain more precise values in our country.

## **P-201 FREQUENCY OF CERVICOVAGINAL INFECTIONS DETECTED IN CERVICAL SMEARS**

A. Karabulut\*, T. Alan\*\*, M. Ekiz\*\*, A. Iritas\*\*, S. Bayur\*\*, Z. Kesen\*\*\*, I. Cora\*\*\*

\*Denizli State Hospital, Department of Obstetrics and Gynecology

\*\*Denizli State Hospital

\*\*\*Denizli State Hospital Department of Pathology

Introduction and objectives: Evaluation of servical smears gave more detailed information after introduction of Bethesda system in 1988. Besides neoplastic abnormalities, it was possible to obtain information about non neoplastic abnormalities especially infectious agents with this system. In this study, we aimed to investigate the frequency of nonneoplastic abnormalities in the smears in a certain time period. Methods: Between January 2004 and July 2005, a total of 19 639 women underwent Pap test. All smears were evaluated in cytology unit of pathology department, and reported according to Bethesda system for standardization. Results: Inflammation without any microorganism was detected in 7058 (35.9%) subjects. Bacterial vaginosis was the most frequent finding detected in 1633 (8.3%) individuals. Candida albicans, Actinomyces and Trichomonas vaginalis were detected in 1346 (6.9%), 648 (3.3%) and 143 (0.75) of smears respectively. Conclusion: Smears are performed for the screening of cervical pathologies, but in current Bethesda terminology, non-neoplastic cervical abnormalities and diagnosis of microorganisms seen on the Pap smear are also reported in addition to neoplastic findings. Although it is not performed for screening infectious agents, because of high specificity, the treatment need to be given when specific microorganism was detected.

## **P-202 EVALUATION OF BREAST CANCER SCREENING RESULTS IN A TARGET POPULATION**

A. Karabulut\*, T. Alan\*\*, M. Ekiz\*\*, A. Iritas\*\*, S. Bayur\*\*, M. Atesci\*\*\*, S. Cebelli\*\*\*\*

\*Denizli State Hospital, Department of Obstetrics and Gynecology

\*\*Denizli State Hospital

\*\*\*Denizli State Hospital, Department of Radiology

\*\*\*\*Denizli State Hospital, Department of Surgery

Introduction and objectives: Breast cancer screening by mammography and clinical breast exam (CBE) are commonly used for early tumor detection after age of forty. Ultrasonography is usually added to screening protocol in case of increased breast density or breast mass. In this study we aimed to increase awareness of population for the breast cancer screening program and evaluate breast cancer screening results of women in a target population. Methods: Two family physicians working in central Denizli were selected with simple random sampling method to educate women for self-breast examination and inform them about breast cancer



screening. All women aging 50 to 69 years were invited to early cancer screening center by phone call. Results: Three-hundred-seventy women fulfilled the entry criteria. Mammography and sonography were performed in 274 (74%) and 67 (18%) women respectively. One-hundred-ninety-seven (53%) women underwent CBE. On mammographic examination 214 cases were reported as having normal mammographic pattern. Dense breast pattern was detected in 33 subjects, macrocalcification in 17, microcalcification in 5, and a mass in 2 patients. Breast cancer was detected in one patient with asymmetrically increased breast density on mammography and positive CBE findings. All other mammographic findings were related to benign diseases. Conclusion: Although mammography is used for screening purposes, CBE is important to increase cancer detection rate. Self-breast examination on monthly bases will probably be very helpful to increase the success of screening programs.

### **P-203 IS IT CURRENTLY FEASIBLE TO SCREEN COLORECTAL CANCERS IN TURKEY**

N. Ozgul, M. Gultekin, E. Olcayto, M. Tuncer  
Ministry of Health of Turkey

Objective: National guidelines of colorectal cancer screening was established last year. Accordingly, all citizens between 50-70 years of age, will be invited to fecal occult blood testing specific to Heme antigen. Patients with positive results will then be admitted to colonoscopy. This study aims to evaluate the man-power and technical background of Turkey to initiate a population based screening on colorectal cancers. Method: Available number of colonoscopies and the medical staff who are able to perform colonoscopy are retrospectively evaluated. Each data is prospectively recorded by the questionnaires applied to Health governors of Turkish provinces. Blood occult tests specific for human Heme antigens were accepted to have a 10% positivity. Hospital working days is accepted as 250 per year and the target population is planned to complete the first round of screening in two years. Results: Total number of colonoscopies available was 758 while total number of medical physicians who are performing colonoscopies was 1305. Target population was around 24 million. Screening of these people will reveal a positive test in around 2.400.000 people in two years. This means that 4,800 people will be in need of colonoscopy per each working day. That equals to mean 6,3 colonoscopy per each machine per a day and 3,7 colonoscopy procedure per each physician per day. Conclusion: Current colonoscopy and manpower situation status seems to be sufficient to start a public based colorectal screening programme in Turkey.

### **P-204 WHO SHOULD PROMOTE THE EARLY DETECTION OF BREAST CANCER POPULATION SCREENING PROGRAM?**

J. Marcinkowski, A. Dyzmann-Sroka, A. Kubiak, M. Trojanowski  
Poznan University of Medical Sciences, Chair of Social Medicine

Aim. The analysis of promotion activity effectiveness in the Early Detection of Breast Cancer Population Screening Program. Material and methods. Own experience from carrying out the Program tasks in the Wielkopolska Cancer Center between 2005-2009. The data from GLOBOCAN 2002, Eurocare-4 Study, Digital Prophylactics Monitoring System, the National and the Wielkopolska Cancer Registry, were used in statistical calculations. Results and conclusions. General practitioners seldom talk with their patients about prevention and preventive examinations. Multidimensional actions are necessary, such as society education, active screening (a rational individual invitations system, maintenance of easy access to screening examinations by refunding them by National Healthcare Fund, their permanent quality control, mammocytobuses reaching areas without stationary MMG units). Essential is also a permanent monitoring of actions promoting the Program, such as: invitations mailing, organization of feasts, cooperation with local authorities and healthcare facilities, publication of articles and media advertisements because they bring good effects. The more cancer cases are diagnosed the more are caught at an early stage whereas without the Program they would remain latent and grow serious.

### **P-205 INVESTIGATION OF THE PAP SMEAR TEST RATE AND AFFECTING FACTORS AMONG WOMEN**

N. Erbil, Y. Tezcan, E. Gur, M. Yildirim, N. Alis  
Department of Nursing, School of Health, Ordu University

Introduction and objectives: To investigate the rate having pap smear test history and affecting factors among women. Methods: The study was conducted as a descriptive and cross-sectional design. The study included women consulting at Gynecology Outpatient Clinic of Birth and Children's Hospital in Ordu province, in Turkey. 397 volunteer women were enrolled non-consecutively in the study after verbal informed consent. The data were collected with a questionnaire form prepared by researchers. The study was made between 20th February 2009 and 29th May 2009. Data of women who had at least one pap smear in her history were compared to those of women who had no pap smear history. Results: It was determined that 24.7% of women heard pap smear test and 11.8% of them had at least one pap smear test in her history. In addition to higher mean age ( $p=0.000$ ), high education level ( $p=0.013$ ), working outside home ( $p=0.000$ ), using of contraceptive method ( $p=0.000$ ), having a Sexually Transmitted Diseases (STD) history ( $p=0.042$ ), positive attitude towards gynecologic examination of women ( $p=0.000$ ), thought herself in cervical cancer risky group ( $p=0.004$ ) and having knowledge of pap smear test ( $p=0.000$ ) were found higher rate in women who had pap smear test history than other women and the differences between groups were found significant. Conclusions: Women's rate of the pap smear test in our study is very low. It is advised to give education and consultancy to women about the

### **P-206 EFFICACY OF TRUSCREEN® TECHNIQUE IN POPULATION BASED CERVICAL SCREENING PROGRAMMES**

I. Kog\*, E. Soylu\*, S. Ebedi\*, F. Kayikcioglu\*, S. Koc\*, M. Gultekin\*\*, N. Ozgul\*\*

\*Etilik Zubeyde Hanim KETEM

\*\*Kanser Savas Daire Baskanligi

Objective: To evaluate the efficacy of TruScreen technique in population based screening programmes Method: 406 asymptomatic consecutive patients were enrolled to undergo a Pap-Smear and TruScreen Test. All patients with abnormal cytology or TruScreen findings was evaluated with colposcopy and biopsies were taken in case of abnormal findings. Results: Median age of the patients was 45,0 (31-69) and median spot count on truescreen was 21,0 (15-26). Of these patients, only 7 patients had an abnormal cytological findings (5 infection and 2 ASC-US). Of these 7 patients, TruScreen evaluation was normal in five and abnormal in only 2

patients with infection cytology. Since the biopsy of these two ASC-US cases was normal, TruScreen evaluation did not miss any cytological abnormality. On the other hand, overall 106 patients had abnormal TruScreen evaluation and remaining 300 had normal TruScreen results. Among these 106 patients, 76 had undergone a cervical biopsy which revealed normal findings in 62 patients, acute cervicitis in 7, HPV Atypia in 1 and LSIL in the remaining 6 patients. All 6 patients with LSIL biopsy had a normal Pap-Smear. Conclusion: All biopsy confirmed preinvasive cervical lesions were detected by TruScreen but was missed by conventional Pap-smear. TruScreen method seems to be an effective strategy in population based screenings; however further studies are needed for a definite conclusion.

## **P-207 THE EFFECTS OF “THEORY OF PLANNED BEHAVIOR” BASED EDUCATION ON THE PROMOTION OF MAMMOGRAPHY PERFORMANCE IN EMPLOYED WOMEN**

S. Niknami\*, E. Hatefnia\*, M. Mahmoudi\*\*

\*Tarbiat Modares University

\*\*Tehran Medical University

Background and Aim: Breast cancer remains the most common malignancy and major cause of death in women worldwide. Mammography is considered the most exact means to detect breast cancer in the earlier stage, which can reduce mortality of the disease. The current study aimed at evaluating the effects of an education program using the Theory of Planned Behavior on promoting mammography performance among employed women aged 35 years and over. Materials and Methods: This survey was a quasi-experimental study which evaluated the effectiveness of an education program to promote attitudinal factors associated with early detection of breast cancer in 220 women aged 35 years and over, who were working in Tehran pharmaceutical factories. Means of data collection was a questionnaire. The obtained data was analyzed by mean of SPSS statistical software (version 11.5) using non-parametrical tests (Chi-Square, Mann-Whitney, McNemar's, Wilcoxon); and  $P < 0.05$  was taken as the significant level. Results: It was found that the mean score of knowledge, attitude, perceived behavioral control, intention and behavior in women regarding mammography in the case group significantly increased and the observed difference in the control group was not significant. Conclusion: Application of the Theory of Planned Behavior has an acceptable influence on promoting mammography behavior. It is, therefore, recommended that education programs apply the theory to promote mammography behavior (in women).

## **P-208 CO-CULTURE OF MESENCHYMAL STEM CELLS AND NEUROBLASTOMA SH-SY5Y CELLS AS A NOVEL ANTICANCER DRUG SCREENING MODEL**

A. Shafigullina\*, M. Yalvac\*\*, N. Blatt\*\*\*, I. Salafutdinov\*\*\*, F. Sahin\*\*, A. Kiyasov\*, A. Palotás\*\*\*\*, A. Rizvanov\*\*\*\*\*

\*Kazan State Medical University, ul. Butlerova 49, R-420012 Kazan, Russia

\*\*Department of Genetics and Bioengineering, College of Engineering and Architecture, Yeditepe University, Istanbul 34755, Turkey

\*\*\*Department of Genetics, Faculty of Biology and Soil Sciences, Kazan State University, ul. Kremlevskaya 18, R-420008 Kazan, Russia

\*\*\*\*Asklepios-Med Bt. (private practice and research center), H-6722 Szeged, Kossuth Lajos sgt. 23, Hungary

\*\*\*\*\*Department of Genetics, Faculty of Biology and Soil Sciences, Kazan State University, ul. Kremlevskaya 18, R-420008 Kazan, Russia,

Introduction. Nowadays a common preclinical in vitro anticancer drug screening model is a monoculture cancer cell lines model NCI60, accepted in 1985. The drawback of the system is the absence of appropriate microenvironment, which is formed by such factors as cell-cell contacts, extracellular matrix and soluble factors. The aim of our study was development of in vitro systems which would allow more accurate modeling of cellular niche to increase efficiency of preclinical anticancer drug assays. Methods: we co-cultured human neuroblastoma cell line SH-SY5Y, labeled by PKH26 (red fluorescent membrane label) together with human Mesenchymal Stem Cells (MSC), labeled by PKH67 (green fluorescent membrane label) on different culture surfaces, coated by poly-L-lysine, Matrigel, fibronectin, gelatin or collagen. Cancer cells viability in co-culture with MSC was determined during oxidative stress (exposure to hydrogen peroxide). Results. MSC and SH-SY5Y co-culture lead to spontaneous cells self-organization: channel-like organization of MSCs and island-like of SH-SY5Y on poly-L-lysine, fibronectin, gelatin, collagen and untreated cell culture plastic. Another type of organization was observed on Matrigel coated surface: space saucer-like structure with flat layer of SH-SY5Y cells surrounding a bulge of MSCs. Co-cultured SH-SY5Y cells had two times higher viability under oxidative stress conditions compared to SH-SY5Y cell monoculture. Conclusion. We demonstrated for the first time self organization of cancer and stem cells during co-culture on various coated surfaces. We developed an efficient in vitro system for studying individual cell populations during co-culture using differential live fluorescent labeling for anticancer drug screening.

## **P-209 HOSPITAL-BASED SURVEY ON THE KNOWLEDGE, ATTITUDES, AND BEHAVIOR OF FILIPINOS ON COLORECTAL CANCER AND SCREENING**

E. Bondocmd, J. Tupas-Edanomod, E. Cortezmd, C. Mapuamsc, R. Lachica, F. Natividadphd

St. Luke's Medical Center

Colorectal cancer (CRC) remains to be a major public health problem globally. In the Philippines, it ranked 3rd among all cancers and fourth among all cancer deaths. The observed lower rates in survival indicate that CRC is diagnosed in its late stage and screening tests are under-utilized in the country. This paper therefore aims to determine the knowledge, attitudes, and behavior of Filipinos seeking outpatient consultations at St. Luke's Medical Center on colorectal cancer and screening. Methods: A total of 322 outpatients, aged 35-75, were randomly selected from rosters of clinic appointments in Medical Arts Building and Cathedral Heights Building Complex and from the Social Service Department. Participants with history of any type of cancer or advanced chronic medical condition were excluded. An interviewer-administered questionnaire was used in the survey. Results: Only half (53%) of the respondents could identify a sign or symptom of CRC; 59.1% could mention a risk factor, however, 41% believed they are unlikely to develop CRC. At least 36% was aware of a CRC screening test, with Ultrasound as the most common answer. Majority (99%) claimed that they haven't gone through any screening test before because they were not medically advised to do so; but if recommended, they are willing to accept CRC screening, especially if it's for free (97.8%). Conclusion: Filipino respondents still lack the education on CRC and its screening. More vigilant information dissemination on CRC and screening programs should be made and offered at affordable costs to encourage participation from the population.

## **P-210 THE PRACTICE OF BREAST SELF-EXAMINATION AMONG FEMALE PRIMARY HEALTH CARE WORKERS**

D. Unver, O. Karaoglanoglu, E. Kaynar Tuncel

Samsun Provincial Health Directorate

Introduction and objectives: Breast Self-Examination(BSE) is a simple and non-invasive method for women for early breast cancer detection starting in their 20s. In this study we aimed to see the practice of BSE and the factors that effecting BSE among female primary health care workers in Samsun. Methods: A descriptive and cross-sectional study was performed by administering a questionnaire to 362(65.9%) female primary health care workers in Samsun in October 2009. Analysis of data was performed by using the chi-square test, chi-square for trend test and Fisher's Exact Test. Results: The ratios of the answers given to "how often perform a BSE" by workers were 32.9%(96), 58.2%(170), and 8.9%(26) for "regularly once a month", "irregularly" and "none", respectively. When BSE performing was grouped into two parts as "regularly once a month" and "irregularly/none", there were no statistically difference between the practice of BSE and occupation, having a BSE education or history of breast cancer among relatives( $\chi^2=0.01, p>0.05; \chi^2=0.01, p>0.05$ ). The relation between increasing practice of BSE with increasing age( $\chi^2_{trend}=4.97, p<0.05$ ); and between having a qualified BSE education(administrative education on BSE models) and practicing BSE "regularly once a month"( $\chi^2=7.16, p<0.05$ ) were statistically different. There were statistically difference between the group practicing BSE "regularly once a month" and giving BSE education to relatives/friends( $\chi^2=13.081, p<0.05$ ) and guiding women to Cancer Early Detecting Center( $\chi^2=6.862, p<0.05$ ). Conclusions: The aim of BSE education is to increase the interest about breast cancer and the habits of BSE among women. As we see in our study to change the habits education must be qualified.

## **P-211 NATIONAL BREAST CANCER SCREENING PROGRAMME IN CROATIA - FIRST RESULTS**

A. Znaor\*, M. Strnad\*\*, S. Predavec\*\*\*, V. Stamenic\*\*\*

\*Croatian National Institute of Public Health

\*\*retired

\*\*\*Croatian Ministry of Health and Welfare

Breast cancer incidence and mortality rates have been increasing in Croatia over the past 30 years, reaching the ASR(EU) of 90.3/100,000 for incidence and 27.8/100,000 for mortality in 2007. At the end of 2006, mammography screening programme was launched as the first national-based cancer screening programme in Croatia. The target population are women aged 50–69, with two years screening interval. The 21 county institutes of public health are in charge of collaboration with mammographic units, distributing invitations and coordination at the county level, while the programme is centrally coordinated by the Croatian National Institute of Public Health. A separate database has been formed for each county, while the central unit can access each of these databases through a common server located at the Croatian Ministry of Health and Welfare. There are 81 mammography units and more than 200 radiologists (double reading is obligatory) participating in the programme. According to the preliminary results of the first round of the programme, 720,983 women were invited, and the participation rate was 58%, but in some counties it exceeded 70%. The number of screen-detected cancers was over 1360 (4.2/1000 mammographies). The number of incident breast cancers in Croatia in 2007 (first year of the screening) in the age-group 50-69 increased by 29% compared to the previous year. Long-term monitoring is needed to evaluate the effectiveness of the programme, however, based on the evaluation of the first screening round, more improvements are being introduced, and higher participation rates are expected in the future.

## **P-212 BREAST CANCER PREVENTION AND EARLY DETECTION IN SUDAN (LOW INCOME – COUNTRIES)**

E. Hasan Ahmed

Lectural at Al Neelain University

Breast cancer represents a major cause of morbidity and mortality in the world. In Sudan, it is the commonest type of cancer among female. Recent statistics in Khartoum Radiation and Isotope center (2000 – 2007), indicate that the number is increased; new cases were diagnosed about 4892. (30%) female and about 193 male 17%) The most significant risk factors are positive family history and parity and the least significant are smoking and alcohol consumption. Optional chances for surviving breast cancer is early detection by mammogram, clinical breast exam (CBE) and breast self exam (BSE In Sudan, we exclude the mammogram, because of the high cost and concerning about BSE and BSE. Over view:Sudan is developing and wide country with different cultures. Also there are war and migration. Discussion:Breast self exam is the best method for early detection of breast cancer in low income – countries. Mammogram is the identical method for detecting breast cancer at early stages

## **Treatment**

## **P-214 FREQUENCY AND PROGNOSTIC SIGNIFICANCE OF THE TEL-AML-1 FUSION GENE IN CHILDHOOD ACUTE LYMPHOBLASTIC LEUKEMIA IN CUKUROVA REGION OF TURKEY**

F. Erbey, M. Komur, I. Bayram, A. Tanyeli

Cukurova University Faculty of Medicine Department of Pediatric Oncology & Pediatric BMT Unit, Adana, Turkey

Purpose: The translocation t(12;21)(p13;q22), which produces the TEL-AML1 fusion gene, is the most frequent chromosomal abnormality in children with acute lymphoblastic leukemia (ALL). We investigated in this study, incidence and prognostic significance of the TEL-AML1 fusion gene in children with ALL in Cukurova region of Turkey. Methods: The authors analyzed 98 children with ALL using the reverse transcription-polymerase chain reaction. Results: The TEL-AML1 fusion gene was detected in 17.4 % of newly

diagnosed and relapsed children with ALL. Presence of the TEL-AML1 fusion was significantly associated with relapsed patients. TEL-AML1 positive patients had a significantly higher rate of relapse compared with TEL-AML1 negative patients. The OS was not significantly different between TEL-AML1 positive and negative groups. Conclusion: These data support that the presence of TEL-AML1 is an un-favorable prognostic indicator in children with ALL in Cukurova region of Turkey.

#### **P-215 QUALITY OF LIFE AND EFFECTIVE FACTORS WHO TOOK GYNAECOLOGIC CANCER DIAGNOSIS AT THE DEPARTMENT OF GYNAECOLOGY AND ONCOLOGY OF GAZI UNIVERSITY, FACULTY OF MEDICINE**

G. Ozaras\*, F. Ozyurda\*\*

\*Ogr. Gor. , Cankiri Karatekin Universitesi Saglik Yuksek Okulu

\*\*Prof. Dr. , Ankara Universitesi Tip Fakultesi Halk Sagligi Ana Bilim Dalı

The aim of this study was to determine the quality of life of patients diagnosed with gynecological cancer, and comparing the quality of life between gynecological cancer patients and control group who were diagnosed with gynecological problems other than gynecological cancer, and investigating some demographic and socio-cultural factors potentially affecting quality of life of patients diagnosed with gynecological cancer. Case group of this study was consisted of 120 inpatient women who were diagnosed with gynecological cancer at the Gynecologic Oncology Department of Gazi University Medical School and control group was composed by 123 outpatient women who were not diagnosed with gynecological cancer. The data was collected through a questionnaire form including basic socio-cultural and demographic characteristics of both study groups and a quality of life scale (Short Form-36, SF-36). Averages of total scores and all components of SF-36 Scale of the case group were significantly low when compared with the control group. Significant differences were determined in the overall score and sub-scales of SF-36 component regarding marital status, educational status, working status, social insurance, caretaker status of individuals that underwent treatment, thoughts of patients about future who underwent therapy ( $p < 0.05$ ). Disease diagnosis and stages of inpatients and outpatients cases do not affect the quality of life of the study groups. Consequently, the quality of life of patients who diagnosed with gynecological cancer is determined to be lower than the patients who were not diagnosed with a gynecological cancer.

#### **P-216 THE SIGNIFICANCE OF SEROUS OVARIAN CANCER HISTOLOGY ON LYMPH NODE METASTASES**

O. Mamula, A. Brncic Fischer, S. Rupcic, H. Haller, M. Krasevic, S. Behrem

Clinical Hospital Center Rijeka

**ABSTRACT** Background The aim of this retrospective study was to evaluate the incidence and the distribution of nodal metastases in relation to the histological subtypes (serous and non-serous) in epithelial ovarian cancer. Methods Patients were treated primarily with upfront surgery, including pelvic and para-aortic systematic lymph node dissection up to the level of the left renal vein, prior to any kind of chemotherapy administration. Dissected lymph nodes were meticulously marked according to their location in the pelvic and para-aortic regions. Patients were classified, according the tumor histology, into two groups; serous (including all cases of mixed histology with a serous component) and non-serous group. Results Inclusion criteria fulfilled 145 patients; 61 and 84 patients had serous and non-serous histology, respectively. Positive lymph nodes were found in 62.3% (38/61) and 13.1% (11/84) of patients in the serous and non-serous histology groups, respectively. There was no difference in positive node distribution in three regions (pelvic and para-aortic regions, below and above the inferior mesenteric artery) between the two groups. The most common site for positive nodes was the para-aortic region with positive nodes in 81.6% (31/38) and 90.9% (10/11) of patients in serous and non-serous group, respectively. Conclusions Our results show the predicting significance of serous histology in lymph node metastases dissemination in patients with epithelial ovarian cancer. However, serous versus non-serous histology has no influence on positive lymph node distribution in the pelvic and para-aortic regions.

#### **P-217 NEWCASTLE DISEASE VIRUS STRAINS (AF2240 & V4-UPM) AS ANTI-LEUKEMIC AGENT IN WEHI-3B MYELOMONOCYTIC LEUKEMIA ANIMAL MODEL INVITRO AND INVIVO**

A. Alabsi

University Darul Iman Malaysia

Newcastle disease virus (NDV) is a member of the Paramyxoviridae that caused severe economic losses in the poultry industry worldwide. Several strains of Newcastle disease virus were reported to induce cytolysis to the cancerous cell lines. There are three types of standard treatment are used for cancer treatment, Surgery, Radiation therapy and Chemotherapy. Other types of treatment are being tested in clinical trials, one of them called virotherapy. In this study the cytolytic effects of local strains of NDV towards WEHI 3B (Myelomonocytic leukaemia) cell line was determined by using microtetrazolium assay (MTT). Cytolytic effects fifty percent (CE50) for cells treated with different titre of Newcastle disease virus as hemagglutination units (HAU) as compared to the untreated cells was estimated after 72 hours. The CE50 for WEHI 3B cell line was 1 HAU and 4 HAU for AF 2240 and V4-UPM respectively. The virus also inhibited cell proliferation. The Acridine-orange and Propidium iodide (AO/PI) staining showed about thirty percent of the cells were induced into apoptosis cell death mode when treated at CE50 titre for both strains. Furthermore, the formation of internucleosomal DNA fragments of the treated cells as DNA ladders were also observed on agarose gels of cell treated with the virus between 24 to 72 hours at CE50 titre. Apoptotic and necrotic cell were also showed by electron microscope. Early apoptosis was also showed by Annexin V flowcytometry method. This study show also cytolytic effect of local NDV strains on BLAB/C leukemic mice (in vivo). This study indicated that local strains of Newcastle disease virus caused cytolytic effect to the leukaemia cell lines in vitro and in vivo.

#### **P-218 THE LEVELS OF PLASMA FIBRINOGEN IN CANCER PATIENTS**

M. Serilmez, H. Oguz Soyduinc, D. Duranyildiz

ISTANBUL UNIVERSITESI ONKOLOJİ ENSTİTUSU TEMEL ONKOLOJİ ANABİLİM DALI

Introduction and Objectives Fibrinogen (Fib) is a 340 kDa glycoprotein synthesised in the liver by hepatocytes and megakaryocytes.

Pathological angiogenesis and coagulation are often occurred in patients with solid tumors, especially in the occurrence of metastasis. Since fibrinogen is a major clotting component of the blood, plays key role in the coagulation system and angiogenesis in tumors. We aimed to analyse the plasma levels of fibrinogen in patients with hematopoietic cancers and solid tumors, who were applied radiotherapy and/or chemotherapy. Methods The study group was consisted of two hundred fifty histologically confirmed cancer patients (non – hodgkin and hodgkin lymphoma, multiple myeloma, kaposi sarcoma, leukemia and lung, brain, head-neck, gastrointestinal system, bone, gynecologic, prostate), who were presenting to Istanbul University, Oncology Institute. The plasma fibrinogen values were determined Coadot 1 analyzer using Pacific Hemostasis fibrinogen kits. Results There was no significant difference in the plasma fibrinogen levels ( $p>0.05$ ) between the patients with hematopoietic cancer and solid tumors. We couldn't find significant difference in the plasma fibrinogen levels of the patients who were applied radiotherapy and/or chemotherapy ( $p>0.05$ ). The median fibrinogen level is 387.5 mg/dl in the all cancer patients and is close to the upper limit of normal range (200- 400 mg/dl). The fibrinogen levels of 116 patients (46.4 %) are higher than 400 mg/dl. Conclusions Activation of the coagulation systems and chemotherapeutic agents cause tumor thrombosis in cancer patients. %46.4 of patients have high fibrinogen levels and this result show that cancer affects coagulation factors.

## **P-219 RENAL FUNCTION TESTS IN CHILDHOOD CANCER**

H. Oguz Soydicin, M. Serilmez, V. Yasasever

Istanbul University Oncology Institute

**Introduction and objectives:** Many anticancer drug therapies are potentially nephrotoxic. Because of blood urea and creatinine will not be raised above the normal range until 60% of total kidney function is lost, creatinine clearance (CCr) are measured whenever careful dosing of nephrotoxic drugs is required. This study was conducted to investigate the urea, creatinine and creatinine clearance levels in childhood cancer patients. **Methods:** 56 children with diagnosis of different solid tumors who were consecutively admitted to the Istanbul University Oncology Institute, during a one and a half years period were examined. All patients were treated combined chemotherapy with platinum and non-platinum based agents with 3-week intervals. Urea and creatinine levels were determined by biochemical autoanalyzer. The creatinine clearance is calculated by formulation. **Results:** There was no significant difference in the serum urea ( $p=0.674$ ), creatinine ( $p=0.843$ ) and CCr levels ( $p=0.615$ ) between the patients who had chemotherapy with platinum based and non-platinum based agents. We couldn't find any significant differences for both three parameters between before, after 1st and 2nd cycles of chemotherapy ( $p>0.05$ ). **Discussion:** We thought that, nephrotoxicity may be occurred in the patients who was reached maximum doses according to cumulative dose cisplatin, but not in the early cycles of therapy with much lower doses. If the urea, creatinine and CCr levels of these patients after all planned chemotherapy cycles were determined, it would help us to have better knowledge of the effect of chemotherapy on renal function in childhood cancer.

## **P-220 PHARMACOGENOMICS OF ANTICANCER AGENTS: USING PREDICTIVE BIOMARKERS TO SELECT PATIENTS WITH COLORECTAL CANCER FOR TREATMENT WITH ANTI-EGFR THERAPIES**

Y. Baskin\*, G. Calibas\*, N. Kayacik\*, S. Sarioglu\*\*, E. Canda\*\*\*, U. Yilmaz\*

\*Dokuz Eylul University, Institute of Oncology, Department of Basic Oncology

\*\*Dokuz Eylul University, Faculty of Medicine, Department of Pathology

\*\*\*Dokuz Eylul University, Faculty of Medicine, Department of Surgery

EGFR is activated by the binding of specific ligands, resulting in activation of the RAS/MAPK pathway. Activation of this pathway induced a signaling cascade ultimately leading to cell proliferation. Targeted therapies directed to EGFR, which inhibit activation of the RAS/MAPK pathway. KRAS is recruited by ligand-bound EGFR to initiate the signaling cascade induced by the RAS/MAPK pathway. The human KRAS oncogene is mutated in over 30% of colorectal cancers. The presence of the KRAS mutations in metastatic colorectal cancer patients correlates with lack of response to the certain EGFR inhibitor therapies. We applied Scorpions real time PCR analysis and allele-specific PCR technologies to detect for 7 somatic mutations within codon 12 and 13 of the KRAS gene. A pathology review and macro dissection to enrich for tumor cells (up to 75%) was performed prior to DNA extraction. The DNA was isolated from 10-µm thick sections of the 39 colorectal tumor tissue were taken from FFPE tissue blocks. The KRAS mutations were presented in 25 of 39 patients (64.1%) and 35.9% were wild type. Our results demonstrate that the real time PCR analysis can be used for detection of somatic KRAS mutations in FFPE clinical samples. The mutation rate (64.1%) in this study was much higher in French (34.4% in 586 cases) and Sweden (37% in 27 cases) studies. As pharmacogenomic tests become more advanced and the significance of various EGFR polymorphisms is discovered, the use of genetic testing to guide therapy may be standard practice in the future

## **P-221 CYTOCHROME P450 2D6 MUTATION IN TURKISH WOMEN RECEIVING ADJUVANT TAMOXIFEN**

K. Altundag, Y. Ozisik, C. Demir, S. Agbaba, T. Kutluk

Hacettepe University Institute of Oncology

**Background:** Tamoxifen (TAM) is metabolized to its active form, endoxifen, by hepatic cytochrome P450 (CYP) 2D6. Cytochrome P450 2D6 is a highly polymorphic liver enzyme of the cytochrome P450 super family that is involved with the metabolism and elimination of frequently used drugs. The CYP2D6 sequence variants are inherited autosomal recessively, but the CYP2D6 duplications are inherited autosomal dominantly. Over 80 types of allelic variants exist. Diminished CYP2D6 function, both by genetic variation or concurrent use of pharmacologic inhibitors, can significantly reduce endoxifen plasma concentrations and may lead to reduced TAM effectiveness. **Methods:** Breast cancer patients who were treated with tamoxifen as adjuvant therapy between November 1989 and November 2009 were included. According to our database 243 patients were analyzed. The mutations were analyzed in all the patients by PCR (C2D6 Vienna LAB, PGX-HIV Strip assay, Austria) from DNA of blood samples and the patients with a genetic variation that ended in an inactive form of P450 2D6 mutations were searched. These mutations were 1795 delT, 1934 G>A and 2637 del A. **Results:** Of all 243 patients, 8 (3.29%) were detected to have a mutation for CYP2D6 indicating poor metabolizers. Genotype frequency was: wt/wt 66.67%, wt/\*4 (28.81%), wt/\*6 (1.23%), \*4/\*4 (2.47%), \*3/\*4 (0.41%), and \*6/\*6 (0.41%). **Conclusion:** CYP2D6 metabolism, as measured by genetic variation and enzyme inhibition, is an independent predictor of breast cancer outcome in post-menopausal women receiving tamoxifen for early breast cancer. Determination of CYP2D6 genotype may be of value in selecting adjuvant hormonal therapy.

#### **P-222 PROGNOSTIC SIGNIFICANCE OF APRIL IN DIFFUSE LARGE B CELL LYMPHOMA**

N. Uzum\*, N. Akyurek\*\*, M. Aytekin\*, I. Barista\*\*\*, M. Benekli\*\*\*\*, A. Uner\*

\*Hacettepe University Department of Pathology

\*\*Gazi University Department of Pathology

\*\*\*Hacettepe University Department of Internal Medicine, Division of Medical Oncology

\*\*\*\*Gazi University Department of Internal Medicine, Division of Medical Oncology

Introduction and objectives: Diffuse large B cell lymphoma (DLBCL) is the most common lymphoma in Turkey and in Western countries. According to the WHO 2008 classification, the prognostic parameters for DLBCL are not certain. APRIL is a member of TNF (tumor necrosis factor) family and binds to TACI and BCMA, which are receptors expressed on B cells. BCMA sustains survival of plasmoblasts and enhances antigen presentation by mature B cells. TACI is a negative regulator of B cells and supports T cell independent antibody responses and class switch recombination in response to APRIL. According to the literature, high APRIL expression correlates with aggressive clinical behaviour in B cell lymphomas. Methods: We re-evaluated 150 cases of DLBCL that were diagnosed between 1999-2009 at the Departments of Pathology in Hacettepe University and Gazi University. Tissue arrays were constructed using 2-4 representative, 1mm diameter cores from each case. 4µm sections were obtained from each tissue array block for immunohistochemical studies. Sections were stained using polyclonal rabbit anti-APRIL antibody (ABCAM, Cambridge) at 1:30 dilution using automatic immunohistochemical system (Ventana Benchmark XT). Staining was scored and correlated with clinical follow up information. Results: In our study 150 patients with DLBCL (F/M=1.14; age range:8-88 years, mean 55.70±17,2) were included. In this group, APRIL expression showed correlation with better prognosis. (p=0.035). Conclusions: APRIL may be used to predict the prognosis of DLBCL patients. However, further studies with higher number of patients are necessary for more conclusive results.

#### **P-223 PROGNOSTIC FACTORS INFLUENCING SURVIVAL OF GASTRIC CANCER IN MULTI-CENTER COLLABORATIVE STUDY IN KOREA DURING 1993-2002**

K. Jung\*, Y. Won\*, H. Shin\*, H. Kong\*, J. Kim\*, H. Chung\*\*, Y. Kim\*\*\*, Y. Kang\*\*\*\*, Y. Bang\*\*\*\*\*

\*Korea Central Cancer Registry, National Cancer Center, Korea

\*\*Severance Hospital, Korea

\*\*\*Korea University Anam Hospital, Korea

\*\*\*\*Asan Medical Center, Korea

\*\*\*\*\*Seoul National University Hospital, Korea

Introduction and objectives: Stomach cancer is the most common cancer in Korea. The aim of this study is to calculate survival rate and evaluate prognostic factors of survival in stomach cancer in Korea. Methods: Among the Korea Central Cancer Registry database from 1993 to 2002, 5,493 patients diagnosed with stomach cancer were selected with random sampling method from the registered cases (27,887) among 4 major medical hospitals, followed up for survival through a 2007. A medical record survey including the family history, stage, tumor size, lymph node invasion and metastasis was done, 222 patients with missing records were excluded. The 5-year relative survival rates were analyzed using the Ederer II method. Relative excess risk regression models were used to derive excess risk ratios and 95% confidence intervals with adjustment for known or suspected prognostic factors. Results: Improvement of survival was observed among male patients (47.7% of 5YRS during 1993-1997 versus 55.6% during 1998-2002), but not seen in female. In relative excess risk analyses, stage, histological type (intestinal, diffuse and others/unknown), sub-site, and age at diagnosis were statistically significant prognostic factors for survival. There were no statistically significant associations between sex, and period of diagnosis. Conclusions: The survival of patients with stomach cancer is increasing especially among male patients. Stage at diagnosis, histological type, and sub-site were the important prognostic factors of stomach cancer survival rates.

#### **P-224 ROLE OF STEM CELLS IN REDUCING THE EFFECT OF ANTI CANCER DRUGS**

M. Yalvac, D. Mercan, S. Aydin, A. Dogan, F. Sahin, A. Rizvanov

Yeditepe University. Faculty of Engineering, Dept. of Genetics and Bioengineering, Istanbul, Turkey

Mesenchymal Stem Cells (MSCs) are promising for autologous transplantation since they are easily obtainable and ethically harmless. Recently it has been found that human third molar tooth germs (wisdom teeth) contain MSCs which are more proliferative than bone marrow MSCs. It has been reported that MSCs are playing roles in tumor growth. By either secreting some chemokines or angiogenic factors MSCs are thought to increase the survival of Tumor cells even during chemotherapy. In this preliminary study, we have isolated and cultured Human Tooth Germ Stem Cells (HTGSCs) with MSC characteristics. During cultivation we have collected condition medium (CM) of HTGSCs when they reached sub-confluency. We cultured SH-SY5Y neuroblastoma cells and exposed to 100µM paclitaxel for 48 hours under normal culture conditions. One group of paclitaxel treated SH-SY5Y cells were also added 20% CM of HTGSCs during incubation. After 48 hours SH-SY5Y cells were analyzed for cell viability using MTS test and for expression of Apoptotic markers Annexin V and Caspase 3 using flow cytometry and Real Time PCR respectively. Our results demonstrated that CM of HTGSCs increased the viability of 100µM paclitaxel treated neuroblastoma cells by 6% also reduced the expression of Annexin V by 60% and Caspase 3 by 50%. Our data suggest that MSCs have to be taken into consideration in Cancer drug research for estimating the in vivo effects of new drugs suggesting that in vitro testing of drugs in co-culture conditions rather than only using a cancer cell line seems advantageous.

#### **P-225 CLINICAL AND PATHOLOGICAL CHARACTERISTICS OF BREAST CANCER PATIENTS WITH HISTORY OF APPENDECTOMY**

M. Isik, B. Sait, S. Aksoy, D. Dede, O. Dizdar, K. Altundag

Hacettepe University Institute of Oncology

Background: Studies showed that the clinical and pathological features of breast cancer with a history of appendectomy are different from the others. Methods: The aim of this study was to investigate clinical and pathological characteristics of breast cancer patients

with a history of appendectomy. Results: Nine hundred and eight five consecutive breast cancer patients presenting at Hacettepe University Institute of Oncology between years 2004 and 2009 were evaluated retrospectively. Past history of having surgery including appendectomy was asked to all patients and was recorded in our electronic data base. Of all study population, 61 (6.2%) had a history of appendectomy. Median ages of breast cancer patients at diagnosis with and without appendectomy history were 51 and 48, respectively ( $p=0.061$ ). 52.5% of patients who had undergone appendectomy and 45.8% of patients without history of appendectomy were post-menopausal at diagnosis ( $p=0.54$ ). There were no statistical differences in the frequency of triple negative patients, estrogen, progesterone receptor and HER2/neu positivity, extra-capsular extension, lympho-vascular invasion, neural invasion and grade of tumors between the two groups. Conclusion: The results of the present study suggest that the clinical and pathological characteristics of breast cancer patients with history of appendectomy are similar.

## **P-226 PALLIATIVE CARE PROJECT OF TURKEY (PALLIA-TURK): A MODEL FOR DEVELOPING COUNTRIES**

N. Ozgul, M. Gultekin, E. Olcayto, M. Tuncer

The Ministry of Health of Turkey

Objective: To announce Turkish National Palliative Care Programme for the next five years as a model for low income countries. Method: A multi-institutional and interdisciplinary series of workshops are performed including ministerial authorities, university academics, hospital managers, clinicians and WHO authorities. A cheap and easily constructible model is prepared (see poster), which will be a first in the world and a good model for the other low income countries. Results: A national cancer control programme is announced including our politics for palliative care (PC). Proper legislations are prepared for the wide spread prescription and accessibility of opioids. A core nucleus of trainees is created and educated repeatedly by national and international workshops. Due to the largeness of the population, a community based PC model based on nurses is chosen for the initial implementation. This model is a first in the world and very cheap to construct a widespread PC model within a very short time. A good collaboration with WHO authorities and exchange programmes among the European countries is also planned for the highest quality of care. Educated core group is used for both further education of the medical staff and also for implementing the initial PC units. Annually four PC units will be constructed in reference oncology centres of Turkey. Conclusion: For the low income countries where preventive or screening strategies against cancer can not be performed, at least such PC models should be performed with respect to human rights, which is very cost effective and easy to construct.

## **P-227 RETROSPECTIVE ANALYSIS OF PATIENTS WITH BREAST CANCER WHO RELAPSED MORE THAN 10 YEARS AFTER THE FIRST DIAGNOSIS**

O. Dizdar, D. Dede, C. Arslan, E. Dogan, S. Aksoy, K. Altundag

Hacettepe University Institute of Oncology

AIM: Patients with breast cancer often relapse within 5 years after the first diagnosis. However, a minority of the patients experience local or systemic relapses after 10 years (late relapse). We have retrospectively evaluated the demographic and clinical characteristics of our breast cancer patients with late relapses who were treated in our clinic. PATIENTS and METHODS: We have detected 19 patients with late relapse among 1037 patients with breast cancer previously treated in our clinic. Clinical features of these patients including age, menopausal status, disease stage and tumor characteristics (estrogen and progesterone receptor status, *cerbB2*, grade) were assessed and compared with patients who relapsed before 10 years. RESULTS: Median age of the patients with late relapses was 46 (range 30-62). Six patients (32%) were premenopausal, 1 patient (5%) was perimenopausal and 12 were post-menopausal (63%) at the time of diagnosis. Median relapse free survival was 12.2 years (range 10.2-16.9 years). No significant difference was found between the patients with and without late relapses in the patient and tumor characteristics (Table 1). Patients with late relapses were more frequently post-menopausal but the difference was not statistically significant ( $p=0.068$ ). Relapse sites of the patients with late relapses are demonstrated in Table 2. CONCLUSION: Late relapses were observed in a minor portion of the patients. Hormone receptor and *cerbB2* expression of many patients were not determined at the time of diagnosis, which subsequently limited statistical analysis. We could not detect any clinical or biological parameter associated with late relapse. A large retrospective study in the literature also could not identify any parameter to predict the occurrence of late relapses. Further studies are needed to evaluate possible molecular predictors of late relapses in these patients.

## **P-228 CLINICAL AND PATHOLOGICAL FEATURES OF EARLY STAGE BREAST CANCER PATIENTS: SINGLE CENTER EVALUATION**

C. Arslan, S. Aksoy, D. Dede, O. Dizdar, Y. Ozisik, K. Altundag

Hacettepe University Institute of Oncology

AIM: To research the clinical and pathological features of early breast cancer patients being followed at our center retrospectively. METHOD: Retrospective data of 986 breast cancer patients admitted to our center between 2004 and 2009 was assessed. Mean ages of the patients at time of diagnosis, histopathologies, menopausal status and localization of the cancer were evaluated. RESULTS: Mean age of the 986 patients evaluated was 49.8 years (20-90). The 842 of these patients were infiltrative ductal (85.3%) carcinoma, 54 were infiltrative lobular (5.4%) carcinoma, and 74 were with other histopathologies (7.5%). The 468 of the patients were at premenopausal (47.2%), 59 were at perimenopausal (5.9%), and 453 were at postmenopausal (45.7%) state at the time of diagnosis. Nodal status was as; N0:44.5%, N1:28.3%, N2:14.6%, and N3:12.5%. The 495 of the patients had cancer at only left (49.9%), 475 had cancer at only right, and 13 had cancer at both breast (1.3%) at time of diagnosis. CONCLUSION: Breast cancer is seen mostly at premenopausal state in our country different from the western countries. This might be related with several hormonal, environmental, and genetic factors. Half of the patients did not have nodal involvement, and that might indicate that the patients were diagnosed at an early stage. Routine use of mamography at screening and awareness of the women for breast cancer are factors associated with early diagnosis.

## **P-229 RELATION BETWEEN DEMOGRAPHIC FACTORS AND HOSPITALIZATION IN**

## GASTROINTESTINAL DISORDERS

A. Pourhoseingholi, M. Pourhoseingholi, M. Vahedi, B. Moghimi-Dehkordi, A. Safaee, E. Maserat, M. Zali

Research Center of Gastroenterology and Liver diseases, Shahid Beheshti University, (M. C), Tehran, Iran

**Background:** The aim of this study is to investigate relation between demographic factors and hospitalization in gastrointestinal disorders. quantile regression uses to analyze the predictors of duration of staying in hospital for patients with GI disease. **Methods:** This study was designed as a retrospective cross-sectional survey included all consecutive GI patients admitted over one year period in a random selected hospital group located in Tehran metropolitan in 2006. Residence, age, sex and type of GI disorders were analyzed respectively using quantile regression. **Results:** A total of 6405 GI tract disorders patients were included in the study, There were 3633 men (56.7%) and 2772 women (43.3%). In the first quartile cancer, liver disease and pancreatic disease were significant. In second quartile there was not relation between sex and duration of hospitalization. In third quartile impact of cancer and liver disease were significant. pancreatic disease was not observed in third quartile. For analyze of desile, Age and pancreatic disease were significant in first desile. **Conclusion:** The results have demonstrated that duration of hospitalization for cancer group was longer than other groups of GI disorders.

## P-230 CISPLATIN PLUS DOCETAXEL COMBINATION IN THE FIRST-LINE TREATMENT OF METASTATIC NON-SMALL CELL LUNG CANCER

A. Kaya\*, S. Buyukberber\*, F. Dane\*\*, A. Isikdogan\*\*\*, B. Ustaalioglu\*\*\*\*, U. Coskun\*, P. Yumuk\*\*, G. Dogu\*\*\*\*\*, N. Ozdemir\*\*\*\*\*, A. Sevinc\*\*\*\*\*, M. Gumus\*\*\*\*, M. Ozkan\*\*\*\*\*, R. Yildiz\*, B. Ozturk\*, M. Benekli\*

\*Gazi University, Faculty of Medicine, Department of Medical Oncology, Ankara, Turkey

\*\*Marmara University, Faculty of Medicine, Department of Medical Oncology, Istanbul, Turkey

\*\*\*Dicle University, Faculty of Medicine, Department of Medical Oncology, Diyarbakir, Turkey

\*\*\*\*Kartal Lutfi Kirdar Education and Research Hospital, Department of Medical Oncology, Istanbul, Turkey

\*\*\*\*\*Erciyes University, Faculty of Medicine, Department of Medical Oncology, Kayseri, Turkey

\*\*\*\*\*Numune Education and Research Hospital, Department of Medical Oncology, Ankara, Turkey

\*\*\*\*\*Gaziantep University, Faculty of Medicine, Department of Medical Oncology, Gaziantep, Turkey

**Purpose:** To evaluate activity and toxicity of cisplatin plus docetaxel combination in the first-line treatment of chemotherapy-naïve patients with metastatic non-small cell lung cancer (NSCLC). **Patients and Methods:** Between October 2004 and July 2008, 186 patients with metastatic NSCLC treated with first-line cisplatin plus docetaxel were retrospectively evaluated in 7 centers. Chemotherapy schedule consisted of cisplatin 75 mg/m<sup>2</sup> iv infusion and docetaxel 75 mg/m<sup>2</sup> iv infusion on day 1 every 3 weeks. **Results:** Median age was 56 years (range, 28-75). Eighteen patients (9.7%) were females and 168 (90.3%) were males with a median ECOG performance status of 1 (range, 0-2). A total of 833 cycles of chemotherapy were administered (median 4 cycles [range, 1-6]). Two patients (1.1%) achieved clinical complete response (CR), 77 patients (41.4%) partial response (PR) and 66 patients (35.5%) stable disease (SD). Median time to disease progression (TTP) was 6 months (95%CI: 5.54-6.46). Median overall survival (OS) was 14.6 months (95%CI: 11.47-17.73). One- and 2-year OS were 55.2% and 19.7%, respectively. The most common grade 3/4 hematological toxicities were neutropenia (n=32 [17.2%]) and anemia (n=4 [2.2%]). **Conclusion:** Cisplatin plus docetaxel combination was effective and safe in the first-line treatment of patients with metastatic NSCLC.

## P-231 EVALUATION OF COMBINATION EFFECTS OF 2-METHOXYESTRADIOL AND METHOXYAMINE ON IUdR-INDUCED RADIOSENSITIZATION IN GLIOBLASTOMA SPHEROIDS

A. Neshasteh-Riz\*, S. Babaloui\*\*, S. Khoei\*\*

\*Iran University of Medical Sciences

\*\* Medical Physics Department, Iran University of Medical Sciences

**Objective:** Glioblastoma is the most common and malignant cancer of central nervous system. Targeting radiotherapy is an effective method toward its treatment. Iododeoxyuridine (IUdR) is a halogenated thymidine analogue known to be effective as a radiosensitizer in human cancer therapy. It is reported that Methoxyamine (MX) potentiates DNA damages in human glioblastoma spheroids with blocking the base excision repair (BER) pathway. DNA strand breaks decrease in large spheroid volume due to failing of IUdR uptake in Go arrested cells presented in large spheroids. Hypoxia-inducible factor-1 $\alpha$  (HIF-1 $\alpha$ ) is a heterodimeric transcriptional factor that is responsible for cell cycle arrest of endothelial cells at Go/G1 phase in tumor cells. It is currently being founded that activation of HIF-1 $\alpha$  can be inhibited by 2-Methoxyestradiol (2ME2) resulting inhibition of cell cycle arrest. In this study we have evaluated the combination effects of 2-Methoxyestradiol and Methoxyamine on radiosensitization of IUdR in glioblastoma spheroid culture. **Materials and Methods:** The cytotoxic damages of DNA in U87MG cell line were compared using colony formation assay. Experiments were performed in large spheroids diameter (350 $\mu$ m). **Results and conclusion:** Evaluation of the effects of IUdR with 2ME2 and MX pretreatment on spheroid cultured cell followed by ionizing irradiation showed more enhancement ( $p \leq 0.001$ ) IUdR induced-radiosensitization. These results may introduce a key roll for 2ME2 in IUdR related studies.

## P-232 LAPATINIB AND CAPECITABINE IS AN EFFECTIVE AND TOLERABLE OPTION FOR METASTATIC BREAST CANCER EVEN AFTER RECIEVED MULTIPLE LINES OF CHEMOTHERAPY

I. Turker, U. Uyeturk, O. Uysal Sonmez, K. Helvacı, U. Yalcintas Arslan, B. Budakoglu, B. Oksuzoglu, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey

**Introduction and objectives:** Life expectancy of metastatic breast cancer (MBC) is limited especially for patients with brain metastasis. We aimed to investigate the effectivity and tolerability of lapatinib (1250 mg/m<sup>2</sup>) and capecitabine (2000 mg/m<sup>2</sup>/day for 14 days, every 21 day) combination regimen (LC) in brain metastatic MBC patients. **Methods;** Six patients with c-erbB2 positive and receiving LC were evaluated from the data files, retrospectively between 2005 and 2009. Patients' characteristics, chemotherapy schedules, clinical and radiological responses or progression, and adverse events were evaluated. **Results;** The median age of 6 patients was 55 (41-59), and 3 of them were premenopausal. Following mastectomy and axillary dissection all but one had adjuvant chemotherapy and radiotherapy but none had had adjuvant trastuzumab. Recurrence or metastasis were observed 2.2 $\pm$ 1.1 years and brain metastasis after 3.6 $\pm$ 1.4 years after the diagnosis. In 4 of 6 patients LC were started as a 3rd line, in the other 1 woman as a 4th line and 1 woman as a 5th line chemotherapy. Median 5 cycles (range: 2 - 9) of chemotherapy was applied. In 4 of 6 patients (66.6 %) clinical and radiological response were seen. Doses were reduced up to 25% gradually in 2 patients due to diarrhea and neutropenia.



Mean progression-free survival was 6.2 months (range: 2-11). Four patients are still alive with a median follow-up of 11 months (range: 2-15) Conclusion; As a result, LC treatment in patients of c-erbB2 + metastatic breast cancer along with brain metastases may be considered as an effective and tolerable treatment option.

### **P-233 TELEPSYCHIATRY: THE EFFECTIVE INTERVENTION FOR IMPROVING CANCER CARE**

E. Maserat, N. Samadi, M. Zali

Researcher of Research Center for Gastroenterology and Liver Disease of Shahid Beheshti

Introduction: Many patients with cancer have depression and anxiety disorder and need to psychiatry treatment. Telepsychiatry is an appropriate and cost-savings option for accessibility to specialists. Telepsychiatry is use of telemedicine and communication technology in mental health service delivery and psychiatric consultation. Telepsychiatry provides increased access to services and has helped enhance the provision of services to patients in any time and anywhere. Aim of this study is telepsychiatry as the effective intervention for improving cancer care. Methods and materials: This study is review survey. Data was gathered from valid medical data base. Results: This review survey opportunities, challenges and ethics issue of application of telepsychiatry in enhancing care in patients with cancer. Conclusions: literatures show telepsychiatry is effective approach for decreasing anxiety, distress and depression levels. Counseling in telepsychiatry increase quality of life of patients. With attention to long period of cancer; this manner is cost benefit method for treatment mental health of these patients.

### **P-234 PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA IN ADULTS: A SINGLE CENTER EXPERIENCE**

N. Babacan, D. Uncu, O. Oksuzoglu, S. Cihan, H. Odabas, M. Seker, N. Kandemir, N. Ozdemir, B. Civelek, N. Zengin

Ankara Numune Training and Research Hospital, Department of Medical Oncology

INTRODUCTION: Primary central nervous system lymphoma (PCNSL) is an extremely rare subgroup of non-Hodgkin lymphoma (NHL). Individuals who are immunosuppressed such as patients with AIDS or those taking certain drugs after organ transplantation, appear to be at increased risk for PCNSL. We analysed clinical characteristics treatment and survival of PCNSL patients who was admitted to our clinic, retrospectively. METHOD: Between November 2001 and December 2009, 9 patients were diagnosed as PCNSL. Survival rates were analysed with Kaplan- Meier method (SPSS version 13.0). RESULTS: Nine (0.1.%) of whole 598 NHL patients were diagnosed as PCNSL. Median age was 58 (35-75) years. None of them had suffered from immunosuppressive background like AIDS, radiotherapy, organ transplantation etc. The most common symptom was headache (n=4), and the most common location was frontal lobe (n=5). The histology of all patients was diffuse large B-cell lymphoma. Four patients were treated with radiotherapy and chemotherapy and two patients with only chemotherapy. While 4 patients had been given high dose methotrexate (>2.5 gr/m2), 2 patients had been given methotrexate and cytosine arabinoside combination. The median follow-up was 7.5 (2-76) months. Median overall survival was 10 months (2-74). CONCLUSION: Despite of using multi-modality treatment strategies, PCNSL patients has still have a poor prognosis.

### **P-235 TREATMENT OF METASTATIC AND NON-METASTATIC EWING SARCOMA FAMILY OF TUMORS: AN EXPERIENCE OF SINGLE INSTITUTE**

E. Arpacı, T. Yetisyigit, A. Ulas, F. Paksoy, S. Tokluoglu, A. Durnali, G. Celenkoglu, N. Alkis

Ankara Oncology Teaching and Research Hospital

Introduction: Ewing sarcoma family tumors (Ewing sarcoma and primitive neuroectodermal tumor) are the second most common primary bone tumors seen in childhood and adolescence and consists of 10% of primary bone tumors. The aim of treatment in Ewing sarcoma is while to cure the disease and also to protect functions and to minimise the sequels can be emerged at the long-time. Purpose: The aim of this study is to analyse treatments of patients with Ewing sarcoma family of tumors that were diagnosed histopathologically in our institute. Patients: In this study we evaluated 34 patients with Ewing sarcoma family of tumors treated in our hospital between 2001-2008. Age range was 14-38, median age 23.17, M:F ratio was 27:7. Results: In 13 of 34 patients primary tumor localisation was axial skeletal system (spine, pelvis), in the others was extremities. Eleven patients had metastatic disease at the onset of diagnosis. Fourteen patients had undergone surgery to get local control of disease. Totally 33 patients received chemotherapy according to the National Cancer Institute (NCI) protocol. Only fourteen patients could complete fifty-one weekly treatment. 25 of 33 patients were administered radiotherapy aimed for local control, 4 patients were administered palliative radiotherapy. Finally, in the treatment of total 18 of 33 patients with Ewing sarcoma family of tumors achievement has employed. Discussion: The best result in the treatment of Ewing sarcoma family of tumors can be achieved with close collaboration between the experienced members of the team of the treatment. In this retrospective study we made a treatment plan with multidisciplinary approach of the teams of medical oncology, radiation oncology and surgeries (orthopedics, neurochirurgia and reconstructive surgery). Because Ewing sarcoma is a systemic disease, micrometastases must be considered to be existed at the onset of the diagnosis of disease. Systemic chemotherapy is effective in the treatment of microscopic and macroscopic disease and also lessen tumor volume. Downsizing of tumor volume increases the efficacy of treatment methods of local control including radiotherapy and surgical resection. And it must not allowed for local control methods to delay systemic chemotherapy because failure of the treatment always is depended on existing of distant metastases.

### **P-236 THYROID PAPILLARY MICROCARCINOMA**

A. Sezer, M. Yagci, T. Sagioglu, M. Irfanoglu

Trakya University, School of Medicine, Department of Surgery

Introduction: Papillary thyroid carcinoma accounts for approximately 85% of thyroid tumors. According to the World Health Organization, papillary microcarcinoma of the thyroid (PTMC) is defined as a papillary thyroid carcinoma (PTC) measuring 10 mm in the greatest dimension. Methods: Between 2005 and 2008, 30 patients with PTMC have been treated and the records of these patients were reviewed retrospectively. Results: The mean age was 45.3 (25-67) years in patients with PTMC [23 (76.6%) women and 7 (23.3%) men]. Total thyroidectomy and near-total thyroidectomy in 26 (86.6%) patients and subtotal thyroidectomy in 4 (13.3%) patients were performed. In 9 (30%) of the patients the tumor was multifocal. Extrathyroidal invasion were found in

3(10%)patients.Distant metastases were not detected in any patients.However,nodal involvement of PMC was identified in 3(10%)patients during surgery and cervical lymph node dissection have also been performed in those patients in addition to a total thyroidectomy.Radioactive iodine remnant ablation treatment was given to 20(66.6%)patients.Mean follow-up time was 32(12-48) months and two patients had recurrent.Conclusion:PTMC is frequently asymptomatic disease and locoregional recurrences have been reported in up to 20%of patients.The prognosis of PTMC is generally reported to be excellent.Despite this,there has been lively discussion about the ideal therapy offered to these patients.Some prognostic factors have been identified,including the presence of LN metastases,capsular involvement,multifocal disease,and the extent of primary surgery.There are some authors who suggest observation without surgery, unilateral lobectomy and total thyroidectomy with radioactive iodine remnant ablation treatment.Optimal treatment of PMC is still controversial.In conclusion,we think that conservative surgical prosedures are appropriate for low-risk PMC.But the treatment of patients with high risk PTMC should be total or near total thyroidectomy followed by radioiodine therapy.

### **P-237 WIRE LOCALIZATION IN NON-PALPABLE BREAST LESIONS**

M. Yagci, T. Sagioglu, A. Sezer, A. Hatipoglu, Z. Hoscokun, I. Coskun

Trakya University, School of Medicine, Department of Surgery

**INTRODUCTION:**The increasing use of mammography in clinical practice and breast screening programs has resulted in the detection of large numbers of nonpalpable malignant lesions.Fine-wire localization biopsy has been the standard procedure for diagnosis of mammographic lesions.**PATIENTS AND METHODS:**We reviewed the medical records and mammograms from all patients who underwent wire localization biopsy between January 2007 and December 2009 at our clinic.Altogether 90 consecutive biopsies were performed after wire localizations.Mammographic abnormalities were classified into 3 categories:masses(M),microcalcifications(C),masses with microcalcifications(MC).**RESULTS:**The mean age was 47.7 years(range 32–69 years);54(60%)patients were in the menopause.Solid masses represented the most common indication for biopsy(n:36,40 %),following by microcalcification in 28 cases(31.1%),and masses with microcalcifications in 26 patients (28.9%)respectively.A total of 17(18,8%)biopsies were malignant: 15 invasive carcinomas,1 ductal carcinoma in situ(DCIS) and 1 lobular carcinoma in situ (LCIS).The age range of patients with carcinoma was 38 to 62 years(mean 49 years).Ten women(58.8%)with malignant lesions were younger than 50years of age. Of the needle-localized specimens,73 revealed benign disease.Fibrocystic changes were the most frequent benign finding and were reported in 30(41%) of cases.The other common benign finding was fibroadenoma,which constituted 20(27.4%)of cases.The remaining benign diagnosis included apocrine metaplasia,sclerosing and florid adenosis,cysts,intraductal papillomas,and fat necrosis.**CONCLUSION:**Mammography remains the “gold standard” for breast imaging and early detection of breast cancer.Results are optimal when the radiologist and surgeon cooperate within the framework of a dedicated screening program.Early detection and treatment leads to improved survival and less disfiguring treatments.Wire-guided surgical breast biopsy was accurate and successful in this series for diagnosing pathology at the the price of invasive technique.

### **P-238 PERITONEAL PSEUDOMYXOMA ASSOCIATED WITH SYNCHRONIC MALIGNANT MUCINOUS NEOPLASIAS OF THE APPENDIX AND SIGMOID COLON.**

T. Sagioglu, A. Sezer, M. Yagci

Trakya University, School of Medicine, Department of Surgery

**INTRODUCTION:**Neoplasms of the appendix that secrete mucin such as adenocarcinoma may rupture,leading to intraperitoneal seeding of the peritoneum and producing the clinical picture of pseudomyxoma peritonei(PMP).A review of the medical literature revealed no cases of PMP diagnosed at time of emergency surgery of ileus due to sigmoid colon cancer.**CASE REPORT:**A 79-year-old man was admitted to our emergency department with vomiting,distension,constipation,and abdominal pain.On examination,marked abdominal distension with mild tenderness and hyperactive bowel sound was recognized.The initial laboratory investigations revealed hemoglobin,10 g/dl;white blood cell count, 6300/l; urea, 60 mg/dl;creatinin, 0,8 mg/dl.Abdominal X-ray showed dilated small and large bowel.Abdominal computed tomography(CT) demonstrated increased sigmoid colon wall thickness with dilated intestine. An emergency laparotomy was performed.Exploratory laparotomy revealed complete intestinal dilatation due to the obstruction of the sigmoid tumor and the synchronous appendiceal mass with peritoneal pseudomyxoma.Left hemicolectomy with hartman procedure and appendectomy was performed.Histopathology examination demonstrated mucinous adenocarcinoma of the appendix in 3cm size and adenocarcinoma of the sigmoid colon.Tumor cells in surgical margins were not available.The postoperative course was uneventful and the patient was discharged at the 9th day of the operation. **CONCLUSION:**Appendiceal tumours are rare,they rarely present as a mechanical bowel obstruction due to synchronous sigmoid colon adenocarcinoma.An unexpected clinical presentation should be considered by clinicians.As part of the formal exploratory laparotomy,in addition to the routine thorough examination of the abdominal viscera, looking for deposits and lymphadenopathy, we suggest the inspection and palpation of the appendix and mesoappendix as part of the intraoperative examination of any gastrointestinal malignancy surgery.

### **P-239 SCLEROSING RHABDOMYOSARCOMA OF NASOPHARYNX: A RARE VARIANT WITH POOR PROGNOSIS**

O. Uysal Sonmez, I. Turker, B. Oksuzoglu, B. Budakoglu, U. Yalcintas Arslan, N. Zengin

Dr. Abdurrahman Yurtarslan Ankara Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey

**Introduction and objectives:** Adult sclerosing rhabdomyosarcoma (ASRMS) is a rare variant of rhabdomyosarcoma with a characteristic histological appearance of small, round cells in a dense, hyalinized stroma and has a poor prognosis. **Case Report:** Forty-four year old woman was admitted to the hospital with nasal obstruction, numbness on her face. On physical examination there was a mass obstructing the nasal coana. Magnetic resonance imaging (MRI) of neck revealed a 7x3x5 cm nasopharyngeal mass. Nasopharyngeal mass also invaded pterygoid muscles, temporal bone, and soft palate and associated with multiple lymphadenopathies (LAP) in the neck. Tumour positron emission tomography (PET-CT) showed pathologically increased FDG uptake (SUV max: 5.75) of this nasopharyngeal mass. Pathological findings of nasopharyngeal biopsy showed small, round cells in a dense, hyalinized stroma with hyperchromatinized nuclei. Alveolar pattern of spindle cells were also seen in reticulin staining. Immunohistochemical study consistent with the diagnosis of ASRMS. Ki-67 proliferation index was over 40 %. Chemotherapy regimen with ifosphamide, mesna and adriamycine (IMA) was planned. After 3 cycles of chemotherapy marked clinical and radiological regression was observed. After 6 cycles MRI of the nasopharynx and neck showed a 8 mm residual mass in right nasopharyngeal recess. Afterwards 54 Gy radiotherapy (RT) to neck and nasopharynx was applied. Control MRI of the nasopharynx

revealed no residual mass. Conclusion; As a result, diagnosis and treatment of ASRMS is challenging. Pathological differential diagnosis is important. IMA treatment may be considered as an effective and tolerable treatment option.

#### **P-240 THE RESULTS OF DUODENOPANCREATECTOMY IN PANCREATIC HEAD CANCER.**

T. Sagiroglu, M. Yagci, A. Sezer, H. Aksoy, A. Hatipoglu, I. Coskun

Trakya University, School of Medicine, Department of Surgery

**INTRODUCTION:** Pancreatic cancer, which has been detecting increasingly every year, is one of the worst-prognosis tumors. Multimodal treatment approach in patients with resectable pancreatic cancer is usually promising but in spite of all therapeutic approaches the survival is not satisfying. **PATIENTS and METHODS:** Between 2007 and 2009, 12 patients with pancreatic head cancer have been treated with whipple procedure at our clinic. The records of these patients were reviewed retrospectively.

**RESULTS:** The mean age at the time of pancreaticoduodenectomy was 54.4 years (range 31-84 years, 4(33.3%) women and 8(66.6%) men). The most frequent symptoms were jaundice and weight loss (50% and 41.6%, respectively). Bilirubinemia evaluation revealed a mean value of 6.9 mg/dL (range 1-30 mg/dL). Six patients (50%) had associated medical conditions. The mean operative time was 360 minutes (range, 240-480 minutes). Resected lymph nodes were histologically positive for metastases in 8 specimens (66.6%). Mean postoperative hospital stay was 15.5 days (range 10-30 days). One patient (8.3%) died in the postoperative period from multiple organ failure after sepsis due to PJA leakage. The most common complications were atelectasia (25%), pancreatic fistula (16.6%) and DVT (16.6%). **CONCLUSION:** Pancreatic cancer is the second most frequent gastrointestinal malignancy, with an extremely poor prognosis. There is a few data about frequency of pancreatic cancer in Turkey. Patients who had underwent PD for pancreatic head cancer per 5-year survival in the range between 15% and 21%. The surgeons should not hesitate to perform pancreaticoduodenectomy whenever indicated although the mortality and morbidity rates are high. However this operation should be performed in experienced centers because of the complexity of the operation and patients should be evaluated with multidisciplinary pattern. Physicians should be aware of the symptoms of pancreas cancer in order to diagnose in resectable period.

#### **P-241 DISTRIBUTION AND SUFFICIENCY OF PAIN CENTERS ACROSS TURKEY**

N. Ozgul, M. Gultekin, E. Olcayto, M. Tuncer

Ministry of Health of Turkey

**Objective:** Palliative care units are a must for a comprehensive control of cancer treatments. There are only few number of palliative care in Turkey. Pain centers can never be a substitute for such centers, however, these centers may be a good step to initialize the palliative care concept across the country. This study aimed to analyze the current status of Turkey with respect to pain centers.

**Method:** Each data is prospectively recorded by the questionnaires applied to Health governors of Turkish provinces. The number of pain centers and the medical staff working in these centers are prospectively collected. Annual number of patients diagnosed with cancer was accepted as 25 million according to Ministerial data. **Results:** There were around 72 pain centers across the country in 33 provinces. Of these centers, 35 were within the governmental hospitals, 31 were in university hospitals and the remaining 6 were involved in private hospitals. Total number of medical staff working in these centers was 334 of which 254 (76%) were medical doctors. 28 (38.9%) centers were located in Istanbul and Ankara. The majority of these centers were in West and Middle Anatolia (56/72, 77.7%) compared to East, South and North regions. **Conclusion:** The number of pain centers may be sufficient for Turkey however these centers are not evenly distributed, concentrated in only big cities.

#### **P-242 INCREASE OF PET-CT CENTERS IN TURKEY: AN ANALYSIS WITHIN LAST DECADE**

N. Ozgul, M. Gultekin, E. Olcayto, M. Tuncer

Ministry of Health of Turkey

**Objective:** PET-CT is a new technology that has been used in oncology centers within three decades. However, the number of PET CT was increasing rapidly in Turkey. This study evaluates the rate of PET CT increase within last years in Turkey. **Method:** The number and localizations of PET-CT devices were collected from the Ministerial databases. **Results:** There was only one PET CT in Turkey until 2004. The numbers started to increase gradually since then, becoming 5 in 2006, 11 in 2007 and 41 in 2009. Of these 41, 7 were in governmental hospitals, 13 was in university hospitals and remaining 21 was in private sector hospitals. 10 device was in Istanbul and 5 was located in Ankara. Except these two metropolitan cities, distribution of devices was homogenous across the 7 provinces. **Conclusion:** The number of PET-CT devices seems to be sufficient for Turkey at the moment. There was a rapid increase in the number of PET CT devices in last 2 years, however the distribution seems to be fair across the country. The ministerial control seems to be a good authority in keeping the balance across the country.

#### **P-243 OUTCOME OF PROPHYLACTIC CRANIAL IRRADIATION IN 112 PATIENTS WITH RECURSIVE PARTITIONING ANALYSIS GROUP 1 LOCALLY ADVANCED (STAGE IIIB) NON-SMALL CELL LUNG CARCINOMA**

B. Pehlivan, A. Kotek, S. Akkaneren, E. Topkan

Baskent University Medical Faculty, Adana Medical and Research Center, Department of Radiation Oncology

**Background:** We evaluated the potential usefulness of prophylactic cranial irradiation (PCI) specifically in recursive partitioning analysis (RPA) Group 1 locally advanced non-small cell lung carcinoma (LA-NSCLC) patients. **Methods:** A cohort of 112 patients with RPA group 1 stage IIIB NSCLC were treated with sequential (N=66) or concurrent chemoradiotherapy (N=46) and PCI. Thoracic radiotherapy (TRT) was given at a dose of 60-66 Gy (2 Gy/fr) using 3-D conformal treatment planning. All patients received a dose of 30 Gy (2 Gy/fr) PCI, beginning on the first day of initiation or the day after completion of the TRT. **Results:** Current PCI schedule was well tolerated. Overall, 11 (9.8%) patients developed BM, and in only 3 (2.7%) as the relapse site. Incidence of BM for sequential and concurrent chemotherapy cohorts were 8/66 (12.1%) and 3/46 (6.5%), respectively (P=0.04). Median BM-free survival, overall survival, and progression free survival rates for sequential and concurrent treatment cohorts were 17.4 vs. 24.7 months (p=0.012), 18.8 vs. 26.9 months (p=0.009), and 12.8 vs. 19.6 months (p=0.017), respectively. Age  $\leq$ 55 years (p = 0.02) and induction chemotherapy were significant risk factors (p=0.02) for BM development on univariate analysis. Coexistence of the induction chemotherapy use and age younger than 55 years was the unique risk factor for BM development (P=0.01) on multivariate analysis.

Conclusion: Current results demonstrated the efficacy of PCI in prevention of BM in LA-NSCLC patients treated with sequential/concurrent chemoradiotherapy. Additionally, PCI in conjunction with immediate TRT concurrent with chemotherapy prevents BM development more effectively than sequential chemoradiation protocols.

#### **P-244 SENTINEL LYMPH NODE BIOPSY ON THE EARLY STAGE BREAST CANCER**

T. Sagirolu, A. Sezer, M. Yagci, H. Aksoy, Z. Hoscoskun, I. Coskun

Trakya University, School of Medicine, Department of Surgery

Introduction: Sentinel lymph node biopsy is a minimal invasive technique, which is an alternative for axillary dissection. In this retrospective study we tried to evaluate accuracy of sentinel lymph node biopsy in early stage breast cancer, using isosulphane blue solution and technetium-labeled sulfur colloid. Patients and Methods: Between 2007 and 2009, 36 patients with clinically early stage breast cancer (T1, T2, N0) have been treated with sentinel node biopsy at Trakya University Medical Faculty, Departments of General Surgery. The records of these patients were reviewed retrospectively. Results: The mean age of these patients was 54 years (range 34-68). The tumors were classified in terms of subtype as ductal (n:18, 50%), lobular (n:8, 22.2%), mixed (n:8, 22.2%), or other (n:2, 5.5%). Tumors in 22 patients in the upper-outer quadrant, 1 patient in lower-outer quadrant, 4 patients in the upper-inner quadrant, 3 patients in lower inner quadrant, 6 patients were located retroareolar. Clinically 20 patients were T1NoMo, 16 patients were T2NoMo. Preoperative diagnosis was made on excisional biopsy in 18 patients, tru-cut biopsy in 12 patients and fine needle aspiration biopsy in 6 patients. The median number of SLN removed was 2 (1-4). Axillary dissection was performed in 16 patients with SLN involvement. We performed breast conserving surgery and mastectomy without axillary dissection in 3 patients with micrometastasis and in 16 patients without SLN involvement. Conclusion: In patients with early breast cancer with high morbidity, SLNB could replace axillary dissection for avoiding the unnecessary complications of a complete axillary lymph node dissection. Lymphatic mapping and SLN biopsy is most effective when a combination of vital blue dye and radiolabeled sulfur colloid is used. Further randomized studies with more patients are required.

#### **P-245 EXTRANODAL NON-HODGKIN LYMPHOMAS: A RETROSPECTIVE ANALYSE**

E. Arpacı, T. Yetisyigit, A. Ulas, F. Paksoy, S. Tokluoglu, A. Durnali, G. Celenkoclu, N. Alkis

Ankara Oncology Teaching and Research Hospital

Purpose: Approximately one third of the non-Hodgkin's lymphomas arise in tissues different from the lymph node usually termed extranodal lymphomas. In this retrospective analyse we reported clinical features of forty patients with extranodal lymphomas. Patients: We analyzed clinical features of 40 patients histopathologically diagnosed as diffuse large B-cell lymphomas applied for Ankara Oncology Hospital between 2004 and 2008. Results: Eighteen (45%) of 40 patients are male, 22 (55%) patients are female, range of age 19-73, and median age was 49.8. According to the extranodal primary origin 15 patients had involvement at upper aerodigestive system, 13 patients at gastrointestinal tractus, 7 patients at toracal wall and lungs and 5 patients consisting others (renal, sculp etc). Eleven of 40 patients had B symptoms at the onset of the diagnosis. 30% of all patients had advanced stage of disease (Ann Arbor III or IV). In all of patients, lymphoma was immunohistochemically CD20 positive and all of them received CHOP (cyclophosphamide, doxorubicin, vincristine and prednisolon) chemotherapy combined with rituximab. Thirty-two (80%) of 40 patients got complete remission and maintain their lives. Conclusion: The consideration of a lymphoma as primary nodal or extranodal is a controversial issue. Since of course extranodal lymphomas can also disseminate, this restrictive criterion leads to an incomplete picture of these lymphomas. For this reason, those cases with clinically relevant extranodal involvement are usually considered as extranodal. From this retrospective analysis of 40 patients we observed that since diffuse large cell B lymphoma is chemosensitive, regardless of disease stage chemotherapy must be given.

#### **P-246 PRIMARY MALIGNANT MELANOMA OF THE RECTUM**

O. Uysal Sonmez, I. Turker, K. Helvacı, B. Budakoglu, B. Oksuzoglu, N. Zengin

Dr. Abdurrahman Yurtarslan Oncology Training and Research Hospital, 2nd Medical Oncology Department, Ankara, Turkey  
Introduction and objectives; Malignant melanoma (MM) is not only to be originated from skin but mucosa as well. Primary rectal MM is rare disease to be diagnosed late and its' prognosis is worse. Case 1; A 47-year old woman was admitted to the hospital with rectal bleeding. Colonoscopy revealed an ulcerated 3 cm mass at 3 cm away from anus. Biopsy showed a high grade mesenchymal tumor consistent with MM by using immunohistochemical technics. Abdominoperineal resection (APR) was applied. Multiple metastatic lesions were detected in lung and liver by computed tomography (CT) of thorax and abdomen. Cranial lesions were also detected by magnetic resonance imaging (MRI) of brain. After whole brain radiotherapy of 3000 cGy, temozolamide was started at a dose of 200 mg/m<sup>2</sup>/day. The disease progressed on temozolamide after 2 months and paclitaxel and carboplatin was started as a second-line treatment. Case 2; 65-year old woman was admitted to hospital with rectal bleeding. Rectoscopy showed rectal mass at 10 th cm of rectum. Immunohistochemical findings of biopsy was consistent with MM. APR was applied. There was no distant metastasis. Stage 3A tumor was diagnosed and adjuvant immunotherapy was planned. Conclusion; Optimal surgery differs from local excision to APR. Surgery, chemotherapy, and/or external radiotherapy combinations are the possible suggested options. However, the prognosis is still worse and new treatment modalities are awaited.

#### **P-247 THE ROLE OF HPV TESTING IN THE FOLLOW-UP OF WOMEN TREATED WITH CARBON DIOXIDE LASER FOR CERVICAL DYSPLASIA**

G. Dimitrov, V. Antovska, A. Micevska, I. Suplinovska, M. Micevska  
University Clinic of Obstetrics and Gynecology, Skopje, MACEDONIA

Objectives: The aim of this study was to investigate factors predicting persistence or recurrence of disease after carbon dioxide laser vaporization in patients with histologically proven ectocervical CIN2 (cervical intraepithelial neoplasia ) and ectocervical persistent CIN1. Methods: The study involved 142 women with CIN1 and CIN2 lesions, treated with CO2 laser vaporization in a 2 year period (01.01.2006 to 31.12.2007). To evaluate the efficacy of treatment, the patients were examined with colposcopy and Pap smear every 4 months after the laser treatment and with PCR ( polymerase chain reaction) to search for and genotyping of HPV (human papillomavirus ), 12 months after treatment. Results: During the post-treatment follow-up, the cytologic and subsequent histologic

examination showed persistent/recurrent disease in eleven patients (7.7%). In all of these patients viral typing revealed persistence of high-risk HPV. Conversely, the HPV check-up test at 12 months after treatment in the other patients without persistent/recurrent disease after treatment disclosed low-risk HPV genotypes in 13 cases, high-risk HPV in 3 cases (2.1%). The concurrent finding of cytologic abnormalities and positive high-risk type of HPV especially at 12 months after treatment is a strong indicator of persistent/recurrent disease ( $p < 0.001$ ). Conclusion: HPV testing is the most sensitive mean of identifying persistence or recurrence early and is therefore capable of optimising follow-up after carbon dioxide laser vaporization of CIN.

#### **P-248 THE EFFICACY AND TOXICITY OF SUNITINIB TREATMENT IN METASTATIC RENAL CELL CARCINOMA: A MULTICENTER RETROSPECTIVE STUDY OF ANATOLIAN SOCIETY OF MEDICAL ONCOLOGY (ASMO)**

R. Yildiz\*, S. Buyukberber\*, B. Ustaalioglu\*\*, U. Coskun\*, M. Ozkan\*\*\*, T. Cil\*\*\*\*, M. Kalender\*\*\*\*\*, M. Gumus\*\*, E. Arpac\*\*\*\*\*, A. Uner\*, M. Benekli\*\*\*\*\*

\*Gazi University Faculty of Medicine, Department of Medical Oncology, Ankara

\*\*Kartal Dr. Lutfu Kirdar Research and Education Hospital, Medical Oncology Clinic, Istanbul

\*\*\*Erciyes University Faculty of Medicine, Department of Medical Oncology, Kayseri

\*\*\*\*Dicle University Faculty of Medicine, Department of Medical Oncology, Diyarbakir

\*\*\*\*\*Gaziantep University Faculty of Medicine, Department of Medical Oncology, Gaziantep

\*\*\*\*\*Dr. Abdurrahman Yurtaslan Research and Education Hospital, Medical Oncology Clinic, Ankara

\*\*\*\*\*Gazi University Faculty of Medicine, Department of Medical Oncology, Ankara, TURKEY

Background and Aims: Sunitinib malate is a multitargeted receptor tyrosine kinase inhibitor (VEGFR-1, VEGFR-2, VEGFR-3, PDGFR- $\beta$ , KIT and Flt-3), with direct antitumor and antiangiogenic activity. It has been approved for treatment of metastatic renal cell carcinoma (MRCC) patients in first-line and cytokine-refractory condition. The improvement in progression-free survival (PFS) and overall survival (OS) was reported in conducted trials. In present study, we retrospectively analyzed the efficacy and toxicity of sunitinib treatment in MRCC patients. Patients and methods: Between February 2007 and September 2009, 105 patients from 7 different centers, of median age 58 years (range, 24-78 years) were retrospectively evaluated. Sunitinib was given to 35.6% of patients as first-line and 64.4% of patients as salvage therapy. The most common metastatic sites were lungs (59.0%), liver (16.2%), bone (12.4%) and local mass (7.6%) with multiple metastases in 22.9% of the patients. Results: The median follow-up was 8 months (range, 1-26). Totally patients received 479 cycles of treatment with a median of 4 (range, 1-14). Treatment response was evaluated for 83 patients, 25 partial response (30.1%), 30 stable disease (36.1%) and 28 progressive disease (33.7%). Median progression-free survival was 8 months (95% CI, 6.2-9.8) with a median overall survival of 23 months (95% CI, 11.0-35.0). Grade 3-4 toxicities were as follows: asthenia (n=5) neutropenia (n=4), thrombocytopenia (n=3), diarrhea (n=2), nausea and vomiting (n=3), mucositis (n=2), rash (n=2), hand-foot syndrome (n=2), hypothyroidism (n=6). Conclusion: Sunitinib demonstrates similar efficacy and toxicity profile to reported studies in both first-line and salvage treatment of MRCC patients.

#### **P-249 FOXP3 AS A KEY REGULATOR IN P53-INDUCED SENESCENCE**

J. Kim, D. Jin, S. Hong, J. Shin, D. Jung, W. Lee

Seoul National University College of Medicine

In this study, we describe a novel function of the forkhead transcription factor, Foxp3 gene, which is both a key player in mediating T cells inhibitory function and a transcriptional repressor of ErbB2/HER2 oncogene. The Foxp3 protein was found to induce cellular senescence in mouse embryonic fibroblasts (MEFs). Foxp3 expression was significantly increased in old MEFs (passage 10), but not in young MEFs (passage 3). The senescence-like phenotype (SLP), which is morphological changes, increased expression of senescence markers such as p53 and senescent associate beta-galactosidase (SA-beta Gal) positive, was also observed in old MEFs that have an increased level of Foxp3. The effects of Foxp3 on the induction of cellular senescence were examined. It was found that cellular senescence was earlier induced in Foxp3-expressing MEFs than in cells transfected with control vector. Moreover, knockdown of endogenous Foxp3 using RNA interference blunted senescence-like phenotype that observed in normal MEFs at passage 10. These findings are consistent with expression of cell cycle related proteins such as cyclin B1, cyclin D1, cyclin E, p53, phosphorylated p53 and p21. Especially cyclin B1 expression in Foxp3-expressing MEF was decreased, like in old control MEFs, but not in MEF transfected with Foxp3-shRNA, implying that a increased expression of Foxp3 is co-related with the induction of cellular senescence. In addition, Foxp3 induced senescence through production of reactive oxygen species (ROS). Therefore, these results suggest that Foxp3 is a key regulator in entering of senescence induced by p53.

#### **P-250 THE FUNCTIONAL MECHANISM OF CEACAM1 AS A KEY REGULATOR IN IMMUNE TOLERANCE OF CANCER CELLS**

J. Shin, D. Jin, S. Hong, J. Kim, D. Jung, J. Kang, Y. Hwang, W. Lee

Seoul National University College of Medicine

The glycoprotein carcinoembryonic-antigen-related cell adhesion molecule 1 (CEACAM1) is a membrane-bound protein found in microvilli of the apical colon cell surface. Recently, it was reported that signal transduction through the cytoplasmic domains appears to be important for the tumor suppressor function of CEACAM1 and also apoptosis induction in early tumor development. However, the mechanisms that control CEACAM1 expression are not clear. In this study, we show that CEACAM1 expression is induced in a p53-dependent manner. More importantly, alternative splicing of CEACAM1 to the long form (CEACAM1-4L) and the short form (CEACAM1-4S) is regulated by p53 in human colon carcinoma cells, Hct116. Treatment with etoposide induced CEACAM1 expression in cells that have p53 function, but not in cells lacking p53 function. In addition, knockdown of endogenous wild-type p53 using RNA interference and p53 overexpression by adenoviral vector were paralleled with CEACAM1 expression in Hct116 cells. These results suggest that induction of CEACAM1 in the context of tumor suppression is regulated in a p53-dependent manner and implicate CEACAM1 as a key determinant of cell fate.

## **P-251 INVESTIGATION OF THE EFFECT OF DISCHARGE PLAN ON SYMPTOM CONTROL AND QUALITY OF LIFE IN PATIENTS WITH LUNG CANCER**

M. Korkmaz\*, C. Fadiloglu\*\*

\*Suleyman Demirel University Faculty of Health Sciences

\*\*Ege University Nursing High School

Aim of the study is to establish the effectiveness of discharge plan on symptom control and quality of life in patients with lung cancer. The study was planned as experimentally. Sample of the research consisted of thirty two patients; 16 patients in experimental group, 16 patients in control group. A routine clinic patient care was administered in the control group whilst a discharge program in the experimental group. As data collection instruments Patient Data Collection Form Related Lung Cancer Patients, Lung Cancer Symptom Scale, Karnofsky Performance Scale, EORTC QLQ C-30, and LC-13 Quality Of Life Questionnaire were used. Patient Education Booklet was used in applying the discharge plan to patients with lung cancer. A statistically significant difference was detected between the scores of Lack of Appetite, Fatigue, Dispne, Pain, Effect of Disease on Activities, Mean Symptom Burden, Global Quality Of Life (LCSS), Role Function, Social Function, Global Quality Of Life, Fatigue, Nausea-Vomiting, Lack of Appetite, Diarrhea (EORTC QLQ C-30), Sore Mouth, Difficulty in Swallowing, and Pain in Other Parts (LC-13) in the repeated measures of the patients of experimental group and control group ( $p<0.05$ ). Consequently, a statistically significant improvement was observed in quality of life and symptom severity levels of the patients, who had lung cancer and whom a discharge plan was applied, within a period of 6 weeks. In this context, it could be suggested that discharge planning is an effective tool for the care of patients with lung cancer.

## **P-252 DEPRESSION, BODY IMAGE, SEXUAL PROBLEMS AND SPOUSE RELATIONS OF PATIENTS WITH CANCER: COMPARISON OF HYSTERECTOMY AND MASTECTOMY CASES**

A. Babacan Gumus\*, G. Keskin\*\*

\*Canakkale Onsekiz Mart University, School of Health, Turkey

\*\*Ege University Ataturk Medical Technology Vocational Training School, Turkey

Objective: This study is a descriptive study aiming to determine the depression and body image, dyadic adjustment, sexual functions, personality specialist and compare them with patients who were mastectomy and hysterectomy. Method: The study group comprised 94 patients between 25-70 years of age, being treated in Ege University radiation Oncology Clinic, Tulay Aktas Oncology Hospital, Izmir Aegean Obstetrics and Gynecology Training and Research Hospital for breast and gynecological cancer (42 patients underwent mastectomy, 52 patient underwent hysterectomy). Five scales were used in the study: Beck Depression Scale, Personality Questionnaire Revised-Abbreviated, Body Image Scale, Dyadic Adjustment Scale, Golombok Rust Sexual Functions Scale. Data were evaluated with ANOVA, t test, Pearson correlation analysis. Results: The mean age of the patients was  $47.78\pm9.8$ . The scores obtained from BDS in 78.8% of the patients, were above the cut-off value of 17. Mastectomy patients were more depressive than hysterectomy patients ( $t=2.78$ ,  $p<0.007$ ). Body image levels of the patients were bad level but there was not a significant difference between mastectomy patients and hysterectomy patients ( $p>0.05$ ). Hysterectomy patients had more problems in terms of vaginismus ( $t=2.32$ ,  $p<0.022$ ), avoidance of sexual intercourse ( $t=2.31$ ,  $p<0.022$ ), communication ( $t=2.06$ ,  $p<0.040$ ), frequency of sexual intercourse ( $t=2.10$ ,  $p<0.038$ ) than mastectomy patients. As compared with compliance levels between patients and spouses; hysterectomy patients had more problems related to expression of emotions than mastectomy patients ( $t=2.12$ ,  $p<0.036$ ). Conclusion: In this study, in the mental status, body image, sexual life and spouse relations of hysterectomy and mastectomy patients were found negative changes.

## **P-253 CASE EVALUATION IN YASSIKAYA-ESKIHISAR VILLAGES WITH ASIBESTOS EARTH**

A. Cikrikci\*, H. Mercan\*\*

\*ACSAP

\*\*Egitim Subesi

Asbestos fibers are the minerals causing Mesothelium, lung cancer, intertisyel fibrosis and plevral fibrosis. According to articles of Cancer Control Department on December 10 2002, with the article number of 5610-1470 called "Action Plan", asbestos problems have been detected in Yassikaya and Eskihsar Villages in the District of Halkapinar in Konya. Studies fulfilled since then are summarized in this study and new approaches are debated. Aim It has been observed through the study that villagers have used asbestos to whitewash and plaster. It decreases the contact with asbestos when houses are restored and roads are asphalted. Importance of the issue should be raised by public education. Further studies should be conducted in the issue. We aimed to voice the current issue and let universities do detailed investigation about it. Tools and Methods Data about mesothelium and lung cancer were scanned. All studies since 2002 have been compiled. The situations of houses were determined through trips to villages concerned. Roads and plantation were evaluated. Information meetings were held to raise awareness. Result It has been revealed that developmental studies in Yassikaya and Eskihsar villages in Halkapinar in Konya should be maintained, that Health Department and Local Authorities should carry on working together, that by means of educational programs awareness should be raised and kept at the highest level, and that universities should conduct further detailed studies in the region.

## **P-254 CROHN DISEASE MIMICKING ABDOMINAL MASS**

M. Tosun, V. Ertekin, A. Kantarci

Ataturk University, Faculty of Medicine

Introduction Intestinal complications in Crohn Disease (CD) arise as the result of transmural inflammation, leads to an inflammatory reaction adjacent to the affected loop. This inflammatory reaction can be imaged by different techniques as an inflammatory mass, or phlegmon, in the mesentery near the affected loop. We present a child with rectal bleeding and diagnosed an abdominal mass with CD. Case Report A four- year old child was admitted to our hospital with complaints of rectal bleeding, abdominal pain and diagnosed abdominal mass. It was learnt that a blood transfusion was made because of excessive rectal bleeding to the patient two years ago. There was no history of tuberculosis and inflammatory bowel disease (IBD) in his family. At colonoscopy, there was a stricture at level of sigmoid colon therefore colonoscope failed to progress. Mucosa of sigmoid colon was bleeding tendency. There were a few ulcers on that mucosa. Virtual colonoscopy was undergoing to him. It was seen a mass-like lesion with soft tissue density at ascending colon near the splenic flexura. Biopsy specimens were consistent with CD. Conclusion: CD is characterized by transmural

granulomatous inflammation of the intestine. The inflammatory process can involve any part of the bowel and leads to inflammatory mass, or phlegmon in the mesentery. In our patient, we observed a similar mass at level of ascending colon. Should be kept in mind that abdominal masses may be the first finding of CD.

## **P-255 COMPARISON OF CT AND PET/CT BASED RADIOTHERAPY PLANNING IN HEPATIC METASTASES FROM COLORECTAL AND BREAST PRIMARIES**

**B. Pehlivan**, A. Kotek, S. Akkaneren, E. Topkan

Baskent University Medical Faculty, Adana Medical and Research Center, Department of Radiation Oncology, Kisle Saglik Yerleskesi, 01120 Adana, Turkey.

**Purpose:** To evaluate the additional value of co-registered FDG-PET/CT data for gross tumor volume (GTV), clinical target volume (CTV), planning target volume (PTV) definitions compared to conventional CT-based definition, in hepatic metastases (HM). **Patients and Methods:** Twenty-two patients with HM from colorectal (N=17) and breast cancer (N=5) primaries were included. All patients had undergone CT and FDG-PET imaging for radiotherapy planning purposes, prior to radiotherapy. The GTV was defined by a radiation oncologist and nuclear medicine physician. The CTV and PTV were specified as: CTV=GTV+1cm, and PTV=CTV+0.5, 1, 1.5cm for laterals, anterior/posterior, and craniocaudal margins, respectively. Target volume delineations were performed separately for both CT and co-registered PET-CT data. Treatment plans and dose-volume histograms (DVH) were created for comparison. **Results:** PET data revealed additional liver lesions (1 to 3 lesions) in 5 patients not visible on CT images, and 1 patient was excluded from study protocol due to ineligibility for dose constraints. Remaining 21 were eligible for protocol. The median GTVPET-CT was significantly larger than GTVCT: 69.8 cm<sup>3</sup> (range 27.4 - 236.2 cm<sup>3</sup>) vs. 52.1 cm<sup>3</sup> (19.3 - 185.2 cm<sup>3</sup>) with a median enlargement of 33.9% (P=0.012). Enlargement of GTV was observed in 13 (61.9%) cases and reduced GTV in 3 (14.3%). Increment in GTV was similarly reflected to CTV and PTV (P<0.05). **Conclusion:** Fusion of PET for target volume specification for external beam radiotherapy of HM revealed a significant change in the target volumes. Additional PET-positive tumor regions may potentially improve treatment outcomes by potentially preventing the marginal misses.

## **P-256 UPDATING CLINICAL PRACTICE GUIDELINES IN CANCER IN CATALONIA AND ASSESSING ADHERENCE TO ITS RECOMMENDATIONS**

P. Manchon-Walsh, J. Borràs, **T. Ferro**, J. Espinàs

Catalan Cancer Strategy. Department of Health

**Background:** The OncoGuies, evidence-based guidelines in cancer in Catalonia, are the key element used by the Catalan Cancer Plan in order to promote equity of therapeutic access and quality cancer care. Colorectal (CRC), Lung and Breast cancer OncoGuies were first published in 2003 and updated in 2008. **Purpose:** The general aim was to update CRC, Lung and Breast cancer OncoGuies and assess adherence to its recommendations. Specific aims were: to update recommendations of the original guidelines, update evidence supporting their recommendations and add quality ratings, propose evaluation tools, include a section for patients and finally measure adherence to rectal cancer treatment recommendations. **Methods:** The updating process was open to all experts who had participated to the development of the original OncoGuies. Based on a review of quality clinical practice guidelines, the participants were asked to identify recommendations to update or to newly introduce. A literature review was carried out and two experts graded the selected evidence using CEBM-Oxford scale and SIGN scale. Indicators were selected from literature. A section for patients was introduced. Implementation of key recommendations regarding rectal cancer treatment is now being measured in a retrospective cohort study of all cases of primary rectal cancer being operated during 2005 or 2007. **Results:** Near to 100 clinical experts from 20 clinical specialties participated: more than 25 key recommendations per OncoGuia covering aspects on diagnosis, treatment and follow-up were updated or newly introduced. **Results and conclusions** regarding the adherence to rectal cancer recommendations will be presented in the the 3rd ICCC in November 2009. **Conclusion:** Updating the OncoGuies has been a good opportunity to improve its quality, and necessary to improve adherence to its recommendations. References Borràs JM et al. Impact of cancer in Catalonia: consequences for priorities in the prevention, diagnosis and treatment of cancer. Med Clin (Barc). 2008.

## **P-257 DETAILED ANALYSIS OF ENDOMETRIAL CANCER PATIENTS WHO UNDERWENT RESECTION OF UPPER AND LOWER PARA-AORTIC NODES DURING A LYMPHADENECTOMY**

**T. Turan\***, H. Keskin\*\*, B. Gundogdu\*, S. Ozer\*, A. Ozfuttu\*\*\*, N. Boran\*, G. Tulunay\*, M. Kose\*

\*Department of Gynecologic Oncology, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital

\*\*Department of Gynecology and Obstetrics, Ankara Ataturk Teaching and Research Hospital

\*\*\*Pathology Division, Ankara Etlik Zubeyde Hanim Maternity and Women's Health Teaching and Research Hospital

**Introduction:** In this study, the para-aortic lymph node status of patients with endometrial cancer was analyzed. **Methods:** The seventy-eight patients with endometrial cancer enrolled in this study. Lymph node status was evaluated during the lymphadenectomy, with the inferior mesenteric artery used as the border between the upper and lower regions of the para-aortic region. **Results:** The mean number of resected lymph nodes was 14.4 for upper region and 10.1 for lower region. Lymphatic involvement rate was 14.1% in upper region and 6.4% in lower region. In 27.3% of the patients with metastatic lymph nodes in the upper region, there were no metastases detected in the pelvic lymph node. Endometrioid-type histology was reported for 72.7% of patients with upper region metastases and for 40% of patients with lower region metastases. Patients with a grade of 1 didn't have metastases detected in the lower region, yet metastases were detected in the upper region. In 9.1% of patients who had metastases in the upper region and in 20% of patients who had metastases in the lower region, myometrial invasion was not detected. **Discussion:** The number of metastatic pelvic lymph nodes site, cell type, grade and the depth of myometrial invasion the upper and lower para-aortic regions could be distinguished into two different clinical conditions. However, due to the small number of cases evaluated in this study, additional case studies are needed to confirm these findings.

## **P-258 EFFECTIVENESS OF LAPATINIB AND CAPECITABINE COMBINATION IN BREAST CANCER**

## PATIENT WITH BRAIN METASTASIS

E. Arpacı, T. Yetisyigit, A. Ulas, F. Paksoy, S. Tokluoglu, A. Durnali, G. Celenkoclu, N. Alkis

Ankara Oncology Teaching and Research Hospital, Department of Medical Oncology

Background: A 31 years old female patient, who had modified radical mastectomy and axillary dissection in April 2005 due to mass in right breast, was compatible with grade 3 invasive ductal carcinoma. 12 of 15 lymph nodes were metastasized. Tumor: 5.5 cm, estrogen and progesterone receptor were positive, C-erbB2 score was +++. 4 cycles of CA (cyclophosphamide+doxorubicin) and radiotherapy were delivered to the T3N3M0 (stage IIIC) patient. Then 4 cycles of docetaxel were given. After chemotherapy she took 20 mg/day tamoxifen. Patient experienced headache, weakness in extremities in September 2007. Physical examination revealed left hemiparesis, cerebral MRI revealed right frontal mass. Patient was operated and pathology was consistent with invasive ductal carcinoma. In postoperative period because of persistent headache and lower extremity weakness palliative whole brain radiotherapy was delivered in October 2007. After radiotherapy chemotherapy including trastuzumab and paclitaxel were started. After 9 cycles of treatment, Cerebral MRI revealed relapsed residual mass compatible with local progression. Lapatinib and Capecitabine (LC) treatment was started due to progression under trastuzumab therapy. Results: After 6 cycles of LC treatment, no radiological findings of metastasis was seen in brain. It was decided to continue therapy. After 10 cycles of LC treatment, cerebral MRI which was taken for evaluation of response revealed progression. Conclusion: In this case we evaluated effectiveness of LC combination in a patient with cerebral metastasis during trastuzumab treatment. In this case, LC treatment delayed progression of disease for 9 months. The treatment contributed positively to survival of patient as well.

## P-259 THE EFFICACY AND TOXICITY OF BEVACIZUMAB COMBINATION CHEMOTHERAPY REGIMENS IN METASTATIC COLORECTAL CANCER: A MULTICENTER RETROSPECTIVE STUDY OF ANATOLIAN SOCIETY OF MEDICAL ONCOLOGY (ASMO)

R. Yildiz\*, S. Buyukberber\*, N. Ozdemir\*\*, V. Berk\*\*\*, M. Kaplan\*\*\*\*, A. Uner\*, N. Alkis\*\*\*\*\*, U. Coskun\*, D. Uncu\*\*, O.

Balaban\*\*\*\*\*, A. Isikdogan\*\*\*\*, T. Yatisyigit\*\*\*\*\*, M. Ozkan\*\*\*, N. Zengin\*\*, M. Benekli\*

\*Gazi University Faculty of Medicine, Department of Medical Oncology, Ankara

\*\*Numune Education and Research Hospital, Medical Oncology Clinic, Ankara

\*\*\*Erciyes University Faculty of Medicine, Department of Medical Oncology, Kayseri

\*\*\*\*Dicle University Faculty of Medicine, Department of Medical Oncology, Diyarbakir

\*\*\*\*\*Dr. Abdurrahman Yurtaslan Education and Research Hospital, Medical Oncology Clinic, Ankara

\*\*\*\*\*Gaziantep University Faculty of Medicine, Department of Medical Oncology, Gaziantep, TURKEY

Background/Aims: In the present study, the efficacy and tolerability of bevacizumab combination chemotherapy regimens were retrospectively evaluated in MCRC patients in Turkish population. Patients and methods: Three hundred thirty three patients with a median age of 55 years (range, 28-78) were retrospectively evaluated from 9 ASMO centers. The most common metastatic sites were liver (68.8%), lung (23.7%), peritoneum (19.4%), bone (6.7%) and local mass (12.7%). Bevacizumab was given to patients in combination with FOLFIRI (78.9%), IFL (8.7%), irinotecan only (5.4%) and other regimens (7%). Results: The median follow-up was 14 months (range, 1-58) in first-line and 11 months (range, 1-58) in salvage therapy. Treatment regimens were given to 208 (58.6%) in first-line and 147 (41.4%) in salvage therapy. Treatment responses were as follow: In first-line, 33.5% (6 CR, 53 PR) overall response rate, 34.1% disease stabilization and 32.4% progressive disease; in salvage group, 20.3% (4 CR, 22 PR) overall response rate, 39.8% (n=51) disease stabilization and 39.8% (n=51) progressive disease. According to treatment line, median PFS was 7 months (95% CI, 6.0-8.0) and 6 months (95% CI, 5.0-7.0), and median OS was 20 months (95% CI, 18.2-21.8) and 13 months (95% CI, 10.2-15.8), respectively. Grade 3-4 toxicities were as follows: neutropenia (21.2%), febrile neutropenia (3.7%), thrombocytopenia (1.7%), nausea and vomiting (5.9%), diarrhea (9.6%), mucositis (1.7%), gastrointestinal perforation (n=3), thromboembolism (n=4), hypertension (n=5), proteinuria (n=3), fistulisation (n=3), bleeding (n=6). Conclusion: Bevacizumab-based chemotherapy regimens are effective with a tolerable safety profile in MCRC patients both in first- and salvage-line of therapy.

## P-260 SURVIVIN EXPRESSION AND ITS CLINICAL SIGNIFICANCE IN GASTROINTESTINAL STROMAL SARCOMA

M. Baykara\*, M. Akkus\*, S. Buyukberber\*, I. Gonul\*\*, R. Yildiz\*, A. Dursun\*\*, U. Coskun\*, M. Benekli\*, A. Sevinc\*\*\*, F. Dane\*\*\*\*

\*Gazi University Medical Faculty, Department of Medical Oncology

\*\*Gazi University Medical Faculty, Department of Pathology

\*\*\*Gaziantep University Medical Faculty, Department of Medical Oncology

\*\*\*\*Marmara University Medical Faculty, Department of Medical Oncology

ABSTRACT Objective: This study was designed to determine the level of survivin (S) expression and its clinical significance as a prognostic factor in gastrointestinal stromal sarcoma (GIST). Methods: Twenty patients (12 male and 8 female) who diagnosed with GIST was analysis in this study. Formalin-fixed, paraffin-embedded blocks from surgically resected GIST tissues were studied for survivin expression. Results: Median age was 53 years (range 25-72). At diagnosed 5 patients had metastatic disease (MD). S expression was detected with 10 patients. All patients was treated surgically. After the surgical treatment tirozin kinase inhibitors (TKI) was given to 10 patients for due to progressive disease (PD). 5 patients who have PD despite treatment with TKI, all of them S(+). Failure of TKI treatment rate was higher in S(+) group (p=0.114, OR:2.67; CI:1.09-6.52) but this finding wasn't statistically significant. Eight patients with MD were S(+). Metastasis rate significantly higher in S(+) group than S(-) group (p=0.025, OR:9.33; CI:1.19-72.9). The median overall survival (OS) was 114 months (R:29-199). The median disease-free survival (DFS) was 82 months (range:1.2-163). There was not a significant difference for OS and DFS (respectively p=0.45, p=0.52) between S(+) and (-) patients. Conclusions: In conclusion, S was highly expressed in GISTs. Although we didn't find correlation between S expression and DFS, OS, they may be interpreted as suggesting S may be a predictive marker in GISTs for anticancer therapy and developing recurrences or metastasis in the course of disease.

## P-261 IN VITRO EFFICIENCY AND MECHANISTIC ROLE OF INDOCYANINE GREEN AS PHOTODYNAMIC THERAPY AGENT FOR HUMAN MELANOMA

A. Gamal-Eldeen\*, M. Ruppel\*\*, R. Smith\*\*\*, T. Tsang\*\*\*\*, L. Miller\*\*, A. Mamoon\*\*\*\*\*



\*Cancer Biology Laboratory, Center of Excellence for Advanced Sciences, National Research Center, Dokki 12622, Cairo, Egypt

\*\*Department of Biomedical Engineering, Stony Brook University, Stony Brook, NY 11794 USA

\*\*\*National Synchrotron Light Source, Brookhaven National Laboratory, Upton NY, 11973 USA

\*\*\*\*Instrumentation Division, Brookhaven National Laboratory, Upton NY, 11973 USA

\*\*\*\*\*Egyptian Atomic Energy Authority, Nasr City, Cairo, Egypt

Introduction: Photodynamic therapy (PDT) is a promising treatment for superficial cancer. However, poor therapeutic results have been reported for melanoma, due to the high melanin content. Indocyanine green (ICG) has near infrared absorption (700–800 nm) and melanins do not absorb strongly in this area. This study explores the efficiency of ICG as a PDT agent for human melanoma, and its mechanistic role in the cell death pathway. Methods: Human skin melanoma cells (Sk-Mel-28) were incubated with ICG and exposed to low power Ti:Sapphire laser. Synchrotron-assisted Fourier transform infrared microspectroscopy and hierarchical cluster analysis were used to assess the cell damage and changes in lipid, protein, and nucleic acids. The cell death pathway was determined by analysis of cell viability and apoptosis and necrosis markers. Results : In the cell-death pathway,  $1O_2$  generation evoked rapid multiple consequences that trigger apoptosis after laser exposure for only 15 minutes including the release of cytochrome c, the activation of total caspases, caspase-3, and caspase-9, the inhibition of NF- $\kappa$ B P65, and the enhancement of DNA fragmentation, and histone acetylation. Conclusion: ICG/PDT can efficiently and rapidly induce apoptosis in human melanoma cells and it can be considered as a new therapeutic approach for topical treatment of melanoma.

## **P-262 TELOMERASE ACTIVITY IS CORRELATED WITH N-MYC EXPRESSION IN NEUROBLASTOMA**

S. Aktas\*, G. Diniz\*\*, A. Turedi\*\*, R. Ortac\*\*, C. Vergin\*\*

\*Dokuz Eylul University Institute of Oncology, Department of Basic Oncology, Izmir, TURKEY

\*\*Dr Behcet Uz Children Research Hospital, Izmir TURKEY

Neuroblastoma is the most common solid tumors of childhood deriving from neuroblast cells. Although survival rates of childhood malignancies increased, there is still problem in survival of neuroblastoma. Telomerase activity supplies telomere maintenance in chromosomes. It avoids cells to enter senescence. It is one of the crucial steps in various cancers. In neuroblastoma telomerase activity is found to be high in previous studies. The aim of this study is to explore telomerase activity in neuroblastoma comparing with N-myc expression. This study included 24 neuroblastoma cases of childhood. The telomerase activity and N-myc expression was determined by immunohistochemical method on archival paraffin embedded tissue sections. Statistical analysis was done on SPSS15.0 by Chi Square test and correlation analysis at  $p < 0.05$ . Telomerase activity was low in 11 cases, and high in 13 cases. N-myc expression was low in 13 cases and high in 11 cases. Telomerase activity was statistically significantly found to be correlated with N-myc expression, which is one of the main prognostic factors in neuroblastoma (Spearman Correlation Analysis,  $p = 0.011$ ). Unexpectedly both n myc and telomerase activity was observed in ganglion like cells in maturing areas. Telomerase activity might be a prognostic factor in neuroblastoma. It will be useful to study the effect of chemotherapeutic agents on telomerase activity and to compare with clinical parameters in larger series.

## **P-263 EFFECT OF SULFUR DIOXIDE INHALATION ON LUNG TISSUE ANTIOXIDANT/PROOXIDANT ENZYMES AND TRACE ELEMENTS**

L. Afrasyap, U. Turkcu

Mugla University

Sulfur dioxide ( $SO_2$ ) is a common pollutant and may cause many harmful effects, especially cancer, on many tissues of mammals. The aim was to determine the action of 0.150 ppm  $SO_2$  exposure value on antioxidant/prooxidant enzymes and trace elements of lung tissue. A total of 20 male Wistar albino rats were equally divided into two groups. 0.150 ppm  $SO_2$  was given to the experimental group in an exposure chamber for 8h/day for 30 days. Control rats were exposed to filtered air for the same period. SOD, GSH-Px, CAT and MDA were measured by spectrophotometrically in lung tissues. Trace elements (Se, Cu, Zn, Mn, Fe) were analyzed with ICP-OES. SOD, GSH-Px, CAT and MDA values were found to be  $18.65 \pm 1.48$ ,  $18.50 \pm 4.12$ ,  $18.50 \pm 4.12$ ,  $7.03 \pm 2.42$ ,  $166.30 \pm 32.38$  in experimental rats, respectively. Trace elements in lung tissues of experimental group were found to be  $7.26 \pm 0.759$ ,  $10.57 \pm 1.94$ ,  $99.91 \pm 11.82$ ,  $1.75 \pm 0.442$ ,  $682.38 \pm 84.89$ , respectively. 0.150 ppm  $SO_2$  exposure, while decreasing SOD, GSH-Px, CAT values levels, significantly increased MDA values in experimental rats in comparison with their respective control rats. Trace element levels of experimental rats were found to be decreased. The study showed that low-dose and long-time  $SO_2$  exposure may lead to carcinogenesis in lung tissue via the free radical formation.

## **P-264 DIMENSION OF TUMORS IN INVASIVE DUCTAL CARCINOMA**

A. Kurt\*, C. Guzel\*\*

\*Department of Pathology, Education and Investigation Hospital, Erzurum, Turkey

\*\*Department of General Surgery, Education and Investigation Hospital, Erzurum, Turkey

The mastectomy and axillary lymph node dissection materials which were diagnosed as invasive ductal carcinoma that taken in 2009 which were in our laboratory archives, were examined without looking whether they have any other components or not. The patient age and tumor size which were on pathology report were noted. Only surgery materials were taken up. Incisional biopsies, fine needle aspiration cytologies and all cytologic methods were excluded. In 32 materials which were taken to examination, 14 were mastectomy, 18 were axillary lymph node biopsy. Mean age was 50. The mastectomy materials which big diameter was 2 cm: 1, 3 cm: 1, 4 cm: 3, 6 cm: 2 cases (total 7 patients) metastatic lymph nodes were recorded (At least 7 lymph node metastatic in each cases). (Mean age was 52). Big diameter of tumor as centimeter in the total materials; 2 cm: 1 case, 3 cm: 6 case, 4 cm: 5 case, 5 cm: 4 case, 6 cm: 7 case, total: 32 cases. The youngest one 29, the oldest one is 83 years old. According to this table, it is seen that the majority of patients diagnosed lately. This illness is seen in the productive years of the humans, and can be nearly treated so, for early diagnose and searching in early ages more studies must be made.

### **P-265 PRESERVATION OF FERTILITY IN YOUNG CANCER PATIENTS.**

M. Kiseleva, M. Karpeykina, M. Denisov

Medical Radiological Research Center RAMS

There are 2.6 millions cancer patients in the Russian Federation. Among them there are about 50% reproductive-aged men and women. The cancer treatment may reduce fertility by damage of ovaries and testicles. For these patients, there are several options of preserving fertility before and after cancer treatment. For preserving men's fertility can be used cryopreservation of sperm or testicles tissue. For the women of reproductive age with cancer there are special options like ovarian tissue and eggs cryopreservation; ovarian transposition out of the irradiation field before radiotherapy. Because of the variations in type and dose of chemotherapy, the type of cancer, the time available prior to onset of treatment, the patient's age, each case is unique and requires a different strategy of fertility preservation. We collected the 44 semen samples and 50 samples of ovarian tissue from cancer patients from 16 to 34 years old before starting cancer therapy. A total of 94 samples sperms were analyzed and frozen at our own cryobank. There samples can be stored for years. Our results indicate that in 76,19% semen samples were diagnosed astenozoospermia, in 57,14% cases were oligozoospermia and only 23,8% cases were normozoospermia. We are establishing the first human sperm bank for cancer patients in the Russian Federation. Fertility preservation should be an integral part of improving the quality of live in cancer survivors, but the first goal is to cure the cancer, even if the treatment causes sterility.

### **P-266 DISSOCIATION OF ADENOCARCINOMAS ACCORDING TO ORGANS, AGE AND SEX**

A. Kurt, M. Kabalar, I. Gelincik

Department of Pathology, Education and Investigation Hospital, Erzurum, Turkey

We classified the cases which diagnosed as adenocarcinoma in our archives, we didnt examine them again. We didn't take the lesions which named adenocarcinom-like. The adenocarcinoms and like cases which diagnosed by cytologic materials were excluded. In this study, we studied to make a map for adenocarcinom cases which can be develop in human body, by examining our archives. In 12000 surgery , curetage and biopsy materials which were examined in our pathology laboratory in 2009, 235 were diagnosed as adenocarcinoma. 75 were women (32,8%), 160 were men (67,2%) in this group. Mean age was 58,6 in women, 67,2 in men, and in total 64,5. The youngest one was 17 years old man, and he had diagnosed with wide metastasis in omentum. The oldest one was 90 years old man who was localized in stomach. The organs which the cases seen more were: stomach 134 patients (57%, 40 were women and 69 were men), colon 32(14%, 16 women, 16 men), prostate 29 (12%, all of them men), oesophagus 14 (6%, 5 women, 9 men), rectum 10 (4%, 7 women, 3 men) and the rest 16 (7%, 7 women, 9 men) duodenum, gall bladder, urinary bladder, anus, bronchia, bone, lymph node. The thought of adenocarcinoma is a malign tumor that seen frequently in digestional system and prostate, and can make metastasis to places like brain and bone was supported.

### **P-267 THE PAIN AND PALLIATIVE CARE CLINIC EXPERIENCES IN ONCOLOGY HOSPITAL**

N. Kadiogullari, G. Ozalp, O. Canoler, M. Kaya, O. Yildirim, N. Kocak

Dr. A. Y. Ankara Oncology Education and Teaching Hospital, The Pain and Palliative Care Unit I, Ankara, TURKIYE

The Pain and Palliative Care Clinic at Ankara Oncology Hospital have been organized since July 2007. We have eighteen patient beds in our clinic. Our team includes 4 experienced anesthesiologists, 2 anesthesiology residents, 11 nurses, dietitian, social worker, psychologist and physical therapist. We have the largest cancer rehabilitation program in Turkey, with medical experts in medical oncology, radiation oncology, anesthesiology, physical medicine, psychology, psychiatry, and other disciplines as needed working together to assess and manage severe cancer-related symptoms. Between January 2008 and December 2009, 1475 patients were admitted to the Pain and Palliative Care Clinic. 103 (7%) patients had non-cancer diseases. 483 (35%) patients suffered from a terminal event and the mortality rate in hospital was 29%. Pain was the most common symptom at admission 83% of the patients presented with pain. In our service optimum pain control is achieved by: • formulating an individualized treatment plan specific to each patient's needs • using a combination of pain management strategies such as non-pharmacologic methods, pharmacotherapy, nerve blocks, implants and other procedural pain management techniques (e.g. RF techniques neurolytic blocks) • practicing with a continuously of care approach beginning with a comprehensive assesment • utilizing frequent reassessment to adjust treatment plans when necessary based on disease progression, side effect and/or other factors • assessing each patient through a multidisciplinary approach involving professionals from various disciplines including psychiatry and neurosurgery. We are planning that our clinic combined hospital support team, outpatients clinic and phone support, improving patient's accessibility and continuing care at home or in hospital.

### **P-268 ASSESSMENT OF CANCER PATIENTS IN THE PAIN AND PALLIATIVE CARE CLINIC**

O. Canoler, G. Ozalp, N. Kadiogullari, G. Oguz, G. Sagir, O. Kapusuz

Dr. A. Y. Ankara Oncology Education and Teaching Hospital, The Pain and Palliative Care Unit I, Ankara, TURKIYE

In our hospital findings from January 2009 to December 2009 as follows; A total of 804 inpatients were evaluated by Pain and Palliative Care Clinic. 698 (87%) patients had a diagnosis of cancer. The others both chronic pain and chronic diseases. Cancer patients were admitted hospital mean 7±5 (1-38) days. The mortality rate was 26%. The gender distribution was 58% male and 42% female. In further analyzed cancer patients were 24% digestive tract cancer, 17% lung cancer, 9% breast cancer, 7% head and neck, 7% malignancies with unknown primary site, 5% hepatobiliary, 5% pancreas 5% gynecological cancers, 21% other malignacies. While 19% of the cancer patients did not have any metastasis, 38% had metastasis to more than one site, 11% had bone metastasis and 11% liver metastasis. Symptoms: 80% of the patients had more than one. symptom. These were respectively physical weakness (82%), anorexia (79%), pain (77%), nausea/vomiting (59%), constipation 32%, and dyspnea 21%. Pain control: While 37% of cancer patients was used NSAİ + a weak opioid, 34% of patients used stronger opioids. Intractable pain was controlled with invasive techniques (e.g. intrathecal opioid, RF techniques, neurolytic blocks) in 9% of cancer patients. Unrelieved symptoms of cancer patients are a major problem, affecting not only the patients' quality of life, but also the family, the health system and country's resources. In our clinic, with respect to symptoms control, an acceptable level of relief was achieved, especially in terms of pain control.

## **P-269 PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA: CT AND MR IMAGING FINDINGS**

K. Arda, N. Ciledag, E. Aktas

Ankara Oncology Hospital, Department of Radiology

**Objective;** Primary central nervous system (CNS) lymphoma is a rare brain tumor, representing 0.2%-2% of all brain tumors, and its prognosis is poor. The objective of this study was to investigate the computed tomography (CT) and magnetic resonance (MR) imaging features of primary CNS lymphoma. **Method;** CT findings of primary CNS lymphoma in 3 patients, and MR imaging findings of 2 patients with histologically proven primary CNS lymphoma were retrospectively reviewed in order to evaluate variable imaging patterns. After the diagnosis is made, CT examinations of chest and abdomen; and cerebrospinal fluid and bone marrow examinations were performed. **Results;** Twelve lesions were found in 5 cases. Supratentorial tumors were found in 4 patients, infratentorial tumor in one patient. The tumor presented slight hypodens with variable surrounding edema on precontrast CT images, mild enhancement after contrast agent injection. The lesions showed isointense or hypointense signals on T1WI and isointense or slightly hypointense on T2WI, with obvious enhancement after gadolinium injection. **Conclusion;** Primary CNS lymphoma are defined as lymphoma limited to the craniospinal axis without systemic disease. Primary CNS lymphoma may arise from different parts of brain, corpus callosum, cerebellum, orbits, and cranial nerves. Differential diagnosis of primary CNS lymphoma from meningioma, metastases, brain abscess and primary glial tumors is difficult. CT and MR imaging findings may be helpful in diagnosis of primary CNS lymphoma with typical imaging features.

## **P-270 RELIGIOUS COPING AND QUALITY OF LIFE IN IRANIAN CANCER PATIENTS: DO COPING STYLES AFFECT QUALITY OF LIFE**

E. Enjedany, M. Daryaafzoun, H. Zamanian, F. Aghaie Meybodi, B. Babaei, N. Kiaee, M. Hamzelouyan, F. Beigi  
Psycho-oncology research group, University of Tehran, Tehran, Iran and Student scientific research center of Tehran  
University of Medical Science, Tehran, Iran

**PURPOSE:** Nursing practice focused on applying interventions to promote quality of life for patients living with a chronic illness such as cancer. Religious coping is one of the factors that seem to be effective in quality of life, but most of previously studies omitted this area. The purpose of this study is to investigate the roles of religious coping (Islam) in quality of life among Iranian adults with cancer. **METHOD:** 95 hospitalized cancer patients, mean age 46 and Female/male ratio 3:1 completed the Religious Coping Questionnaire and Quality of Life Questionnaire (QOL-C30). Sociodemographic and medical information also were collected. Correlation and Linear regression analyses were used to assess the relationship between coping religious with quality of life. **RESULT:** Assembled data indicated that religious coping positively related to quality of life. Analysis between different dimensions of quality of life and coping total score also showed this positive correlation. **CONCLUSION:** The result suggested that the religious coping has important role in quality of life through increasing hope in afterlife, a sense of the evidence of God all around, and the social communications with the other religionists. This finding suggested that Iranian cancer patient use religious as a primary coping strategies and emphasizing on it can have operative outcomes.

## **Tobacco**

### **P-271 TRENDS IN SMOKING RELATED CANCERS IN IZMIR FOR 2001-2005**

S. Eser\*, J. Young\*\*, K. Ward\*\*

\*Izmir Cancer Registry

\*\*Department of Epidemiology, Emory University, Rollins School of Public Health

We examined time trends for smoking related cancers in men in Izmir for 2001-2005 years. Age-adjusted incidence rates by time period for lung, larynx, bladder, oral cavity and esophagus cancers were calculated. Total and annual percent changes were also calculated. ASR of lung has increased from 75.3 per 100 000 in 2001 to 81.9 per 100 000 in 2005. ASR for urinary bladder has increased from 19.6 per 100 000 in 2001 to 24.2 per 100 000 in 2005. ASR for Oral cavity was 6.2 per 100 000 in 2001 and 6.3 per 100 000 in 2005. ASR for esophagus was 2.6 per 100 000 in 2001 and 2.7 per 100 000 in 2005. Despite increasing trends in lung and bladder cancers, ASR of larynx cancer which is the one of among the main tobacco related sites, has been decreasing from 13.1 per 100 000 in 2001 to 11.2 per 100 000 in 2005. We would like to draw attention to the decreasing trend of larynx cancer on the contrary with lung cancer that shows an obvious increasing trend.

### **P-272 TOBACCO RELATED CANCERS IN TURKEY AND IZMIR**

S. Eser\*, P. Pisani\*\*

\*Izmir Cancer Registry

\*\*International Agency for Research on Cancer

**BACKGROUND:** Aim of this work was to quantify the size of tobacco smoking problem in Izmir and Turkey **METHODS:** We followed the methods proposed by Peto et al. (Lancet 339, 1992) and Parkin et al (Int. J Cancer 59, 1994). Incidence rates of tobacco-related cancers were obtained from the Izmir Cancer Registry for 1999-2000 and from Globocan 2002 for Turkey. Estimates of the incidence of lung cancer in non-smokers and relative risks for the other cancer sites were obtained from the large CPS II cohort of the American Cancer Society. By combining these parameters in the usual formula due to Cole & MacMahon we obtained estimates of the fraction of tobacco-related cancer attributable to smoking (AF). **RESULTS:** For Turkey, in total, 22.8% of the 65796 cancer cases can be attributed to tobacco smoking; 44.7% in males, 0.8% in female. In Izmir 26.8% of all but skin – 4640 new cases per year - is attributed to tobacco smoking; 52.6 % for male, 0.9 % for female. For Turkey and Izmir respectively the AF by cancer sites in men are as follow: 88.3%, 92.5% of lung cancers; 79.5%, 86% of larynx cancers; 60.2%, 71.2 % of oesophagus cancers; 58.5%, 70.1% of oral cavity & pharynx cancers; 41.8%, 53.2 % of kidney cancers; 40%, 52.1% of bladder cancers; 30.3%, 41.7 % of the pancreas cancers. **CONCLUSION:** Nearly half of all the cancer burden in men in Izmir and Turkey is due to tobacco smoking.

### **P-273 SMOKING STATUS FOR THE DETECTION OF CANCER RISK OF 50 YEARS AND OVER POPULATION IN DISTRICT MANSUROGLU OF BORNOVA COUNTY**

A. San Turgay\*, I. Pektas\*\*, Z. Baykal\*\*\*, Y. Cakir\*\*\*, A. Tuna Malak\*, R. Ekti Genc\*\*\*, D. Sari\*\*\*, A. Babacan Gumus\*

\*Canakkale Onsekiz Mart University School of Health Sciences

\*\*The Ministry of Health of Turkey

\*\*\*Ege University Ataturk School of Health Sciences

Background According to World Health Organization (WHO) data approximately 4.5 million people each year die because of smoking-related diseases. Smoking causes to cancer, heart, respiratory and cerebrovascular diseases. Aim The purpose of the study, individuals living in district Mansuroglu of the Bornova is to determine smoking status in terms of cancer risk Method This study is part of cross-sectional, descriptive an area research to determine of cancer risk population in Mansuroglu District of Bornova County in Izmir. Total of 2497 individuals were included in the survey. Collecting data, information form and Cigarette Dependence Scale (CDS-12) were used. Results 23.5% of individuals surveyed was smoking and 48.8% of individuals was found smoking cessation before the process of the research. According to Cigarette Dependence Scale, 71% of individuals who smoked mild dependent, the middle 29% were found to be dependent. Conclusion Nurses and other health personnel to leave the protective and supportive work programs may indicate active.

### **P-274 A CROSS-SECTIONAL SURVEY ON ACCEPTANCE RATE OF SMOKING CONTROL PROGRAM IN ADANA CITY: IMPLICATIONS FOR THE TOBACCO CONTROL PROGRAMS IN TURKEY.**

H. Burgut, E. Aslaner, Y. Sertdemir

Cukurova University, School of Medicine, Turkey

A Cross-Sectional Survey on Acceptance Rate of Smoking Control Program in Adana City: Implications for the tobacco Control programs in Turkey. 1H.Refik Burgut, 1Evren Aslaner, 1Yasar Sertdemir Cukurova University, School of Medicine, Adana, Turkey Smoking is responsible approximately one third of the total cancer cases in Turkey. Additionally one in 10 cancers is due to second hand smoking. A New Tobacco Control Laws in effect is very important step in reducing smoking. However its success is dependent on the acceptance by the population in the country. Therefore there is need to follow up acceptance rate. A cross-sectional study is conducted to investigate the acceptance rate and its predictors in Adana, Turkey. A randomly selected 559 adults were contacted by telephone and questioned. Their response on demographic, social factors and support for the control laws was recorded. Of 559 study sample, 37.7% of men and 14.8% of women were daily smoker. Approximately 80% of daily smokers smoke both at home and at work as well. In the educational institution, 32.2% of smokers and 63.8% of non-smoker, in work environment, 72.7% of smokers and 27.3% of non-smoker are exposed to the second hand smoke. 56.0% of smokers and 90% of non-smokers support the prohibition of smoking in such common places as restaurants, bars, schools and hospitals and public buildings. Allocations of special places for smoke have limited support (43% smoker vs 68.9% non-smoker). As a conclusion, there is need for additional effort to increase acceptance rate for control measure in Turkey.

### **P-276 PREVALENCE OF SMOKING & TOBACCO'S USE IN SLUM AREA OF KATHMANDU, NEPAL & CAMPAIGN**

R. Mainali, S. Kadariya

Cancer Society Nepal

Prevalence of smoking & tobacco's use in slum area of Kathmandu, Nepal & Campaign Against it. R. N. Mainali\* and President of Cancer Society Nepal Background: Tobacco consumption in Nepal has been increased day by day. The different categories of tobacco use like cigarette and Bidi smoking and guthka consumption have been reported to be increased by more than fifteen twenty percent. Per person tobacco and narcotic consumption in Nepal has been tremendously increased due to easy availability of Tobacco products, the open border and illegal trade between Nepal and India This study is dependent unempirical data obtained from the sample area, ward number 34 of Baneshwor; Shanti Nagar is the survey universe. Having slums by the side of high rise buildings. Support to filth, dirt litter. Objectives: To asses the prevalence of tobacco smoking among slum dwellers. To study the different forms of tobacco use by the squatters, to identify the socio-economic, sex, educational, psychological and other parameters that made the squatters to use the different forms of tobacco. Methods: Sampling design, data collection, data analysis, data Management. Results: The poor group of population living as squatters in the edge area of Shanti Nagar is most vulnerable to cancer due To unabated tobacco, guthkha, paan and cigarette consumption. The consumption rate has affected the young and old, male and female. Conclusions: The health care services are in poor state. Awareness towards cancer disease is limited and low; this is lowest in the poor society. of nuisance.

### **P-277 RELATIONSHIP AMONG CANCER, INDIVIDUALS PERCEPTION OF SMOKING PROS AND CONS**

M. Bektas\*, C. Ozturk\*, A. Tuna Malak\*\*

\*Dokuz Eylul University, School of Nursing

\*\*Canakkale 18 Mart University, School of Health

Among the causes of cancer, particularly the upcoming tobacco consumption has increased rapidly worldwide. This increase in tobacco use, at the same time it causes the smoking age to fall rapidly. Begin using tobacco at a young age and long-term tobacco use leads to an increase in cancer rates. Therefore, prevention of tobacco use greatly reduce the incidence of cancer is a major interventions. The most important of these intervention that determine the perceptions of people about smoking. Studies have shown that individuals with a high perception of cons of smoking is less smoking, is reflecting more positive health behavior. The studies in our country shown that individuals who high perception of cons of smoking exhibited more positive health behavior that protect theirselves to cancer. As a result, to reduce cancer cases, it is need to interventions that increase perception of cons of smoking, and decrease perception of pros of smoking.

## KETEM

### P-278 REPORT OF EARLY DIAGNOSIS AND SCREENING OF CANCER GROUP

S. Altınay\*, V. Özmen\*\*, A. Akcakaya\*\*\*, U. Topal\*\*\*\*, A. Oktay\*\*\*\*\*, H. Unlu\*\*\*\*\*, N. Özgül\*\*\*\*\*

\*Giresun KETEM Pathology Clinic

\*\*Istanbul University Medical School, Department of General Surgery

\*\*\*Istanbul Provinciale Health Directorate

\*\*\*\*Uludag University Medical School, Department of Radiology

\*\*\*\*\*Ege University Medical School, Department of Radiology

\*\*\*\*\*Department of Cancer Control

The most important factor regarding cancer in a population is diagnosing it at an early stage. In populations where cancer is intercepted at an early stage, the cancer mortality would be lower. As recommended by the World Health Organization (WHO) necessary is the establishment and implementation of a national programme on breast cancer and cervical cancer, which are prevalent in Turkey, and in which screening programs are efficient and cost-effective in reducing mortality and morbidity. METHODS The National Cancer Screening and Early Diagnosis Group have met in Ankara on 2-3 June 2008, and carried out a multidisciplinary study on cancer screening and early diagnosis programs to be implemented in Turkey. First of all, targets and strategies have been identified and potential obstacles and methods of monitoring have been laid down on the issue of breast and cervical cancers, which are prevalent in Turkey, and for which early diagnosis and a decrease in mortality can be achieved through screening programs. CONCLUSIONS There are two cancer types, for which a national screening program is required in Turkey for early diagnosis per the recommendation of World Health Organization for screening. These are the cancers of breast and cervix. The implementation of such programs, which are a requirement of development and a need of Turkish women, necessitates the embrace of the issue not as a personal matter, but as a national goal, a struggle against the difficulties faced, patience and the devotion and support of all the units concerned.

### P-279 LAST FIVE YEARS WORKS AT GAZIANTEP EARLY DETECTION SCREENING AND EDUCATION CENTER

Y. Akar

Gaziantep KETEM

We will make poster presentation in congress. This poster contains; -Last five years works at Gaziantep KETEM (Early Detection Screening and Education Center) -Statistics, Data and Results -Presentation and briefings to public by media -Education meetings (public, health personnel) -Photo of Gaziantep KETEM

### P-280 AFYONKARAHISAR EARLY CANCER DIAGNOSIS, SCREENING AND EDUCATION CENTER (KETEM) CERVIX CANCER SCREENING COMMUNITY-BASED FIRST SIX MONTHS RESULTS

Y. Anil

Afyonkarahisar State Hospital, KETEM

Introduction and objectives: Cervix cancer in women is ranked tenth in Turkey (2005, Statistics of Fight Against Cancer Department). To extend lifespan in cervix cancer is, to increase knowledge levels, to provide awareness and in the early diagnosis of cancer is the most important task of the KETEM. Within the framework of national screening standards in the range of 35-65 years in women with pap smear method is aimed to be diagnosed in early stages of cervix cancer. Methods: Scan flow chart was made. Initially, target population of 300 women were selected. Trainings were completed. On 1 June 2009 with the method of invitation screening was begun. Results: Terminology and Reporting Results of Cervical Cytology for the 2001 Bethesda system was used. Specimen Adequacy Satisfactory for evaluation: 99% (94), Unsatisfactory for evaluation: 6% (6) (unsatisfactory for evaluation of epithelial abnormality because of: Of scarcity cells: 1, intensive inflammation: 3, intensive inflammation and blood cells: 2) General Categorization Negative for intraepithelial lesion or malignancy: 90% (86) Epithelial cell abnormality: 9% (8,5) Interpretation Negative for Intraepithelial Lesion or Malignancy: 25% (24) Fungal organisms morphologically consistent with Candida species: 1% (1) Bacteria morphologically consistent with Actinomyces species: 1% (1) Shift in flora suggestive of bacterial vaginosis: 16% (15) Reactive cellular changes associated with inflammation (includes typical repair): 33% (31) Atrophy: 5% (5) Other non-neoplastic findings Atrophy with inflammation: 9% (8) Epithelial Cell Abnormalities Atypical squamous cell changes of undetermined significance (ASC-US): 8% (7) High-grade squamous intraepithelial lesion (HSIL): 1% (1) Conclusions: Pap smear test is an effective method in cervix cancer screening. Cervix cancer screening should be applied to the target population of the country. Colposcopies and consultations must be done in KETEM, it is important for definitive diagnosis and patient follow-up. Key Words: PAP smear, cervix cancer, screening

### P-281 AFYONKARAHISAR STATE HOSPITAL CANCER EARLY DIAGNOSIS DETECTION AND TRAINING CENTER 2009

A. Türe\*, Y. Anil\*\*, S. Kalaycıoğlu\*\*

\*Afyonkarahisar Province Health Directorate

\*\*Afyonkarahisar State Hospital

Introduction and Aim: Especially to emphasize the detection of society regarding breast cancer, serviks cancer and the consideration of early Diagnosis. Procedure: Cancer early Diagnosis Detection and Training Center is introduced; brochures and posters are published in order to inform public about breast and serviks cancer. The population for a pilot scheme is determined. Questionnaires for breast cancer and serviks cancer are conducted. During Cancer Weekly Activities 1-7 April and in October the local medic is

employed. The mammograms taken are evaluated by two radiologists. Betastat technique is employed in smear testing. Findings: Between the dates 01.01.2009 and 01.11.2009 totally 801 applications were taken into consideration including 334 mammography examination, 393 smear, 31 PSA, 43 GGK examination and 167 breast USG facts. In October activities, 2850 brochures and 20 posters were used. 3157 ladies were provided with training on Self-breast Examination and PAP SMEAR. 600 ladies were detected on Breast and serviks cancer beginning at 04.06.2009 in cancer with Afyonkarahisar pilot scheme. 120 smear, 68 mammography, 36 breast usg incidents were conducted. Polyclinic mammography findings; Radiopapite: 3(%10.02), Microcalcification: 1(%3.34), Pathology Asymmetric: 2(%6.62), Cyst: 17(%56.78), Fibroadenom: 3(%10.02), Lipom: 8(%26.72), LAP: 6(%20.04), Normal Findings: 294(%981.96) USG-MAMMOGRAPHY RESULTS ON PILOT SCHEME AT AGES 50-65 LAP: 3, Lipom: 1, Ductal Ectasy: 3 Cyst: 1 SMEAR RESULTS ON PILOT SCHEME AT AGES 35-65 ASC-US: (8), SIL: (0), LGSIL: (0), HGSIL: (1), VAGINOZIS: (10), NORMAL: (101) Result: Public is provided with notice on training, visual media, public detection and not fearing from cancer but being too late with the importance of early Diagnosis.

## **P-282 GİRESUN STATE HOSPITAL THE KETEM DEPARTMENT: COMMUNITY BASED BREAST CANCER SCREENING PROGRAMME FOR 5000 WOMEN**

S. Altınay\*, A. Yanlı\*\*, N. Dumlü\*\*, G. Soydemir\*\*\*, R. Okusal\*\*\*, N. Musinalı\*\*\*\*, S. Oztürk\*\*\*\*, S. Coskun\*\*\*\*\*, S. Yılmaz\*\*\*\*\*, N. Bal\*\*\*\*\*

\*Chief of Cancer Early Detecting, Screening and Training Center/Consultant Pathologist

\*\*Cancer Early Detecting, Screening and Training Center/Consultant Radiologist

\*\*\*Doctor of Cancer Early Detecting, Screening and Training Center

\*\*\*\*Nurse of Cancer Early Detecting, Screening and Training Center

\*\*\*\*\*Technician of Radiology of Cancer Early Detecting, Screening and Training Center

\*\*\*\*\*Technician of Radiology of Cancer Early Detecting, Screening and Training Center

\*\*\*\*\*Education nurse of Cancer Early Detecting, Screening and Training Center

**SUMMARY:** Giresun KETEM conducted a systematic and periodical community-based breast cancer screening. Our aim to increase the awareness of women about breast cancer and to decrease the mortality rate associated with breast cancer in Giresun. Our community-based breast cancer screening programme which is called "Wish no Wilt Womens" started on November 7, 2006, was based on National Screening Standards. Of the invited target population of 5555, the six Health Clinics performed 3548 mammography examination. The first stage of screening was conducted on November 7, 2006 and for the 956 invited women, 698 participated, while eight cases of cancer were detected. The second stage of screening was conducted on March 19, 2007 and for the 1768 invited women, 1091 participated, while twelve cases of cancer were detected. The third stage of screening was conducted on February 11, 2008 and for the 850 invited women, 619 participated, while one case of cancer was detected. The fourth stage of screening was conducted on May 20, 2008 and for the 980 invited women, 730 participated, while case of cancer wasn't detected. The fifth stage of screening was conducted on March 23, 2009 and for the 180 invited women, 139 participated while case of cancer wasn't detected. The sixth stage of screening started on October 12, 2009. The first invitation group of 821 women had 337 women participate at this moment. 5555 invited women, 3548 have had mammography examinations, (64%). Only one case of stage 1A was detected among the twenty-one cancer cases. **DISCUSSION:** Late stage breast cancer our leads to some worrisome results for women and communities. Our detection of late stage cancer cases in screening programme shows that we have to increase cancer invited awareness and the education level of community, while we give training in self-examination for breast cancer detection.

## **P-283 ADIYAMAN KETEM**

F. Pehlivan

ADIYAMAN STATE HOSPITAL

Kanser, Cancer, cancro, Krebs, 암, cancer, раковый, انطرسا..... • As a global health and life issue, cancer, is gradually gaining more importance. • Besides its fatal aspect, factors such as the expensive technology and medicine that's used for its treatment, the long lasting treatment periods, the many number of teams that take part in the treatment, bring out the economic aspect of it. • Because of these reasons, the most important point in fighting against cancer; is the diagnosis of cancer at an early or curable stage in order to decrease the incidence and death rate. • The most important aim of KETEM's which are established for this purpose; is to try create arousal related with cancer in the society, and to inform people about protection from cancer and the screening programmes, through face to face educations. • Adiyaman KETEM, has set off with the 'early diagnosis saves life!' principal, and is leading screening programmes related breast, cervix and colorectal cancers. • Our aim is to make cancer a subject that can be approached by talking and not hiding away from, and at the same time explain that it's preventable to the society and to run national screening programmes.

## **P-284 EVALUATION OF THE LAST 5 YEARS**

G. Kaya

ELAZIG KETEM

**Summary** In our age, the health is being defined as "not only the absence of illness or disability, but also the complete wellness condition in terms of physically, spiritually, and socially" by World Health Organization. There are three dimensions of the health, which are protection, treatment, and rehabilitation. According to recent data from last years, cancer is a community health problem. The importance of primary and secondary preservation will be clearly understood especially if it is taken into the consideration that the emergence of the cancer can be prevented, the death ratio can be minimized with scanning, and the quality of life can be improved by the early diagnosis. This study is planned to evaluate the services given by Cancer Early Diagnosis, Scan, and Training Center (KETEM) at Elazig Practice and Research Hospital during the last 5 years, to determine the inadequacies, and to plan the services to be given in the future. According to this research, which is in a descriptive attribution, a total of 25290 people applied to KETEM in between the years 2005 and 2009. The 56.1 % (14193) of these people applied to the Gynecology Polyclinic and 43.9 % (8797) to the Breast Polyclinic, respectively. A total of 7545 smear sample were taken and 3730 mammography were shot. Abnormal cells were determined among 5.2 % (393 people) of the taken smear samples and 6 cases took diagnostic for the Cervix Cancer. The mammographies of 1107 people were considered as suspicious and 16 cases were diagnosed as Breast Cancer. As a result, it is possible to determine both the cervical and breast pathologies in their early stages by scanning programs at Cancer Early Diagnosis,

Scan, and Training Centers (KETEM). Early diagnosis is important at cancer. Hence, it is important to increase the number of the Cancer Early Diagnosis, Scan, and Training Centers and to support the existing ones.

### **P-285 ERZURUM KETEM**

G. Tanas

ERZURUM KETEM

We aimed at initiating a society – based search program and informing the society about cancer etiology and the importance of the cancer early diagnosis and its methods. Methods are as follows: 1. Preparing education programs 2. Method of invitation We trained 527 people in our city at the Public Training Centers in 2009. In our province, service training was given to 200 nurses, 246 midwives, 105 doctors and 33 medical secretary. In November, 2009, an invitation program was prepared for women, 50 – 69, in Yildizkent, by being chosen as a pilot region. In November and December, 1000 invitations were sent out. It was intended to reach 7000 people until the December, 2010. In view of the February, 2010, Smear was administered to the women, 30 – 69, and MMG program, to the women, 50 – 69, working in our hospital. More and more brochures are being handed every day in our hospital. By completing the society – based search program in our pilot region in 2010, it was planned to spread this program in the province as a whole. In our province, it was intended to form a cancer search conscious related to this issue.

### **P-286 COMMUNITY BASED CERVICAL CANCER SCREENING PROGRAMME IN KARS**

B. Un Aksoy, Z. Altun

KARS KETEM

Aim : Cervical cancer is the second most common malignancy of women following breast cancer in the world. Overall 493.000 new cases are diagnosed and 274.000 women die of disease at each year. Among the women genital system malignancies It is the only cancer having efficient screening programme, therefore the vast majority of the cases could be early diagnosed and treated effectively. Our aim of this study is to increase awareness of cervical cancer, for that purpose women educated about symptoms, prevention methods and screening programmes, their pap smears were taken and evaluated for neoplastic and infectious changes. Materials and methods: Community based screening programme is aimed in 9 different areas of Kars. A total number of 1118 women (%78 of target population) with an age range of 30-69 were screened between April- december 2009. Obtained smears sent to pathology laboratory and results of cytological analyses were reported according to 2001 Bethesda classification. Results: Analysis of cervical smears revealed that: normal pap smear tests in 367 (32.8%) women, benign changes related to infection in 746 (66.7%) cases, cervical epithelial cell anomalies in 5 cases (0.4%); of these cases 4 (0.4%) had atypical squamous cell of undetermined significance (ASC-US), 1 woman had squamous cell carcinoma. Conclusion: Increasing awareness of cervical cancer will significantly increase participation in screening that play a great role in decreasing of cancer incidence. KETEM have an important role in increasing awareness, understanding and discussion of cervical cancer.

### **P-287 DETERMINATION OF KNOWLEDGE, ATTITUDE AND BEHAVIOURS OF HEALTH STAFF ABOUT SELF BREAST EXAMINATION**

B. Un Aksoy, Z. Altun

KARS KETEM

Aim: Breast cancer is very important health problem with increasing incidence among women in the World and Turkey. KETEM polyclinics give education to women about cervical and breast cancers, how to do self breast examination, healthy diet, adverse effects of smoking. Women were screened for cervical and breast cancers. Our primary aim of this study is to detect how much importance is given to self breast examination by the health staff. Material and Methods: The data was collected by using a questionnaire, which was set up from 22 questions regarding their knowledge about and attitude to self breast examination and breast cancer. Results: This cross-sectional study was performed in Kars in november 2009. 195 women (97% of target population) aged between 18-59 participated in this study. 171 (87.7%) women know how to do self breast examination, 101 (50.8%) of them had received information from service training, 135 (69.2 %) women examined their breasts at least once in a time, 71 (36.4%) women perform self breast examination regularly once in a month, 147 (75.4 %) know that cancer is a treatable disease when diagnosed early. Most commonly known cancer symptom is mass (88.7%). Conclusion It was seen that after the educational activities health staff became more aware of the breast cancer symptoms, self breast examination but is far from adequate. More educational activities are needed to reach adequate level of knowledge and awareness about breast cancer.

### **P-288 SAKARYA DIRECTOR OF HEALTH SAKARYA YENIKENT STATE HOSPITAL CANCER EARLY DIAGNOSIS SCRENING AND EDUCATION CENTER CERVICAL CANCER SCRENING FOR COMMUNITY-BASED SCRENING AREA**

I. Afsari\*, H. Katioz\*\*, Z. Zengin\*, E. Akar\*\*\*, M. AcikyoI\*, C. Topdag\*\*\*, O. Durak\*\*\*

\*Sakarya Director of Health

\*\*Sakarya Yenikent State Hospital

\*\*\*Sakarya Cancer Early Diagnosis Screning and Education Center

Objective Pap Smear has an important place in early detection by working with health centers which were selected as pilot area; to increase awareness of importance of saving lives. Methods: Women whose ages range in between 35-65 from kazimpasa,kemalpasa and Kurtulus were determined from household detection receipts; they were invited. The training for people to be done screening took place with visual presentation. Smear was taken from women. Results: Cervical cancer screening which started on February 2009 still continues. 765 smears were taken. it was found that 19.3% of Kemalpasa, 8.8% of Kazimpasa, 22.2% of Kurtulus community previously has information about smear. 72 of them menstruate irregularly, and 546 of them went through menopause from women. 93 women had previously undergone gynecological operation. 758 Benign cellular changes were found in the pathology results; diagnosis of atrophy was found in 73 of them, of inflammation was found in 72 of them. complaint was found in only 40 women that these results were found. Low-Grade Servikal Intraepitelyal Lesion was found in 5 women. High Grade Servikal

Intraepitelyal Lesion (HGSIL) was found in 1 woman. Subject which HGSIL was found in 1 woman. Subject which ASCH was found did not undergo smear before and it was found that she has no complaint. Conclusion Smear can have normal values in line with complaints of women, and smear of those who has no complaint doubtful results.

## **P-289 COMMUNITY BASED BREAST CANCER SCANNING OF 50-69 YEAR OLD WOMEN LIVING IN MANISA HOROZKOY NUMBER 3 FAMILY HEALTH CENTRE REGION**

G. Yorgancigil\*, T. Gunduz\*\*, N. Karatas\*\*\*, C. Durmus\*\*\*, F. Sen\*\*\*, K. Erdurak\*\*\*\*, S. Etiz\*\*\*\*, Z. Tay\*\*\*\*

\*Manisa Merkez efendi dev. hast. Ketem

\*\*Celal Bayar University Voluntary of Health Service, Associated Professor

\*\*\*Manisa Merkez Efendi State Hospital Early Cancer Diagnosis , Screening and Education Centre (Ketem)

\*\*\*\*Manisa Health Board.

Introduction: The aim of this study was to screen the prevalence of breast cancer in women living in the province of Manisa. Also, to overcome the lack of knowledge about the subject and to reduce the rate of related death rate by early diagnosis were aimed.

Methods: The aim of this study was performed on 18/02/2009 - 31/07/2009. Interviews with all of the women (1245) living in the Horozkoy region of Manisa were performed, 891 of them accepted to take part in the study. All participants signed informed consent forms. Physical and mammographic examinations of the breasts were performed. Those who had suspicious mammography results were consulted by the surgery and advanced investigations were performed. Results: Those 117(13%) persons who had suspicious mammography were examined by ultrasound. Thin needle aspirations and excisional biopsies were performed in two persons and their pathological results were benign. Conservative surgery and axillary lymph node dissection was carried out in one patient with the diagnosis of early phase invasive breast carcinoma. The income of these women 638 (71.6%) were insufficient, on average they had given 6.42 births, only 18 ( 2%) had taken hormone replacement for more than 5 years. Conclusion: Participants have acquired an increased consciousness of cancer. The women who participated in the screening being of high par and having used hormonal medication only for a little length of time might have caused the decrease in the development of breast cancer.

## **P-290 MANISA 1ST KETEM DAYS**

G. Yorgancigil\*, N. Karatas\*, C. Durmus\*, F. Sen\*, K. Erdurak\*\*, S. Etiz\*\*, Z. Tay\*\*, S. Taydas\*\*\*

\*Manisa Merkez Efendi State Hospital Cancer Early Diagnosis, Screening and Education Center

\*\*Health Manager, Manisa

\*\*\*Municipality City Council Women's Board

Abstract. Manisa KETEM is a screenable cancer testing center for asymptomatic people who are under risk. The objectives of these activities are to promote KETEM to our community, to inform the public on cancer, to give an initiative message, and to create agendum. METHOD • The event was planned as a 3-day activity on 08-09-10/6/2009. • The project was split among cooperating institutions (MAKAME, CBU). • Equipment was prepared (banners, stands, brochures, invitations). • Activity program was announced with billboards and banners. Necessary permissions were obtained. • Folk dance teams and music bands were arranged. Activity Program: Activities were promoted with on TV. The opening was held in the presence of local press with the participation of the protocol on 06/06/2009. Day I: expert physicians on the sun, its effects and skin cancer Day II: gynecologic cancer Day III: speakers from Celal Bayar University on risks of breast cancer for women who use hormones; the importance of psycho-social support for cancer patients Furthermore; breast cancer patients diagnosed at KETEM shared their experiences with the attendees. Participants had a pleasant time enjoying the music played by bands and the dances of folklore teams. Handiwork of MAKAME members also received great attention. CONCLUSION • Approximately 1000 people attended the first year activities. • MAKAME and KETEM demonstrated a pleasant cooperation against cancer, a significant public health issue. • Our belief that in the long term there should be involvement of other civil organizations, consciousness-raising and traditionalization of these activities was planned.

## **P-291 SAKARYA DIRECTOR OF HEALTH SAKARYA YENIKENT STATE HOSPITAL SAKARYA CANCER EARLY DIAGNOSIS SCREENING AND EDUCATION CENTER BREAST CANCER SCREENING COMPLAINTS AND MAMMOGRAFI AND ULTRASOUND RESULTS CASE MANAGEMENT**

I. Afsari\*, H. Katizoz\*\*, Z. Zengin\*, F. Onsu\*, E. Akar\*\*\*, M. Acikyol\*, M. Kara\*\*

\*Sakarya Director of Health

\*\*Sakarya Yenikent State Hospital

\*\*\*Sakarya Cancer Early Diagnosis Screening and Education Center

Introduction and Objectives: The objective is to increase awareness regarding the importance of diagnosing breast cancer early with screening methods by Cancer Early Diagnosis and Education Centers (KETEM). Methods: The community based screening in pilot regions, the target population; fifty-sixty nine year old age women were identified and were invited. Seven hundred eighty six women were tried to diagnosed by examining the breast of the patient, taking mammography, ultrasonography of the cases considered necessary and taking biopsy. In BIRADS-five diagnosed cases mammographies spiculer mass was found, hypoechic solitary mass lesion in ultrasonographies was determined. Invasive ductal carcinoma was determined in biopsies taken. Results: Of seven hundred eighty six individuals, six hundred seventy six of them were taken mammography and found; five BIRADS-zero; seventy four BIRADS-one; fifty twenty four BIRADS-two; sixty BIRADS-three; ten BIRADS-four; three BIRADS-five. Thirty tree people had mass complaint. According to ultrasonography results of mamografy results of BIRADS-four, two of them as invasive ductal carcinoma to biopsy result. In the mammography of the cases determined cancer, asymmetric density increase. Multiply pleomorphic hyperdens calcification accompanys was observed. Hypoechoic screening which contours consisted of hyperechogenic focuses in ultrasonographies. Five mammography results were found as BIRADS-four although they didn't have any complaint. One was found contour irregular spicular dens mass in right breast and when it's correlated with ultrasound, contour irregular hypoechic solid lesion was found. Depending on biopsy result, breast cancer was determined. Conclusion: The importance of early diagnosis with mammography and education should be paid attention in order to enhance cancerscreening conscious so the importance of KETEMs is coming to the forefront.



## **P-292 THE PATIENT MANAGEMENT IN THE OPPORTUNIST AND COMMUNITY BASED BREAST CANCER SCREENING IN CANCER EARLY DIAGNOSIS SCREENING AND EDUCATION CENTERS**

I. Afsari\*, H. Katioz\*\*, Z. Zengin\*, E. Akar\*\*\*, M. Acikyol\*

\*Sakarya Director of Health

\*\*Sakarya Yenikent State Hospital

\*\*\*Sakarya Cancer Early Diagnosis Screening and Education Center

**Introduction and Objective:** We aim to raise awareness of the importance of early diagnosis of breast cancer with primary secondary tertiary prevention methods. We aim to reach solution by organizing education with primary prevention, by providing screening services with secondary prevention, and by applying required process for treatment of controls of cancer diagnosed cases with tertiary prevention or providing referrals. **Methods:** Breast examination was made to one thousand and eighty hundred forty three women who are over twenty years old and breast self examination education was given to each women. Mammography was applied to eighty hundred nineteen women whose ages are in between fifty-sixty nine and ultrasonography was applied to one hundred ninety three women. Biopsies were done to cases which were deemed necessary. **Results:** In one woman, BIRADS four-A was found in ultrasonography despite there is BIRADS-two result in mammography. Biopsy was taken and the result was lobular hyperplasia. Microcalcification was found in three of seven women who are BIRADS-four. Breast cancer was diagnosed in three women whose mammography results are BIRADS-four. Two women who are BIRADS-four were dense appearance, complicated cysts in one ultrasonography were found, biopsy was taken, result was normal. **Conclusion:** It is to make follow up and management of breast cancer screening on a regular basis to the public, to make treatment of follow up of cases which breast disease were found by general surgery specialist, to make operation of cases that breast cancer was diagnosed to make chemotherapy of the cases that require chemotherapy in Yenikent Hospital and thus it allows easier to follow up and treat patients within their own province.

## **P-293 RESULTS OF COMMUNITY-BASED BREAST CANCER SCREENING REPORT SUMMARY**

S. Ercan, M. Mucuk, E. Temiz

Kayseri-KETEM

**The Aim:** -Community-based breast cancer screening for women to apply -Breast cancer awareness in society about the increasing - To teach breast self-examination and to explain the importance -To emphasize the importance of early diagnosis of cancer -To reduce breast cancer mortality and to increase percentage of early diagnosis in cases diagnosed Metarials and **Methods:** Kayseri Provincial Health Directorate, Kayseri State Hospital, Kayseri KETEM and Hisarcik Family Healty Center have been included in the study. The results of breast cancer screening of women who are between the ages of 50-69 and have been living in 5 districts containing Kayseri Hisarcik and Kiranardi regions were evaluated and data were shown in table. The women who: -Living in Kayseri Hisarcik region -The ages of 50-69 -Not diagnosed breast cancer before -Agreed to participate in the screening program have taken part in the screening. **Findings:** -Target population: 623, participation: 452 -Percent coverage in screening: %72.55 -According to the results of the screening, it is found that 2 women are breast cancer. -The Cancer Incidence is 0.44% **Result:** It can be clarified that the reason of high incidence is low population. **Suggestions:** • Ketems must study with the primary medical establishments. • The level of knowledge is enhanced by given training but the continuity of education should be provided. Scans are required.

## **P-294 CANCER EDUCATION PROGRAM IN BARTIN CANCER EARLY DIAGNOSIS SCREENING AND EDUCATION CENTER (BARTIN-KETEM)**

H. Kendirli\*, S. Acar\*, N. Guni\*, N. Oz Keceli\*, O. Bayraktar\*, S. Dikyurt\*\*, I. Kavakli\*\*, S. Senel\*\*, O. Nacaroglu\*\*

\*Bartın Cancer Early Diagnosis Screening and Education Center

\*\*Bartın Provincial Directorate of Health

**INTRODUCTION AND OBJECTIVES:** Cancer is the second most common conventional cause of death in the world. The goal of the project is to increase public awareness, provide education concerning early detection (screening, early diagnosis) and ultimately contribute in reducing the incidence of cancer among the people in the province of Bartın in the future. **METHODS:** In light of these aims, The Bartın-KETEM conducted public education activities concerning causes of cancer, and the role of personal responsibility for cancer prevention ( i.e. breast self examination) at schools, community centres, in villages, health care centres and hospitals. This educational activities were provided by one specialist doctor, two midwives, two nurses and one medical technologist between December 2008 and December 2009. The educational program was included;(a) electronic (i.e. tv ) and printed media message (i.e. brochures) information about cancer, (b) direct education program in lecture format consist of briefly 50 minutes power-point presentation about cancer (cervical, breast, colorectal, skin, prostate) and prevention from cancer and breast self-examination.(c) providing up-to-date information about cancer and cancer screening to physicians, nurses and midwives in the community. **RESULTS:** In the project, totally 15718 people were given training by Bartın-KETEM. Since educational program began in December 2008, more than 75000 brochures have been distributed about cancer in this educational activities. In addition to these activities, 3 television and 4 radio programs were presented at the BTV media channel .

## **P-295 TO ASSESS 2007 TO 2008 PAP-SMEAR STUDIES**

H. Fidan

Directorate of Mugla Health authority

Cervix cancer is second cancer type, which is frequently seen among women in the world today. particularly, high percentage cause of death in developing world. Between 2007 and 2008, 673 women to apply for cervix cancer test those who attended for test considered very carefully. however, the age, possibility of smoking taken account, families background in term of any cancer incident, educational background, age of first sexual relationships, number of birth, and cytology of the patients are considered. Women who became part of our survey, some figures are indicated as follows:260(%38) of them age between 40 to 49,525 women(%78)are not smoking,668 women(%99)have not cervix cancer background at all,396 women(%58)are educated (read and write), only 11 women (%1.6) attended to further education or university, 461 women (%68) first sexual relationship are over age 19,606 women(%90)have children between 1 and 3,396 women(%58)in term of cytology research, result are normal and 268 women(%39.8) found infection

and 9 women(%1.3) ASC-US found it. In conclusion, cervix cancer is preventable cancer type. If cervix cancer diagnosed very early stage it would be treatment available as well as possible, get over it. Particularly, cancer treatment of the developing countries now are very advanced. Therefore, KETEM has significant role to play and task is very important one. Also, Women have no any health problems or complaining, have to regularly attend for cervix cancer test, time to time. This consciousness also need to address among women population too.

#### **P-296 INVESTIGATION OF BREAST CANCER RISK FACTORS**

O. ÇIKMAN\*, H. Yener\*, L. CELİK\*, S. Gumus\*, Y. UNAL\*\*, Z. TANRITANIR\*\*

\*Doctor

\*\*Nurse

**Introduction and Aim:** The study was designed for evaluating breast cancer risk factors and BIRADS scores. **Methods:** 50-69 year-old women who attended to KETEM breast clinics in Van between January1- December25, 2009 were investigated. Women were inquired about breast cancer risk factors through specially designed registration forms. Double sided mammogram was done for both breasts and the results were evaluated according to BIRADS criteria. SPSS for Windows 16.0 Software was used. **Results:** 777 women aged 50-69 attended to KETEM clinics. Risk factors were each compared with mammography results. BIRADS type4 and malignity results, and risk factor groups were found as follows: of those whose menarche age was 13-14, 6 had type4, 2 had breast cancer; of those whose menopause age was 35-45, 4 had type4; of those whose menopause age was 46-50, 1 had type4; of those whose menopause age was 51-55, 1 had type4, 1 had malignity; of those whose menopause age was  $\geq 56$ , 1 had type4, 1 had malignity; of those who breastfed for 49-72 months, 2 had type4, 1 had malignity; of those who breastfed for  $\geq 73$  months, 4 had type4, 1 had malignity; of those who had never breastfed 1 had type4; of those who had 6-9 children, 5 had type4, 2 had malignity; of those who had  $\geq 10$  children, 2 had type4; of those who had their first child at age 13-30, 7 had type4, 2 had malignity; of those whose family history had no breast cancer incidence, 7 had type4, 2 had malignity; of those who never had hormone replacement therapy, 7 had type4, 2 had malignity.

#### **P-297 INVESTIGATION OF SERVIX CANCER RISK FACTORS**

L. CELİK\*, H. YENER\*, M. ÇAKARTAS DAGDELEN\*, Y. UNAL\*\*, Z. TANRITANIR\*\*

\*doctor

\*\*nurse

**Introduction and Aim:** Evaluation of 30-65 year-old women, who attended to VAN KETEM clinics between 01.01.2009-11.12.2009, in terms of Servix Cancer risk factors. **Method:** Servix risk factors in 2963 women aged 30-65 who attended to KETEM clinics between the given dates were investigated through specially designed registration forms, including questions about risk factors (age at first marriage, fertility characteristics, smoking habit, presence of postcoital pain and bleeding). Pap smear samples were collected and tested. Results were evaluated using SPSS for Windows 16.0 Software. **Results:** The mean age of attendees was found to be  $43.07 \pm 9.1$  (minimum 30, maximum 65). The mean age at first marriage was  $16.78 \pm 2.8$  (minimum 10, maximum 47). The results from 2963 Pap Smear samples were as follows: 1989 inflammation, 698 normal smear, 192 Atrophic vaginitis, 70 insufficient material, 15ASCUS, 7HSIL, 1ASC-H and 1HPV. Of the 1918 women who had Pap smear test for the first time, 14 were given ASCUS, 1ASC-H, and 6 HSIL diagnosis. It was notable that when fertility characteristics were considered, almost all of early servical lesions were detected in multipar women but no statistically significant correlation was found. Risk factors such as presence of postcoital pain and bleeding or smoking habit were not associated with the results. Although it was notable that 21 of 23 women with pre-cancer lesions had married before they were 17 there was no statistically significant correlation. **Decisions:** Due to weaknesses of the study such as adoption of opportunistic screening and insufficient representation of the population by the present sample size, no statistically meaningful relationship was found between the risk factors and the results obtained. But it is considered notable that all or almost all pre-cancer lesions were detected in women who were younger at first marriage and were multipar.

#### **P-298 GİRESUN STATE HOSPITAL THE KETEM DEPARTMENT (CANCER EARLY DETECTING, SCREENING AND EDUCATION CENTER) BREAST CANCER AWARENESS MONTH EVENTS ON OCTOBER 1-31, 2009.**

S. Altınay\*, R. Okusal\*\*, N. Bal\*\*\*, A. Bal\*\*\*\*

\*Chief of KETEM

\*\*Doctor of KETEM

\*\*\*Education nurse of KETEM

\*\*\*\*Medical director of Hospital

**INTRODUCTION - PURPOSE:** Breast cancer is the most common cancer among women all over the world, one of every five new cases of cancer is breast cancer. The most important point in breast cancer is cancer prevention and early diagnosis. For this purpose, screening programs and KETEM centers should be provided to learn for all individuals. **MATERIAL AND METHOD:** Hospital employees were trained about "Breast Cancer and Prevention Methods" issues in conference hall of the hospital. Many informations as a slight show which is about breast cancer were exhibited on LCD screen in hospital and 1500 brochures were distributed. Information desk was established between October 1-31 in hospital. "Breast Cancer and BSE" issues was held in the program by a local TV channel. KETEM logo was used on T-shirts which are going to be used for a walk is named "We are walking for Breast Cancer" and 700 brochures were distributed during walk. The exhibition which name is 'Don't live with suspicion' was opened in art gallery. The billboards were opened about the Breast Cancer Month and its walking. The panel was held on solidarity for breast cancer patients in our department. Wives of Co-supervisor of the civil institutions have been trained about "Breast Cancer Screening Program" by KETEM's experts. **CONCLUSION:** KETEM screening program was introduced and KETEM has been forwarded for people are BSE training and cancer screening to a broad public audience in the activities of Breast Cancer Month.

#### **P-299 CANCER EARLY DIAGNOSIS, SCREENING AND EDUCATION CENTER (KETEM) RESEARCHES,**

## **YALOVA, 2009**

C. Meydan

Yalova KETEM

Nowadays, breast and cervical cancer has gradually become an important health problem. From those two cancers, breast cancer takes place on the top after lung cancer among female-specific cancers. Research, it is done to determine services of KETEM with the trainings in our center about breast and cervical cancer in between 1st January 2009 and 31st November 2009. Material Methodology Trainings given in our province coordinated with our Center in 2009 and applications' characteristics taken in our Center during the same term were analysed. Findings Training sessions in 2009 are 19 and participants are 469. Average participants number is 24.7 per-session. 958 applications were made to our Center in a year. 308 (%37.4) of mammography, 300 (%31.3) of pap smear were required from those applications. After those applicants breast cancer in two females were ascertained (%0.2). Results Trainings coordinated by our Center in 2009 were given totally to 469 people. In the same term, 958 people were got service from our Center. As a result of KETEM services to those people, cancer in two females were ascertained.

## **P-300 THE ASSESSMENT OF STANDARD OF KNOWLEDGE AMONG WOMEN AGED 20-65 YEARS ON CERVIX CANCER**

D. İldes Demiral, E. Sen, A. Unal, H. Senel, P. Atasoy, H. Deniz

Early Diagnosis of Cancer Screening and Education Center Kirikkale

Introduction and Aim: Cervical carcinoma of the uterus is the most common cancer of women in underdeveloped countries and second common worldwide. Its early detection and treatment is relatively easy among all genital system cancers. In this study, the level of knowledge on cervix cancer, its risk factors and prevention methods of women who were presented in Kirikkale 70 Yil Cumhuriyet Family Health Center was evaluated. Method: 527 women between ages 20 and 65, who were examined in Kirikkale 70 Yil Cumhuriyet Family Health Center between December, 1st-31st, 2009 were enrolled in the study and face-to-face questionnaire technique is used. SPSS v.10.0 was used to evaluate the data and chi-square test was used for statistical analysis. Results: Mean age of the study group was  $38.6 \pm 11.75$  (20-65). Among 527 women, 64.3% said that they've never heard of pap smear before and %63.2 hadn't have the test. According to 68.9% of the participants smoking and according to 60.5% of them polygamy is a risk factor for cervical carcinoma. 68.3% of women didn't know anything about HPV as a risk factor for cervical carcinoma of the uterus. Discussion: As the education level of the population increases, the rate of those undergoing Pap smear test increases ( $p < 0.005$ ). It's understood that most of the participants acquire their knowledge of cervical carcinoma of the uterus from media and is insufficient. It's vital that healthcare providers should dominate the informative process and the frequency of the public educational works should be increased.

## **P-301 PUBLIC HOSPITAL OF CORUM, CERVICAL CANCER SCREENING**

F. Goksal, A. Eker

CORUM KETEM

Goals: To educate the acoucheuses and nurses who work in Public Hospital of Corum about cervical cancer and to provide early detection of current cases. Methods: Names and age lists of the acoucheuses and nurses who work in Public Hospital of Corum have been taken. Target population that is between 35-65 age group has been determined. Screening dates have been scheduled between 15.10.2009-15.11.2009. Education about cervical cancer has been provided for the people in groups who have participated to screening. Cases have been invited to KETEM by appointment. Incoming people have been consulted and had smear tests by uploading. Cases have been informed about their pathology results and they have been followed-up. Findings: The number of the acoucheuses and nurses who work in Public Hospital of Corum has been determined as 413. Screening age has been defined between 35-65. Target case number has been determined as 189 by disqualifying 205 under 35 years old, 13 pregnant and 7 hysterectomic cases. Smear tests of 171 cases has been done. The rate of participation to screening has been found out as 90%. Pathology results: 2 ASC-US, 12 bacterial vaginosis, 3 candida, 8 inflammation, 146 normal cases have been found out. The 2 cases who have ASC-US have been followed-up. Results: Selected group screening makes it possible to early detection of the cases. In addition to that, it gives us information about the social structure of the group and individual differences.

## **P-302 BAHCELIEVLER NEIGHBORHOOD CORUM CERVICAL CANCER SCREENING**

F. Goksal, A. Eker

Corum Ketem

Introduction and Goals: Determining the rate of access to target population by screening selected areas and emphasizing the importance of early detection. Methods: Part of Bahcelievler neighbourhood was selected by Corum KETEM as the screening district. Target population for screening was determined by using records from primary care physicians of selected districts. Data was obtained by delivering invitations to households and to patients visiting KETEMs. Patients visiting KETEMs for screening were educated about cervical cancer, and consultations and smear tests were done. The Public Hospital of Corum provided financial funding for the project. Findings: Target population was determined to be 1257 women between 35-65 years old. 77 of these women were disqualified. 1040 of 1180 invited cases contributed to screening and smear tests for a contribution rate of 88%. According to pathology, the results included 5 ASC-H, 32 ASC-US, 275 inflammation and 756 normal smear tests. The ASC-US cases had smear tests every 6 months. After being monitored, 2 cases with ASC-US and 5 cases with ASCH had colposcopic biopsies. A hysterectomy was performed on 1 case with a biopsy-diagnosed cervical cancer. Conization was performed on 1 HGSIL case after biopsy. Results: From selected area cancer screening, early detection is possible by delivering invitations in person; late detections caused by lack of information and ignorance can be prevented.

## **P-303 KIRIKKALE CANCER EARLY DETECTION (KETEM) CENTER ANNUAL REPORT OF YEAR 2009**

H. Guven\*, D. İldes Demiral\*\*, E. Sen\*\*, A. Unal\*\*, E. Akbaba\*\*, Y. Kavlak\*\*\*, S. Koksall\*\*, I. Demir\*\*

\*Kirikkale State Hospital

**\*\*Early Diagnosis of Cancer Screening and Education Center Kirikkale**

**\*\*\*Kirikkale Provincial Health Directorate**

**Aim:** Our aim is to report Ketem annual results about clinical examination, mammography and ultrasound scans, breast biopsies and Pap smear's. **Methods:** In this retrospective study, patients who applied directly and who were summoned as a part of public based screening program to Ketem and who were referred to our center for mammographic evaluation from other clinics between 01.01.2009-31.12.2009 were evaluated based on their follow-up charts. **Results:** As a part of breast cancer screening program, 3789 otherwise healthy people were investigated in our Ketem. All patients were informed about self examination technique of the breast. According to their risk factors and age, further workup was planned. As a result, 23 of them had benign findings on radiological screening ; among whom underwent open surgical biopsy, 5 of them were diagnosed as infiltrating ductal carcinoma, 3 had infiltrating lobular carcinoma, 1 had mucinous breast cancer, 1 had DCIS and 2 had DIN1a. Pap smear test was applied to 1867 patients where according to pathological evaluation, 51 were reported as "atypical squamous cells", 11 had "atypical glandular cells", 1 had "low-grade intraepithelial squamous lesion" and 1 was diagnosed as "high-grade intraepithelial squamous lesion". **Discussion:** The prior aim of cancer screening and education services is to cause awareness about cancer and to detect possible cases in very early stages. Detecting cancer cases in early stages reduces treatment durations and costs and increases overall survival rates and quality of life in cancer patients.

### **P-304 THE FREQUENCY OF BREAST CANCER AND RISK FACTORS THAT INFLUENCE THE DISEASE IN WOMEN THAT CONSULTED ANTALYA KETEM**

**S. Durak, S. Aydin, D. Coskun**

**Antalya Early Diagnosis, Screening and Education Center (KETEM)**

**AIM:** To compare the data and the risk factors of the women that have received a diagnosis of breast cancer after opportunistic screening in KETEM. **MATERIAL-METHOD:** An examination monitoring form for each women that have consulted the center for screening is completed with their personal information, risk factors, examination findings and the consultation results, which is saved in the computer database created. A breast examination is done to each women, and mammographies are taken for those over forty or those under forty that are in high-risk (family history etc.). In this study, the data was obtained from "Examination Monitoring Form" database. Chi-squares method was used in the statistical analyses. **FINDINGS:** The results of 12751 women who have consulted KETEM since 2003 were studied. Consequently, breast cancer was histopathologically proved for 93 (0,73%). The average age of 93 women who received a breast cancer diagnosis was  $48.45 \pm 12.51$ . Age, marital status, age at first birth, number of births, family history of breast cancer, breast feeding and smoking were analyzed as the risk factors that influence breast cancer. Being at age 50 and over, family history of breast cancer, and first birth at age 30 and over were determined statistically meaningful ( $p < 0,05$ ). **RESULTS:** It was observed that findings were in accordance with general literature. The findings will be demonstrated on the poster broadly.

### **P-305 EVALUATION OF THE KNOWLEDGE AND BEHAVIOURS OF WOMEN POPULATION ABOUT BREAST CANCER AND CERVICAL CANCER**

**G. Hiraali\*, S. Temuroglu\*, G. Akbey\*, B. SAHIN\*\***

**\*KILIS KETEM**

**\*\*Responsible of Cancer Control Department ,Kilis Directorate of Health**

**OBJECTIVE:** This study aims to evaluate the knowledge and behaviour of women population about breast cancer and cervical cancer . **METHODS:** A questionnaire containing eight questions was prepared by our center. The questionnaire was applied to five hundred women. **RESULTS:** From the questionnaire, it was seen that 62% of participants have knowledge about breast-self examination (KKMM), 38% of them don't have . 49% of the participants answered 'yes' and 51% of them answered 'no' to the question "Do you practice KKMM?". It was understood that 58% of 243 women who practiced KKMM did it regularly. To the question "Do Pap smear test should be done?" 83% of participants answered 'yes', 17% of them answered 'no'. 35% of 443 married women had Pap smear test done, 65% of them didn't. To the question "Why didn't you have a Pap smear test done?" 54% answered as 'I have no complaints'. **CONCLUSIONS:** Even though the 62% of participants know KKMM it has been seen that 49% of them make KKMM. This result shows us that the studies of informing and raising awareness should be done. 65% of the participants did not have a Pap smear test done. As seen from these results the participants don't know that the screening tests like Pap smear should be done to healthy people who have no complaints. In Turkey women do not have the habit of referring to physicians regularly. Thus ,informing and awareness raising studies should be done. Increasing the education studies on early diagnosis will not only help decreasing the deaths and deformities but will also reflect positively on national economy. Finally, community-based cancer screening and education studies should be supported.

### **P-306 BREAST CANCER SCREENING AMONG WOMEN IN RIZE, TURKEY**

**S. Fener, N. Karafazlioglu**

**ketem**

**Objective:** The objective of this study is to examine the pattern of breast cancer screening in Rize among the women aged from 17 to 77 and to compare it by corresponding the results of mammography and/or ultrasonography and their heredity of cancer. **Methods:** Data is obtained from the files of the women who attended to KETEM. The results of mammography and/or ultrasonography were used as outcome variables: self-reported heredity of cancer, gestational age . **Results:** 297 women were included in this study . The results suggest that mean of the number of births' and standart deviation is 1.403. 19 % of the participants had not given birth , the age of the pregnancy were 20-22 with standart deviation 1.396-1.078 and mean 2.95-3.19. 176 of the women were examined by ultrasonography; 91 of the results were reported as normal(%28.8), normal with axillary lymphadenopathy was only one(%0.3), fibrocyst and dense mammary gland was reported for 8 individuals(%2.5), simple cyst was reported for 14 women (%4.4), solid lesion was 6(%1.9). 116 mammographies were taken; 10 (%3.8) were reported as benign microcalcification. 20 (%7.7) were reported as normal, 27(%10.3) women were described as low sensitivity for detection and the ultrasonography was needed. 18(%6.9) women were reported as fibrocystic, opacity was reported in 8(%3,1).

### **P-307 EVALUATION OF CYTOTOXIC ASCUS IN CERVICAL SMEARS IN TERMS OF PREMALIGNANT AND INVASIVE LESIONS**

Y. Iskender\*, S. Zorlu\*\*, A. Kostakoglu\*\*, S. Ofluoglu\*\*

\*University, Trabzon KETEM

\*\*High School, Trabzon KETEM

**SUMMARY Objective:** To compare the methods used in evaluation of ASC-US cytology on Pap-Smears. **Method:** Clinico-pathological data of 3652 women who had undergone a conventional Pap-smear test in Trabzon KETEM during 2008. **Results:** Median age of the study group was ....(17-77). Of these patients, 170 were diagnosed with an ASC-US cytology (4.65%). Overall, regression rate of ASC-US cytology was around 86.5% among patients with a one year follow-up (90/104). Initial work up was a repeat cytology with 6 months intervals in 76 patients and immediate colposcopy in the remaining 94 patients. Fifty-two patients in the immediate colposcopy arm was decided to undergo a direct biopsy which revealed 14 CIN and 2 CIS. Final pathology revealed one CIS and one normal pathology in those 2 CIS cases. Forty-two patients had normal colposcopic findings and were decided to follow-up by Pap-smears with 6 months intervals. Neither of the patients in initial Pap-Smear Arm (n=76) and initial normal colposcopic findings arm (n=42) developed a cancer during follow-up. There was only one CIS case in the abnormal colposcopic findings arm (n=52) and no invasive carcinoma was seen in this group of patients. **Conclusion:** ASC-US is a relatively frequent pathology seen in population based screenings. Majority of these cases regress spontaneously within one year. The rate of finding an underlying carcinoma is also very low in ASC-US smears.

### **P-308 EVALUATION OF ACTIVITIES DONE IN 2009 BY KIRIKKALE CANCER CONTROL UNIT**

G. Kuyumcu\*, E. Demiral\*, E. Sen\*\*, H. Tonga\*, N. Karatas\*, H. Tercan\*

\*Kirikkale province, directorate of health

\*\*Kirikkale Cancer Early Diagnosis, Screening, Education Center

**Introduction and Objectives** Kirikkale Cancer Early Diagnosis, Screening, Education Center (KETEM) is working unit related to Cancer Control Unit in Directorate of Health (CCU). Our aim is to evaluate education and awareness campaigns, activities of breast, gynecology polyclinics in KETEM, diagnosed benign and malignant lesions, to take precautions after creating awareness about issue. **Methods** This is descriptive study carried out by screening retrospectively three-month follow-up reports, activity reports, patient files referred from KETEM to CCU between 1 January-31 December 2009. **Results** In 2009, 2223 patients applied to activities of breast polyclinics, 2005 to gynecology polyclinics. Out of benign breast lesions, 11 were found to be fibroadenoma, 6 fibrocystic disease, 5 intraductal papillomatosis, 2 atypical ductal hyperplasia, 2 ductal epithelial hyperplasia, 3 apocrine metaplasia, 5 periductal mastitis, 1 granulomatous mastitis, 1 adenosis, 1 ductal ectasia, 1 lipogranuloma, 1 adenomatosis. Out of 13 breast cancers, 6 were found to be infiltrative ductal cancer, 3 infiltrative lobular cancer, 1 mucinous cancer, 2 ductal intraepithelial neoplasia, 1 low grade ductal carcinoma-in-situ. Out of papsmear results, 748 were found to be normal, 255 with atrophic findings, 800 with inflammatory findings, 51 with ASCUS(atypical squamous cells of undetermined significance), 11 with AGUS(atypical glandular cells of undetermined significance), 1 with LSIL(low grade squamous intraepithelial lesion), 1 with HSIL(high grade squamous intraepithelial lesion). Under Cancer Awareness Program, 569 persons were given in-service education, 6979 persons were given public education. **Conclusions** The patients were educated about precancerous lesions, referred for further investigations, patients diagnosed with cancer were under treatment and follow-up. Under Cancer Awareness Program 2009 still under functioning.

### **P-309 IGDIT KETEM CANCER SCREENING**

U. Ozkan

Igdir Ketem

As Igdir KETEM , our goal is to diagnose and start treating breast and cervical cancer, frequently detected in women, without giving clinical findings. Through our scanning programme 1. have educative meetings, 2. invite the people of the risk groups, 3. do MMG, smear and USG scanning. During our home visit in October-November 2009, we reached to 1000 people. Our goal for 2010 is to reach 10000 people. All health care centers in the city center have been visited, informed and asked to orientate the woman under risk to our hospital. We have been conducting our studies with 'Family Planning Center' supported by Ministry of Health. 20 officer working in this center have informed the women they visited about KETEM and oriented them to us. Our goal for 2010 February; smear scan to all women between the age of 30-69 working in our hospital and MMG scan to all women between the age of 40-69. Our goal for 2010 is to apply these scanning on all women working in various government institutions (municipality, governorship, ect).

### **P-310 AGE 35 FOR STARTING CERVICAL SCREENING: IS TURKISH GUIDELINE AGE THRESHOLD REALLY REASONABLE?**

H. Yucel\*, Z. Erol\*\*, I. Kat\*\*\*, M. Demir\*\*, S. Cikay\*

\*sanliurfa kadin hastaliklari ve dogum hastanesi ketem birimi

\*\*sanliurfa kadin hastaliklari ve dogum hastanesi

\*\*\*bursa 27 nolu aile sagligi merkezi

**Objective:** Turkey is a very crowded country with a huge target female population to screen. Turkish National guidelines suggest to start the screening at age 35. Every lady should have at least one Pap screen until the age of 35. This study aims to evaluate if this age limit efficient or not for our population. **Method:** A total of 7785 patients who were screened for cervical cancer by conventional cytology in the province of Urfa during 2007 and 2008 was retrospectively evaluated. Patients were divided according to their ages as <35 vs. ≥35 years age. **Results:** Median age of the 7785 patients were 36 (14-93). 3463 (46.8%) of the total population was <35 years of age and remaining 4322 was ≥35 years (53.2%). 44 patients (1.2%) with <35 years of age had cytologic abnormality (ASCUS in 18, LSIL in 25 and ASC-H in 1 patient). This figure was 2.2 % (n=97) in the elderly group (ASCUS in 44, LSIL in 59, HSIL in 8, ASC-H in 8, AGC in 3 and Carcinoma in 1 patient). Cytologic abnormalities were significantly higher in the elderly group compared to patients with <35 years of age (P=0,01). Furthermore, severe cytologic abnormalities (>LSIL) were also more

significantly higher in the elderly group ( $P=0.001$ ). Conclusion: The rate and severity of cytologic abnormalities increase significantly after the age of 35. This age limit suggested by National Turkish Guideline is reasonable for a population based screening of crowded communities like Turkey.

### **P-311 ATTITUDES OF UNIVERSITY STUDENTS TOWARDS SMOKING AND TURKISH ANTI-SMOKING LAW**

G. Celik, M. Yuksel, M. Semerci, S. Seckin

KETEM, Amasya

Objective: The aim of the study is to evaluate the attitudes of university students toward smoking and anti-smoking law (number 5727) Method: A questionnaire was administered to the 899 university students in the province of Amasya who accepted to participate to the study. Data were analysed by descriptive statistics. Results: Of these 899 students, 376 were male (42.2%) and remaining 523 (58.8%) were female. Mean age of the group was 20.2 (range, 17-30). About 39.4% of 888 students were found to be still active smokers while additional 45.2% have experienced smoking previously in their lives. The mean age for the first smoking experience was 15.0 (range, 5-21). Male population was found to be smoking significantly higher than the female population (31.6% vs. 8.1%). Major impacting factor to start smoking was found to be the effect of friendships (30.1%) boredom, stress (20.4%) respectively. However, despite to all of these figures; almost 77% of the students have enough information about the harmful effects of smoking and 90% actually support the new anti-smoking law 5727. Conclusions: A high percentage of young population still have a smoking habit which is significantly higher in males. However, a great majority know the harmful effects and even support the anti-smoking law. Mean age to start smoking is very young and to decrease the high prevalence of smoking, strategic educational plans aiming to create a difference in behaviours, should be targeted on preliminary school ages, particularly on males.

### **P-312 AGAINST CERVICAL CANCER PAP SMEAR SURVEY**

S. Kaya Karadag, V. Dogan, G. Canpolat Ozbay, G. Cevik Sahiner

Malatya KETEM

Purpose: March-May 2009 in the region between Ozalper Health "National Cervical Screening Program" pap smear screening in women by 592. Material - Methods: Rubbing with a brush with disposable 360o increase from cervix received spread of material running in alcohol-based spray with slide prepared with fixing material, PAP (Papanicolaou) method with the staining was evaluated by the pathology expert. Classified according to the Bethesda system. Evaluation study, socioeconomic status, the city - in rural areas, childbirth, breastfeeding made the separation. Conclusion: 2 months long crawling from 592 samples. Cytological examination of all samples was performed. As a result of investigation: 99% (587) atypical cells are not detected 0.3% (2) ASCUS, 0.1% (1) H-SIL, 0.1% (1) L-SIL, 0.1% (1) squamous type cell was observed. Intraepithelial lesions, the 5 women for the second step further tests were taken to health facilities. Decision: Research has shown that, in asymptomatic cancer simple diagnostic methods, regional, is effective in catching cancer has not spread. Pap smear analysis is a cancer screening test. The goal is to catch precancerous lesions. Definitive diagnosis of cervical biopsies placed. Instead of every woman pap smear results from the biopsy of suspicious cases to biopsy is more effective method. Test with various infections that can be diagnosed. Pap Smear test, 30 to 65 years of age is a screening test applied to women. The test results come out positive indicates that further tests should be done.

### **P-313 THE ANNUAL EVALUATION OF EDIRNE PROVINCIAL HEALTH DIRECTORATE CANCER REGISTRATION CENTER DATA FROM 2004 TO 2008**

N. Boztas

Edirne Provincial Health Directorate

Introduction and Objectives Identify the current situation of those patients diagnosed with cancer and expose their requirement of ministration by the Edirne Province Directorate of Health Cancer Registration Center from 2004 to 2008. Material and Method This study was conducted by the Edirne Province Directorate of Health Cancer Registration Center from 2004 to 2008 on the people in the province diagnosed with cancer ( $N=4492$ ). In this study we used the data, which was registered in CanReg4 program by active Cancer Registration Centers. The data was statistically evaluated using SPSS version 15.0. Result 62.4 % of the patients were male, while 38.6 % of the patients were female. The average age of the men was  $61.85 \pm 13.7$  while the average age of the women was  $59.14 \pm 16.1$ . The top five most common cancers in men were: lung 32%, skin 13%, bladder 6%, prostate 6%, stomach 5%. The top five most common cancers in women were breast 20%, skin 16%, colon 6%, stomach 5%, uterus 4%. The rate of the development of respiratory, digestive and urogenital cancer was higher in men than in women. The rate of the development of endocrine cancer was higher in women than in men ( $P<0.05$   $\chi^2 = 1560.994$ ). Conclusion Special attention should be paid to the top five most common cancer types by Edirne Province Directorate of Health Cancer Registration Center.

### **P-314 2008 - 2009 YEARS BELONGING TO EXAMINATION, EVALUATION OF THE RESULTS OF MAMMOGRAPHY AND BREAST BIOPSY, MAMMOGRAPHY'S EFFECTIVENESS.**

S. Kaya Karadag, V. Dogan, G. Canpolat Ozbay, G. Cevik Sahiner, S. Caliskan, Z. Cinar

Malatya KETEM

Purpose: Be considered in the context of opportunistic screening of those who admitted to our center and be evaluated, and early detection of breast cancer, even if you have complaints after certain age is to provide periodic inspection. Applications for this purpose in the center to evaluate and creating awareness of cancer screening program is to apply. Material - Methods: 2 year follow-up during the new applicant or continued to control patients in the context of national cancer screening program evaluation done in the form of opportunistic screening. Breast examination results, the right and left breast mammography and 45o slope planted with 90o radiographs taken, experts recommended by physicians for patients evaluated the results of the ultrasound. The evaluation findings were encoded with numbers. (0) normal (1) benign (2) malignant (3) results do not bring Findings - Results: 2490 cases; Examination 1324 - (0) (53%), 1154 - (1) (46%), 12 - (2) (0.4%) Mammography 1232 - (0) (41%) 328 - (1) (13%) 12 - (2) (0.4%) 918 - (3) (37%) Breast biopsy 44 - (0) (45%) 40 - (1) (41%) 13 - (2) (13%) On the age of 50, 14 to cases (78%) Under the age of 50, 4 to

cases (22%) were diagnosed with ultrasound diagnosis of malignancy. Suggestions: 50 years and over to scan in women, screening is necessary to create awareness joined. Mammography in early detection of breast cancer; cheap, effective, and the gold standard is a way.

### **P-315 STUDIES OF THE NIGDE KETEM FOR THE YEAR 2009**

B. Kocaman Dagli, I. Kandiltas, R. Eryilmaz, F. Ozkul, G. Bulut, H. Ozbek

Cancer Early Diagnosis, Screening and Education Center (KETEM), Nigde State Hospital

Introduction and objectives: In our study in 2009, the evaluations of breast examination, mammography, breast ultrasonography, gynecological examination, pop-smear sampling, PSA and GGK screening results of KETEM are intended. Methods: Our presentation has been prepared by investigating the KETEM patient files and the Cancer Control Unit between the dates 01.01.2009 and 31.12.2009. Results: In 2009, there were 5769 presentations to the KETEM breast polyclinic. Each of these cases underwent breast examinations and other appropriate examinations dependent upon their age group and risk factors. 2302 mammograms and 1181 breast ultrasonographs were taken. 11 of 27 cases which has diagnosed with breast cancer in Nigde were determined by KETEM. 3054 pap- smears have been taken. 49 ASC cases and 2 ASC-H cases were determined and also 2 of 4 cases which diagnosed with cervical cancer in Nigde province have been determined by KETEM. 1672 GGK and 534 PSA screening were taken. There have been no cases of diagnosis of colon cancer and prostate cancer in year 2009. Conclusions: It is known that the contributions of screening are vitally important for early cancer diagnosis. With this aim, Nigde KETEM showed success in early diagnosis of cervical cancer and breast cancer in 2009. We should continue our studies to increase the public's awareness of early diagnosis and also we should incite them to join screenings. Keywords: Nigde studies of KETEM

### **P-316 DETERMINATION OF BREAST CANCER AWARENESS IN NIGDE PROVINCE**

B. Kocaman Dagli, I. Kandiltas, R. Eryilmaz, F. Ozkul, G. Bulut, H. Ozbek

Cancer Early Diagnosis, Screening and Education Center (KETEM), Nigde State Hospital

Introduction and objectives: Breast cancer is an important public health problem especially for women in our society. Therefore, we aimed a prospective study involving women over 20 years old to examine and determine their behaviours, attitudes and level of knowledge about breast health and breast cancer. Methods: A survey among 318 women in Nigde was designed to determine the extent of breast cancer awareness. Results: The following are key findings from the survey. Do you believe in importance of early diagnosis cancer? 285 (89.6) of the female respondents answered yes. 202 (63.5) female has been know breast self examination (BSE) and 119 (58.9) of these 202 female had learned BSE by a health person. However, while 172 (54) female receive BSE, only 47 (27.3) of them receive BSE once a month. While 111 (34.9) women received clinical breast examination (CBE), 207 (65.9) of them didn't receive CBE. Do you believe that family history of breast cancer is a risk factor? 231 (72.6) of the respondents answered yes. 177 (55.6) female respondents believe that being overweight increases cancer risk. 253 (79.5) women believe that breast feeding reduces their risk of breast cancer. Our survey shows that women with breast problems first consult a gynecologist, then KETEM and surgeon general respectively. Conclusions: We concluded that women in Nigde have general knowledge and awareness of breast cancer. However, most of them they have not received CBE and don't have BSE which is an important part of early diagnosis.

### **P-317 BOLU IZZET BAYSAL STATE HOSPITAL CANCER EARLY DIAGNOSIS, SCREENING AND EDUCATION CENTER ACTIVITIES YEAR OF 2009**

D. Curuk

Cancer Early Diagnosis, Screening and Education Center

Purpose: To make people aware of the cancer the extensiveness of which is increasing and to especially inform all health staff and public about the contribution of smoking and nutrition to cancer in order to increase the attendance of them to the screening programme. Methods: People have been informed via printed and visual press frequently. Conferences have been held. The importance of the matter and the KETEM department have been tried to be introduced by public and in-service trainings. Approximately 700 people received those trainings. Within the scope of screening programme based on public we have cooperated with the family doctors and invitations have been sent to the houses and we have tried to increase the attendance. Conclusion; Within the scope of the screening based on public in Bolu we have observed that the sensitivity of the public and attendance to the screening programmes have increased with respect to breast, cervical, colorectal and prostate cancers. Summary: I Do Not AFRAID, I Am AWARE, I Do Not ALONE, AND I Am PARTICIPATION.

### **P-318 BREAST SELF EXAMINATION (BSE): CURRENT ATTITUDES OF WOMEN IN THE PROVINCE OF TOKAT IN TURKEY**

T. Solmaz

Tokat State Hospital, Cancer Early Diagnosis Screening and Training Center

Objective: Turkish guidelines offer a BSE for all ladies once in a month following the cycle. This study aimed to evaluate the current knowledge and attitude of women about BSE. Material and Method: A questionnaire about BSE was applied to 600 women between ages of 20-69, who had applied to Tokat KETEM during year 2008. Results: Median age of the patient population was 45.3±11.4. About 64.0% of the study group was between 20-49 years old, 48.8% was primary school graduate and 88.2% was married. A majority (62.5%) of patients did never heard about how to do BSE and a similar amount (61.2%) have never done BSE previously in their lives. Only about 5.2% of the patient population was performing regular BSE with the right timing and frequency. The most striking factor for not practicing regular BSE by ladies was the lack of information (48.4%). Age, education situation, marital status, children number, working situation, regular salary income and healthcare assurance were the significant determining factors for knowing BSE ( $p<0.05$ ). For regular and proper BSE practicing, being informed about BSE and believing on the necessity of BSE were the most significantly important factors ( $p<0.05$ ). Conclusion: A majority of the women population does not have sufficient information about BSE and therefore does not practice BSE properly. Therefore, KETEMs have an important role for education of ladies in their provinces and increasing awareness against breast cancer that will make a change in behaviors and attitudes of

ladies for BSE within time.

### **P-319 INVAZIVE DUCTAL CARCINOMA AND SCREENING PROGRAMS**

**A. Kurt**

Education and Investigation Hospital, Erzurum, Turkey (Egitim ve Arastirma Hastanesi, Erzurum, Turkiye)

Invasive ductal carcinoma which is a very common type of breast cancer, can affect women at any age; the women get older, the invasive ductal carcinoma (IDC) seems more. The evidence for the effectiveness of screening is strongest for women ages 50 to 69 years; however, there is variation in the target age group for screening programs between different countries. In particular, there is uncertainty about whether women should continue screening once they reach age 70. We therefore investigated incidence rates for invasive ductal carcinoma by age. As we see lots of patients around Erzurum who are young, it is pointed to IDC at ages 30-50, and early diagnosis is reminded. When IDC is reviewed in this area, numbers of patients who are younger than 50 in our archives are 140/ 262 respectively. More than half of women who have IDC are younger than 50 in Erzurum and Van. Mean age of women with IDC was 50.3. The highest frequency of malignancies was observed in the 40-49 age group. Being of 5-year survival 73% in developed countries and 53% in underdeveloped countries may be because of screening programs. Because of mammography has less specificity in patients younger than 40 and may have some drawbacks, it seems that early diagnosing methods must be developed for women who are at 40-49 and even 30-49 especially who have risks.

### **P-320 BALIKESIR BREAST CANCER SCREENING PROGRAM**

**E. Unal\***, **M. Ertugrul\*\***, **M. Gokce\*\***, **S. Sevinc\*\***, **A. Kemaneci\*\*\***, **A. Aksit\*\*\***, **E. Bulbul\*\*\***, **H. Hocaoglu\***, **M. Tuncer\*\*\*\***

\*Department of General Surgery in Balikesir State Hospital

\*\*Balikesir State Hospital Cancer Early Diagnosis and Screening Center(KETEM)

\*\*\*Department of Radiology in Balikesir State Hospital

\*\*\*\*Chairman, Department of Cancer Control, Ministry of Health

**INTRODUCTION:** Breast cancer is the most frequent and most deadly type of cancer observed in women throughout the world. The most important screening method for reduction the mortality rate of breast cancer is mammography. **METHOD:** Determining the women at ages 50-69 among the targeted population. Giving training on breast self-examination to each women and ensuring the implementation of the breast examination. Conduction mammography shots of each women. Carrying out medio-lateraloblique and craniocaudal bidirectional mammography shots. Carrying out mammography evaluations by two radiologists with the method of double-reading. Determining the screening interval as 2 years is confirmed as the method. **FINDINGS:** In the first stage of screening, 1435 women out of 1933 women which was the target population (74.2%) participated to the screening. Breast cancer diagnosis was defined for 2 cases (0.1%). In the second stage of the screening, 1356 women out of 1866 women which was the target population (72.66%) participated to the screening. Breast cancer diagnosis was defined for 5 cases (0.4 %). In the third stage of the screening, 1082 women out of 1857 women which was the target population (58.26%) participated to the screening. Breast cancer diagnosis was defined for 6 cases (0.6%) **DISCUSSION-RESULT:** Among the targeted population, 2 women in the first stage and 5 women in the second stage were defined to have early cancer and were directed towards treatment. 6 women in the third stage were defined to have early cancer. Third stage of the screening is still continues.

### **P-321 KISECIK REGION OF HATAY PROVINCE CERVICAL CANCER SCREENING BETWEEN WOMEN AGED 35 AND 40.**

**E. Nazlican\***, **M. Akbaba\*\***, **H. Koyuncu\*\*\***, **N. Savas\*\*\*\***, **B. Karaca\*\*\*\***

\*Hatay Il Saglik Mudurlugu

\*\*Cukurova U. Tip Fak. Halk Sagligi AD.

\*\*\*Antakya Devlet Hastanesi KETEM

\*\*\*\*Mustafa Kemal U. Tip Fak. Halk Sagligi AD.

**Aim:** Cervical cancer is the most frequently seen genital system cancer in women after endometrium adenocarcinoma. In this ailment there are two peaks. The first one is around the ages 35-39, the second one is around the ages 60-64. The aim of the study is to scan cervical cancer among the women between the ages of 35-40 in the district of Kisecek health office and by educating the women to raise consciousness. **Methodology:** This study is a definitional, society based sectional study performed among the women between the ages of 35- 40 in the district of Kisecek in Hatay. 187 women between the ages of 35- 40 were enrolled to the study; 10 out of 187 women who were single were not included to the study. The study was completed after enrolling 150 women out of 177. Cervical smear samples were taken from the participants; and these samples were evaluated in a pathology laboratory according to the Bethesda 2001 scale. **Findings:** The average age of the participants was 37,55±1,77. After the evaluation of the cervical smears in the pathology laboratory, the results were normal for 73 participants (%48,7). 36 participants (% 24,0) had non specific inflammation, 20 participants (% 13,3) had bacterial vaginosis, 19 participants (% 12,7) had seconder reactive changes to the inflammation and 2 participants (% 1,3) was reported to be ASC-US. **Results:** By the help of cheap and easily applied Pap smear test, society based scanning programmes can be performed frequently and thus; servical lesions may be detected in early phases.

### **P-322 SCREENING OF OPPORTUNISTIC CERVIX CANCER**

**M. Gokce\***, **M. Ertugrul\***, **G. Guckan\*\***, **E. Ates\*\*\***, **E. Unal\*\*\*\***, **H. Hocaoglu\*\*\*\*\***, **N. Ozgul\*\*\*\*\***

\*1) EARLY DIAGNOSIS AND SCREENING CENTRE OF BALIKESIR STATE

\*\*2) DEPARTMENT OF PATHOLOGY OF BALIKESIR STATE HOSPITAL

\*\*\*3) BALIKESIR STATE HOSPITAL KETEM + OBSTETRICS AND GYNECOLOGY CLINIC OF BALIKESIR MATERNITY AND CHILDREN'S HOSPITAL

\*\*\*\*4) LIABLE MEDICAL DOCTOR AT KETEM OF BALIKESIR STATE HOSPITAL

\*\*\*\*\*5) MEDICAL SUPERINTENDENT OF BALIKESIR STATE HOSPITAL

\*\*\*\*\*6) DEPARTMENT OF CANCER CONTROL, MINISTRY OF HEALTH



**INTRODUCTION:** In Cervix Cancer, successful screening programmes are applied with pap smear tests. Pap smear test is an easy-applicable and inexpensive method. Balıkesir KETEM conducts the Opportunistic Cervix Cancer Screening Programme, which started in March 2005 and is planned to be completed in 2010. **METHOD:** -Getting the smear from the women at 20-69 ages, stopping the smear screening when two negative tests are taken for women over 65 years old. -If necessary, VIA-VILI extrapolations should be done. -Obeying the sterilization carefully. -Getting smear from two regions consisting of the cervical os and back fornix. -The cells taken are to be provided to be blister with the material taken by being waited for ten minutes at the rate of 95% alcohol. -When necessary, holding consultation, doing colposcopy; applying biopsy. -Training on cervix cancer once a week. -It has been adjusted as a method that the screening periods should be 5 years. **FINDINGS:** As of 15th December 2009, the smear was taken from 3453 women at 20–69 ages. 352 people were held consultation by a gynecologist. 64 smears have been suspicious. 42 women have been given colposcopy, and 41 women have been applied biopsy. Invasive cancer has been diagnosed for 2 cases, CIN3 for 6 cases, CIN2 for 2 cases and CIN1 for 2 cases. **DISCUSSION and RESULT:** Awareness increase has been obtained by training every woman attending the screening on cervix cancer. Cervix cancer has been found in two women. 6 women diagnosed CIN3, 2 women diagnosed CIN II, and 2 women diagnosed CIN I have been watched over and taken treatment.

### **P-323 SAKARYA HEALTH AUTHORITY SAKARYA CANCER EARLY DIAGNOSIS, SCREENING AND EDUCATION CENTER(KETEM) AWARENESS STUDIES BY SAKARYA HEALTH AUTHORITY AND CANCER EARLY DIAGNOSIS, SCREENING AND EDUCATION CENTER**

F. Onsu<sup>\*</sup>, Z. Zengin<sup>\*</sup>, E. Akar<sup>\*\*</sup>, S. Gursel<sup>\*</sup>, H. Bektas<sup>\*</sup>

<sup>\*</sup>Sakarya Health Authority

<sup>\*\*</sup>Sakarya Cancer Early Diagnosis, Screening and Education Center

**Introduction and Objective:** To evaluate the activities aimed at increasing awareness in the matter of the importance of early diagnosis in cancer and screening activities which are done in the week of cancer and breast cancer awareness raising month. **Methods:** During 2009, 1937 people over the age 20 who are determined in pilot areas and made appointment have been examined within the scope of clinic breast examinations and cancer determination has been done, a questionnaire to 328 people has been applied in terms of the activities Cancer Week. By Health Authority In first examination of 9848 people as totally and in second examination 5063 people as totally have been informed and 138 suspicious masses were determined by making breast examinations of 14911 people. Breast self-examination and breast cancer educations were given to 14541 people between 15-49 ages in a year. 179 students were trained, 516 people were trained in other group educations. Totally 15236 people were trained in the subject of breast self-examination and breast cancer education. **Results:** Breast cancer in 9 people has been determined by KETEM. In the questionnaire applied to 328 people, it's determined that %14.3 (n=47) of them smoke cigarettes, %48.5 (n=159) of them have a cancer story in their family and %35.6 (n=117) of them have a death in their family related to cancer. **Conclusion:** 2390 women have been educated in breast self-examination subject in order to raise awareness related to breast cancer. Awareness of society are tried to be raised and education services are conducted with Health Authority by KETEM's starting studies after establishment.

### **P-324 THE KNOWLEDGE AND ATTITUDE ABOUT PAP SMEAR AMONG WOMEN AND THE UNDERLYING INFLUENTIAL FACTORS**

A. Ozer<sup>\*</sup>, E. Bankaoglu<sup>\*\*</sup>, H. Ekerbicer<sup>\*</sup>, M. Hudayioğlu<sup>\*\*</sup>, M. Ozdemir<sup>\*\*</sup>

<sup>\*</sup>Kahramanmaraş Sutcuimam University, Medical Faculty, Department of Public Health, Kahramanmaraş, Turkey.

<sup>\*\*</sup>Local Health Authority, Kahramanmaraş, Turkey.

**Introduction and objectives:** The present study has been conducted to investigate the knowledge and attitude of women within 16-77 age range about Pap smear and reveal the influential factors. **Methods:** We conducted our study between November – December 2009 on 1218 women who were within 16-77 age range and living in the central district of Kahramanmaraş province. **Results:** Mean age of women included in the study was 42.4±9.9. 64.1% of the study group had an educational background of primary school or below. 31.3% (381) of the participants knew the purpose of the Pap smear test and 29.1% (354) reported having Pap smear. Among women who received Pap smear, the results of 345 individuals were normal, whereas 9 had infection. The rate of knowledge about the purpose of Pap smear was significantly higher among working women compared with the housewives, and in women above 30 age compared with those aged below (p<0.05). As the education level elevates, the rates of having Pap smear and knowing the purpose of the test, increase, as well. **Conclusions:** The rates of having Pap smear and knowing the purpose of the test are low. Therefore, widespread education should be provided on the importance of pap smear test.

### **P-325 EVALUATION OF 2007-2009 CANCER RECORDS IN KAHRAMANMARAS PROVINCE**

A. Ozer<sup>\*</sup>, E. Bankaoglu<sup>\*\*</sup>, H. Ekerbicer<sup>\*</sup>, M. Hudayioğlu<sup>\*\*</sup>, M. Ozdemir<sup>\*\*</sup>

<sup>\*</sup>Kahramanmaraş Sutcuimam University, Medical Faculty, Department of Public Health, Kahramanmaraş, Turkey.

<sup>\*\*</sup>Local Health Authority, Kahramanmaraş, Turkey.

**Introduction and objectives:** Our aim is to evaluate the cancer records between 2007-2009 in Kahramanmaraş province. **Methods:** The records of 1523 cancer patients reported to the Cancer Screening Unit of Health Directorate between 2007-2009, were retrospectively evaluated. According to the 2009 census, the population of Kahramanmaraş was 1.037.491. **Results:** Mean age of the cases was 59.1±16.5 (min-max: 3-104). While 1.8% of the patients were ≤ 15 years of age, 23.7% were between 16-49, 21.3% were between 50-59, 24.0% were between 60-69, and 29.2% were ≥70 years of age. 53.5% (n=813) of the patients were male and 46.6% (n=710) were female. The number of reported cases was 505 in 2007, 451 in 2008, and 567 in 2009. Most common 3 cancer types among men in 2007 were skin (n=62), lung (n=50), and prostate (n=47), whereas among women, they were breast (n=63), skin (n=43), and genital organs (n=33). Most common 3 cancer types among men in 2008 were skin (n=49), lung (n=42), and prostate (n=39), whereas among women, they were breast (n=47), skin (n=43), and genital organs (n=26). Most common 3 cancer types among men in 2009 were prostate (n=68), lung (n=32), and skin (n=28), whereas among women, they were breast (n=63), skin (n=43), and genital organs (n=39). **Conclusions:** While most common cancer type was prostate cancer among men, it was breast cancer among women.

### **P-326 AN EXAMPLE OF COMMUNITY-BASED CERVICAL CANCER SCREENING**

A. Bayrakci, M. Demicier  
Aksaray Devlet Hastanesi

**Introduction and Objectives** Cervical cancer is an important public health problem among adult women. Pap-smear test is cost-effective, accepted by society. Women, residing in Kargin is a town of Aksaray, informed about cervical cancer and pap-smear. Between ages 35 to 65, in the target population to achieve community-based screening and early diagnosis Methods Kargin Town, near to the city center, recording regularly and health clinic personnel to volunteer to our first community-based screening was seen as appropriate. Health clinic personnel have been trained on the subject of cervical cancer, was told the importance of screening and increased motivation. Training on breast self-examination, reproductive health, genital organ cancers and screening program were given to the women who live in the town throughout the project. Interviewed with The Municipality of Kargin, the opinions received advice and support for higher participation. The people of the town, with cloth banners and announcements will be made cancer-related education and screening was announced. Clinical records has been set as the target population of 170 people. Women do not participate in screening opinion to face or by telephone were invited to the screening. Results 98.82% of (168 of 170 participants) the target population joined screening. As a result of pathological assessments; 15 patients were consultations, 8 of them were evaluated as atypical squamous cell (ASCUS), 3 patients were referred to Ankara for biopsy. Conclusions Mobile Scanning Car is used to increasing participation. This study demonstrates that programs implemented through community-based organizations can be successful in increasing Pap test screening among low-income women.

### **P-327 LIVES COME WITH CANCER EARLY DIAGNOSIS, SCREENING AND EDUCATION CENTER**

A. Bayrakci, M. Demicier  
Aksaray Devlet Hastanesi

**Introduction and Objectives** In this Project, the activity of KETEM Aksaray introduced since 2005. Explained the importance of KETEM for people. Methods What's KETEM mission? • To explain the importance of early detection of cancer • Cancer is a disease that can be controlled and can be pre-training participants and the public to tell us. • Cancer in our people by providing information and awareness, to improve the quality of their lives. • Take responsibility for our people to ensure the body herself. • Early detection of cancer in our country with substantial savings can be done to show expenditure. What we do? • Information and awareness trainings • World Cancer Day events • Poster presentation study on billboards • Breast Cancer Awareness Month in October of Educational studies • Survey about Breast and Cervical Cancer. • Community-based breast cancer and cervical cancer screening In our studies focused point: how early diagnosis, the better for everyone Results Health spending continues to increase every day around the world. Reduce health care spending will be possible with early diagnosis. Early diagnosis, a much higher probability of recovery is much shorter and means the treatment is painless. Conclusions About the importance of early diagnosis of cancer should be given much more. Studies should be done to guide our people to KETEM. Organizations such as KETEM provide public cancer screening and ensure the early diagnosis of existing cases of cancer.

### **P-328 AN EXAMPLE OF COMMUNITY-BASED BREAST CANCER EDUCATION AND SCREENING**

M. Demicier, A. Bayrakci  
Aksaray Devlet Hastanesi

**Introduction and Objectives** Breast cancer is very important health problem and the most common cancer type among women in Turkey. The goal of this project was to improve the use of breast cancer screening among low-income, women age 50 and older. Women, residing in Kargin is a town of Aksaray, informed about breast cancer and breast self-examination (BES). Methods Kargin Town, near to the city center, recording regularly and health clinic personnel to volunteer to our first community-based screening was seen as appropriate. Health clinic personnel have been trained on the subject of breast cancer, was told the importance of screening and increased motivation. Training on breast self-examination, reproductive health, genital organ cancers and screening program were given to the women who live in the town throughout the project. Interviewed with The Municipality of Kargin, the opinions received advice and support for higher participation. The people of the town, with cloth banners and announcements will be made cancer-related education and screening was announced. Clinical records has been set as the target population of 92 people. Women do not participate in screening opinion to face or by telephone were invited to the screening. Results 96.74% of (89 of 92 participants) the target population joined screening. As a result of pathological assessments; One patient was consultation and referred to Ankara for biopsy. Conclusions This study demonstrates that programs implemented through community-based organizations can be successful in increasing screening among low-income women. Two general types of studies have tested interventions to improve breast and cervical cancer screening rates, community- and practice-based.

### **P-329 EVALUATION OF BREAST SELF EXAMINATION AND MAMMOGRAPHY PRACTICE ALONG WITH THE INFLUENTIAL FACTORS IN A GROUP OF WOMEN**

A. Ozer\*, E. Bankaoglu\*\*, H. Ekerbicer\*, M. Hudayioğlu\*\*, M. Ozdemir\*\*

\*Kahramanmaraş Sutcuimam University, Medical Faculty, Department of Public Health, Kahramanmaraş, Turkey.

\*\*Local Health Authority, Kahramanmaraş, Turkey.

**Introduction and objectives:** To evaluate the breast self-examination (BSE) and mammography practice along with revealing the influential factors among women within 20-69 age range. Methods: The current study has been conducted between October – December 2009 on women within 20-69 age range and living in central district or district centers of Kahramanmaraş province. 1543 individuals were enrolled in proportion with the populations of the central district and district centers. Results: The mean age of women included in our study was 43.1±11.4. 53.0% of the study group were found to perform BSE. The rate of women performing BSE significantly increases with the elevation of the education level ( $p<0.05$ ). Women who had a mother or a sister with breast cancer were found to perform BSE significantly more frequently ( $p<0.05$ ). Moreover, women who suffered a breast disease previously were also found to perform BSE significantly more frequently ( $p<0.05$ ). 47.0% of the study group noted that they did not perform BSE. The reasons behind not performing BSE among those 725 people were considering it as unnecessary in 36%, lack of knowledge in 53.0%, failure to remember in 9.5%, and fear in 1.5%. 20.9% of the women included in the study reported receiving mammography at least once. As the age advances, the rate of mammography examination increases. Conclusions: 53.0% of the study group mentioned performing BSE and 20.9% reported receiving mammography at least once. The most common reason for not performing BSE was lack of knowledge on the procedure. This result shows the importance of BSE education.

### **P-330 EDUCATIONAL ACTIVITIES OF MARDIN KETEM IN YEAR 2009**

S. Bayrakci\*, V. Inan\*, D. Atayoglu\*, O. Unel\*\*, M. Akbas\*\*

\*Mardin KETEM

\*\*Health directorate

Purpose: Telling people the importance of early diagnosis in cancer; educating women about self breast examination; informing people and health personnel about breast and cervix cancer screening methods. Informing people about KETEM. Activities In order to educate health personnel in Mardin and provinces, both State Hospitals and health facilities are called before to determine the time and place of educations. According to plan educations about self breast examination and breast cancer using Powerpoint presentations and breast examination model are given. Cervix cancer and the screening method smear test is told. Personnel is informed about KETEM and pamphlets and posters are distributed. Female teachers, police officers and people coming to CATOM (multi purpose community center) are educated about cancer screening, cervix and breast cancer, information regarding KETEM in Mardin as community education. Educations were given using Powerpoint presentations and breast examination model. After educations pamphlets are distributed. In order to inform people about KETEM, self breast examination and cancer screening 3 kinds of pamphlets and 2 kinds of posters are prepared and distributed. Posters about KETEM are presented at 7 different locations on billboards. Home visits are performed in the chosen Evren district and people are informed and invited to KETEM. Pamphlets are distributed. Results Health personnel and people are informed about the most prevalent female cancers breast and cervical cancer. In Evren district 80% of the women are screened for cervical cancer and none had any problems.

### **P-331 A SOCIETY BASED CERVICAL CANCER SCREENING MODEL**

S. Aydin\*, S. Durak\*, H. Karakilinc\*\*

\*KETEM-ANTALYA

\*\*Saglik Mudurlugu-ANTALYA

AIM: To reduce cervical cancer incidence and mortality speed in the selected area by providing for early diagnosis through pap smear testing. MATERIAL-METHOD: -Health Personnel Education -Public Education -Determination of Target Population -The women population ages 25-64 to be screened in the vicinity of the specified medical center is 3760. -Home Visits. -First Step Examination and smear testing FINDINGS-RESULTS: Smear testing participation rate throughout the research is 77,1%(2901). In consideration of family history of cancer, it was detected that 81(2.79 %) women have gynecological cancer, 136(%4.68) women have breast cancer, and 452(%15.58) have other organs cancer in their families. 100 % of the smear samples taken are appropriate for cytological assessment. In consequence of the assessment, 2871(%98,97) normal, and 30(%1.03) atypical cellular change was discerned. 5(%16.66) of the atypical cellular changes were found only atypical, 14(%46.66) were found ASCUS, 9(%30.0) were found LSIL, and 2(%6.66) were found HSIL. Two people with HSIL were directed to the second step health organization for conization, and the other cases for treatment. Screening methods and results will be demonstrated in detail on the poster. SUGGESTIONS: Pap smear testing is not convenient to do in hospitals. It may be done in the first step health centers if there is an appropriate structure, and a useful consoling system. First and second step health organizations should cooperate for the cytological detections of the smears. The results were not compared and contrasted with another study since there has not been a similar screening in Turkey before.

### **P-332 THE KNOWLEDGE ATTITUDE AND BEHAVIOURS OF FEMALE HEALTH PROFESSIONALS REGARDING THE BREAST CANCER IN CORUM, TURKEY**

Y. Yelen Akpınar\*, I. Gun\*\*, F. Cetinkaya\*\*

\*Corum Saglik Mudurlugu

\*\*Erciyes Universitesi

The awareness of health professionals about breast cancer prevention has a vital importance, since health professionals beliefs and behaviors may have an impact on other women. The aim of this study is to investigate the knowledge, attitudes on risk factors of the breast cancer as well as screening programs such as breast self-examination (BSE), clinical breast examination and mammography among different groups of female health professionals. In this cross-sectional study a total of 485 people (including female physicians n=67, nurses n=236 and midwives n=141) in various health centers located in Corum Province, Turkey. They were interviewed using a self-administered questionnaire (overall response rate was 80.6%). The mean age was 34.2±5.1 in female physicians, 32.5±6.6 in nurses and 33.5±6.0 in midwives, and most were married (81.0%). Approximately 27.1 % of the respondents believed that 'Like every other woman I am at risk of breast cancer. Majority of the group (98.4 %) was believed that BSE was a beneficial method to identify to early detection of breast cancer. Although 81.3 % of the group reporting performed BSE, only 23.3 % reported doing so on a regular basis (performed monthly or once per menstrual cycle). The rate of doing BSE regularly was higher in physicians (31.3 %) than nurses (20.4 %) and midwives (24.1 %). The most common reason for not doing BSE was the belief that it was not necessary (45.8 %). Of the entire group, only 10.2 % of them had gone for a screening mammogram and 24.8 % had gone for clinical breast examination. The rate of application to clinical breast examination is the highest in physicians. Health professionals are a direct source of medical information to the public. The use of BSE and mammography were found lower than expected when considering the fact that participants were health care professionals.

### **P-333 EVALUATION OF KNOWLEDGE AND BEHAVIOUR OF WOMEN ABOUT CANCER VISITING KETEM**

D. Kafadar\*, M. Aral\*\*, H. Kasikci\*, F. Ak Yildiz\*, Z. Cukurova\*\*, A. Dokucu\*

\*Health Directorate of Istanbul

\*\*KETEM, Bakirkoy Dr. Sadi Konuk Training and Research Hospital

Introduction: Cancer Control Unit of Health Directorate of Istanbul Province works in cooperation with Cancer Early Diagnosis and Screening Centers (KETEM) in order to provide quality in cancer control. Performing population based screening programs, public education and raising awareness regarding early diagnosis and various cancer issues are among KETEM's activities. Objective: This

study aimed to evaluate knowledge, awareness and behaviour of women about cancer who visited KETEM integrated to Bakirkoy Dr.Sadi Konuk Training and Research Hospital . Methods: A questionnaire containing ten multiple choice questions prepared by the Cancer Control Unit was applied to voluntary participants among women who visited KETEM in December 2009. For most questions more than one answer was allowed to be chosen to ensure that the participants gave the answers most suitable to their knowledge and behaviour. Results: 409 women between ages 17 and 82 participated. 67% chose lung cancer as the most common cancer in Turkey. 86.5% chose breast cancer as the most common cancer of women. For the most common cancer in men 69.4% answered prostate cancer and only 25.6% chose lung cancer. With 28% smoking was chosen the most for the causes of cancer, then exposure to harmful substances in the workplace followed by 16%. Only 10% chose obesity. 20.9 % stayed away from smoking, 18.9% were having regular check-ups, 17.11% tried to keep a healthy diet but only 11.5% were doing regular physical activity as life-style interventions to protect themselves from cancer. For the periodical examinations women should have at certain ages mammography and For the periodical examinations women should have at certain ages mammography and breast self-examination were chosen the most; 30.6% and 20.2% respectively. The 30.8% of participants obtained information about breast cancer mostly from visual media and 17.4% from other forms of media. Health professionals followed by 17.1%. Conclusion: The most common cancer in men in Turkey is "Lung Cancer" with annual incidence 66.7/100.000. The reason participants perceived prostate cancer (annual incidence 27.5/100.000) as the most common may be due to the frequent commercial advertorials present in media. Participants seemed to be more aware of smoking and cancer relationship since a very intense campaign about smoking was conducted since 2009. Since they were already in KETEM, participants were aware of the periodic breast examinations and breast cancer being the most frequent cancer in women in Turkey (annual incidence 35.8/100.000). Unfortunately they were less aware of the hazards of obesity and inadequate physical activity. A total of 48% of the participants chose media as the resource for obtaining information about breast cancer. This result is not a surprise as media is the most common means of mass communication. Overall percentages of knowledge about cancer issues are lower than they are expected. Building and raising awareness about health issues and informing people accurately about cancer may be achieved by more effective use of media. Key Words: Questionnaire, breast cancer, awareness

### **P-334 EVALUATION OF PROFILES AND PROCEDURES OF BREAST CLINICS FOR OUTPATIENTS**

D. Kafadar, H. Kasikci, F. Ak Yildiz, A. Dokucu  
Health Directorate of Istanbul

Introduction: "Breast Diseases Outpatient Clinics" were established in 2006 in 12 Training and Research Hospitals in Istanbul to provide second line healthcare for cases that are detected by breast screening in primary care. Breast clinic for outpatients must have well-lighted, well-warmed, well equipped two adjacent rooms. In each clinic a general surgeon, a nurse and a secretary should work. An examination card should be filled out for every patient and be archived for the following visits. Each patient should be informed about the procedures for diagnosis and treatment. An informed consent should be obtained. A "Malign Breast Diseases Follow-Up Card" must also be filled out for those cases in each visit. Services include evaluation of breast abnormalities, diagnosis, clinical follow-up, keeping records of cancers, informing about prevention and early detection of breast cancer and training for "Breast Self-Examination". A radiologist, a pathologist and a general surgeon work in a multidisciplinary approach to meet the needs of each patient. Objective: The aim of the study was to evaluate the yearly procedures of outpatient clinics concerning breast cancers since 2006 and focus on 2009. Method: A preprepared form with descriptive questions about the activities and profiles of the clinics was filled out by each outpatient clinic. Results: In 22 months time from March 2006 until the end of 2007, total number of patients was 123234. In this period 2.67 % of patients had suspected breast lesions and in 1.49 % of all patients breast cancer surgery was performed. In the year 2008, 86888 patients were admitted and 5.62% had suspected breast lesions. 1.42 % of patients were operated for cancer. For 2009, total number of patients was 85901 and 10.22 % had suspected lesions and 1.36 % were operated. The ranges of ages and percentages of patients were as follows in 2009: 15-39 years 34.6 %; 40-49 years 36.7 %; 50-69 years 26.2% and only 2.3 % 70 and over. Patients between ages 40-49 had the highest referral. The target population for screening for breast cancer; women between ages 50-69 also visited the clinics frequently. Conclusion: The increase in suspected breast lesions may be explained by technical developments as digital mammographies are more sensitive even to benign lesions. Patients should have clinical examination and screening at certain ages in certain primary care settings integrated to hospitals. It is important to complete a comprehensive evaluation after a change in breast is detected to ensure early diagnosis of cancer. There should be a coordinated patient flow between primary healthcare services and advanced outpatient clinics in order to provide procedures intended for early diagnosis and management of breast cancer more efficiently. Key words: Breast cancer, Outpatient clinic, screening.

### **P-335 RESULTS OF BREAST CANCER SCREENING AT CANCER EARLY DIAGNOSIS, SCREENING AND EDUCATION CENTER (KETEM), SAMSUN**

E. Ozkaya\*, E. Akyazici\*\*, B. Mutaf\*, F. Karaman\*, G. Soylu\*, G. Bulut\*, T. Balik\*, M. Cesuroglu\*, H. Bas\*\*, A. Polat\*\*, H. Ozkaya\*\*

\*Samsun KETEM

\*\*Samsun Mehmet Aydin Education and Research Hospital

Introduction: The breast cancer is the most common malignant tumor among women. When abnormal tissue or cancer is found earlier, it may be easier to treat. We aimed to present of our screening results and detect of incidence of asymptomatic breast cancer. Material and Methods: Total 4115 women were scanned with digital mamography for breast cancer between June 2008-December 2009 in Samsun KETEM. We compared the characteristics of women who diagnosed by scanning by using chi-square tests. Results: Of these 4115 women, 2925 (71.1%) were screened by a population based screening (PBS) and remaining 1190 (28.9%) were screened by a opportunisticly (OS) methodology. Seven were diagnosed as breast cancer during scanning. The incidence of breast cancer was 0.17%. The age groups, education status and the age at first pregnancy were significantly different than other normal women ( $p < 0.05$ ). Five of seven patients were diagnosed with breast cancer in OS groups. Discussion: In recent studies reported rate of asymptomatic breast cancer detection were between 0.06-0.15%. The risk factors for breast cancer are age, menstrual period, delayed childbirth, hormone replacement therapy, not breast feeding, alcohol/smoking, family cancer history. The age groups, education status and the age of first pregnancy of patients were significantly different than other normal women. Conclusion: The asymptomatic patients with breast cancer are very high in population like in our study (0.17%). For the early detection and effective treatment, the breast cancer screening should be done more effectively and widely.

### **P-336 OPPORTUNISTIC AND POPULATION BASED SCREENED WOMEN FOR CERVICAL CANCER: ARE THERE ANY DIFFERENCES?**

E. Ozkaya\*, E. Akyazici\*\*, B. Mutaf\*, F. Karaman\*, G. Soylu\*, G. Bulut\*, T. Balik\*, M. Cesuroglu\*, H. Bas\*\*, A. Polat\*\*, H. Ozkaya\*\*

\*Samsun KETEM

\*\*Samsun Mehmet Aydin Education and Research Hospital

Objective: To evaluate any possible difference between women who were screened via a population based screening (PBS) by invitation and the women who were screened opportunistically (OS). Method: A total of 4807 women who were screened for cervical cancer at Samsun Cancer Early Diagnosis, Screening and Education Center (KETEM) during June 2008- December 2009 were analysed for their clinico-pathologic characteristics. All patients with infectious cytologies were extracted from the study. Results: Of these 4807 women, 3121 (64.9%) were screened by a PBS and remaining 1686 (35.1%) were screened by a OS methodology. 267(5.5%) of the patients were found to have cytologic abnormality. The rate of dysplasia was not significantly different among both groups (5.9% in PBS vs. 4.8% in OS, P=0.9). There was also no significant difference between the two groups with respect to rate of high grade lesions (0.1% in PBS and 0.1% in OS, P=0.6). PBS group was significantly elder than OS group (>50 year old was 74.2% in PBS vs. 53.2% in OS). OS group was also significantly higher level educated compared to PBS. First sexual activity age was significantly lower in OS group (p=0.033). Conclusion: Younger and better educated population may admit to screening without any invitation. PBS seems to be more effective in elderly and low level educated population. There is no significant differences among the rate and level of cellular dysplasia among both groups. However, larger series with age matched groups are needed for a definite conclusion.

### **P-337 EVALUATION OF 2009 YEAR'S MAMMOGRAPHY SCREENING AT LOCAL HEALTH AUTHORITY KETEM CENTRE IN KAHRAMANMARAS**

A. Ozer\*, E. Bankaoglu\*\*, M. Belpinar\*\*\*, H. Ekerbicer\*, M. Hudayioğlu\*\*, M. Ozdemir\*\*

\*Kahramanmaraş Sutcuimam University, Medical Faculty, Department of Public Health, Kahramanmaraş, Turkey.

\*\*Local Health Authority, Kahramanmaraş, Turkey.

\*\*\*Local Health Authority KETEM Centre, Kahramanmaraş, Turkey.

Introduction and objectives: To evaluate the mammography screening records, which were made as community based, in 2009 by KETEM (Cancer Early Diagnosis Screening and Training Centre) in Kahramanmaraş city. Methods: Records of 3212 people whose community based mammography screenings were made by the KETEM Centre in Kahramanmaraş centre and its two districts (Turkoglu and Narli) in 2009 were examined retrospectively. While evaluating mammography results, BI-RADS classification was used. Results: The age average of the study group was 53.9±8.1. 37.9 % of them were living in the city centre, 62.1 % in districts, and 98.9 % were housewives. In 8.2 % of the study group was breast cancer and in the family of 2.9 % was gynaecological cancer story. When mammography results were examined, it was found that 14.2 % were the phase 0 (there is need for additional inspection), 74.8 % the phase 1 (normal negative mammography), 10.7 % the phase 2 (benign findings), 0.3 % the phase 3 (powerful possibility of benign, 2.6 % malignity risk, necessitates monitoring) and 0.1 % the phase 4 (malignity possibility is high, 25-40 % malign, necessitates biopsy). Conclusion: In conclusion, of 3212 people whose screenings were made, it was found that 2 people had high malignity possibility and 10 people had powerful possibility of benign.

### **P-338 DEMOGRAPHICAL PROPERTIES OF CANCER PATIENTS WHOM APPLIED TO YENIKENT STATE HOSPITAL CHEMOTHERAPY UNIT**

H. Katioz\*, F. Onusuz\*\*, Z. Zengin\*\*, E. Akar\*\*\*, S. Gursesl\*\*, H. Bektas\*\*, I. Yavla\*

\*Sakarya Yenikent State Hospital

\*\*Sakarya Health Authority

\*\*\*Sakarya Cancer Early Diagnosis Screening and Education Center

Introduction and objective: To determine demographical properties and cancer types of the patients who applied to chemotherapy unit during 2009. Methods: The records of 101 cancer patients who applied to chemotherapy unit have been kept by being followed in treatment process. The list of demographical properties and cancer types of the patients has been made. Results: %60.3 (n=61) of the patients who applied to chemotherapy unit were men and average of age was 58.0. %26.7 (n=27) of the cancer patients were breast cancer, %14.8 (n=15) were colon cancer, %13.8 (n=14) were lung cancer, %0.09 (n=10) were prostate cancer, %0.05 (n=6) hodgkin lymphoma, %0.04 (n=5) were stomach cancer, %0.03 (n=4) were pancreatic cancer, %0.03 were (n=4) bladder cancer, %0.03 (n=4) were over cancer, %0.02 were (n=3) leukemia, %0.01 were (n=2) multipl myelom, %0.01 were (n=2) sarcoma, , %0.01 were (n=2) multipl skleroz patients. Conclusion: Breast, clon and lung cancers have been mostly determined in cancer patients in our study. This result is similar to cancer cases in our country. The subject will be understood more clearly if the researches are done aimed at risk factors related to cancer types determined in our city.

### **P-339 DISCUSSION OF THE RESULTS OF PAP SMEAR SURVEY AMONG THE WORKERS OF ADANA BROTHEL**

O. Kahraman\*, S. Isguzar\*, G. Donmez\*\*, E. Saygili Yilmaz\*\*, N. Bingol\*, N. Kocabiyik\*, Z. Guler\*

\*adana ketem

\*\*adana numune hastanesi

Abstract: Cervix cancer is one of the most encountered cancers among women worldwide after breast cancer and every year 437,000 patients are being identified. 75% of the patients are coming from under developed countries. The cervical cancer screening with pap smear test is an efficient and low-cost method of identifying and preventing the cancer. Furthermore, the identification of the pre-malignant (precancerous) lesions with this method and the treatment lead to the decrease of the number of cancerous patients and patient mortality. Multiple sexual partners (or sexual partners who have had multiple partners) is one of the risk factors for cervix ca. In this regard, the workers of Adana brothel are studied in the years 2006, 2007 & 2009 by PAP smear test. In the first group of the studies, i.e. in 2006, 99 patients were observed. Similarly, in the year 2007, 89 patients (second group) & in the year 2009, 95 patients (third group) were encountered. Thus a total of 283 patients were observed. Due to the relocation of the workers, 35 patients were identified in all the three series; 42 in the two series & 94 in only one series with a total of 171. The survey was accomplished

with a team of one medical doctor and one nurse from KETEM in Adana Skin & Veneral Diseases Dispensary. The smears (samples) were examined in Pathology Lab within Adana Numune Hospital. The results obtained from the studies were sent to the patients and some of the patients who have abnormal results were invited back to KETEM for further research & analysis.

#### **P-340 A DERMATOSCOPY SCREENING STUDY' FROM KETEM OF ADANA**

N. Kocabiyik\*, A. Guzelsoy\*\*, N. Bingol\*, O. Kahraman\*, Z. Guler\*, S. Isguzar\*

\*adana ketem

\*\*adana devlet hastanesi

This study was done with patients who were admitted to our center with the purpose of screening between the years 2007-2009. Among these patients, , retrospective review was conducted from those dermatoscopy examination had done. During this period a total of 448 patients had dermatoscopy review. Dermatology consultation was asked for 268 patients according to clinical examination and measurements of dermatoscopy results. Consultation among the cases evaluated with; • 14 patients were considered as malignant. 2 of them former BCC, 1 of them former SCC has been followed closely with suspected recurrent lesions. 2 cases with the diagnosis BCC were referred for cryotherapy. Remaining 9 cases with the diagnosis of the BCC has been proposed excisional biopsy. 7 of these patients were developed, and 6 cases of excision of the diagnosis was confirmed. 2 cases which does not have an excision were followed closely. • 30 cases follow-up for developing; the nevus growth, bleeding, itching and discoloration of the criteria taken into consideration, the excision or follow-up was proposed dermatoscopy. In 7 cases excision developed and as a result, 2 seborrheic keratosis, 1 blue nevus, 1 intradermal nevus, 1 melanocytic nevus, 1 Verrucous nevus, 1 compound nevus were correctly diagnosed. • In addition, 11 patients with the diagnosis of seborrheic keratosis was treated with cryotherapy. • As a result of these studies; nevus follow-up, clinical correlation with the dermatoscopy review, case tracking and given positive results in terms of patient satisfaction were observed.

#### **P-341 KARABUK KETEM BREAST AND CERVICAL CANCER EXAMINATION ACTIVITIES BETWEEN 2008-2010**

G. Kavanar\*, H. Sayim\*\*, S. Aydin\*\*\*, N. Temelkaya\*\*\*

\*CHIEF DOCTOR

\*\*MED. TEC.

\*\*\*NURSE

PURPOSE :To evaluate clinical breast examination, mammography, breast USG and smear results of the patients who apply to Karabuk KETEM for breast and servical(cervix uteri) cancer between the dates 02.01.2008-01.01.2010 MATERIAL METHOD :This study is prepared by examining the file records of the patients who directly applied to the center between the dates 02.01.2008-01.01.2010(Opportunist screening) FINDINGS :In 2008, 6649 applications have been made to KETEM Breast Polyclinic; 2588 mammographies and 1371 breast USG are taken to follow, suspected Breast Ca 125 and 5 patients are diagnosed with breast cancer. In 2009, 6123 applications have been made to KETEM Breast Polyclinic; 2389 mammographies and 2330 breast USG are taken to follow, suspected Breast Ca 107 and 3 patients are diagnosed with breast cancer In 2008, 3509 applications have been made to the cancer as for cervical cancer screening;35 of these were diagnosed with ASCUS, 7 of these were diagnosed with L-SIL and follow-ups and this treatments have been carried out. In 2009, 3790applications have been made to the center as for cervical cancer screening; 88 of these were diagnosed with ASCUS,4 of these were diagnosed with L-SIL and the following-ups and treatments have been carried out. RESULT :It is proved that KETEM has an important role to diagnose the cases for breast and cervical cancer screening program in an early stages and to eliminate the problems caused in advenced stages-from now on,our services will continue to serve population-based screening activities by organizing trainings aiming to raise awaranes about cancer and screanly programmes.

#### **P-342 DATA FOR THE CANCER CASES THAT OCCURED OVER THE LAST 10 YEARS IN THE CITY OF SIRNAK**

C. Cagdas

Sirnak Devlet Hastanesi KETEM

OBJECTIVE : We tried to analyze and categorize the encountered cancer types in Sirnak due to age, sex and percentage in addition to understand which cancer type has the priority for the early diagnose with a retrospective study. MATERIAL AND THE METHODOLOGY : The cancer data in the management of health office and KETEM (Cancer Early Diagnosis, Screening and Education Center) are retrospectively analyzed. Cancer types are compared to each other according to age, sex and the frequency of the specific cancer types seen in Turkey. Spearmann correlation analysis is used as a statistical method. RESULTS : By comparing the results of Turkey with the results of Sirnak we detected that the frequency of the first three common cancer types are breast, skin, and thyroid cancer and they are adequate for comparison. For example, prostate cancer is the second common cancer type among the male population of Turkey, which is not witnessed among the male population in Sirnak by the data of the archives. Esophageal cancer is not listed in the first five frequent cancer types in Turkey while it appears as the fourth common cancer type in Sirnak. By analyzing the cancer cases from 2000 to 2009, we detected that skin and thyroid cancers are more frequent among the female population and lung cancer is the most frequent cancer type among the male population of Sirnak which is corresponding to the results of the cancer type frequencies of Turkey's male population. By analyzing the mortality rate from 2000 to 2009 in Sirnak , we saw that there is not an appropriate result, because of the lack of data collecting and statistic work. However, there is a significant result which shows us that the mortality rate is rising rapidly over the last decade. CONCLUSION : The cancer types which the KETEM of Sirnak should prioritize to detect and make the population conscious about, are breast, skin, prostate and colorectal cancers.

#### **P-343 STUDIES TO RAISE THE AWERENESS IN CANCER BETWEEN YEARS 2008-2009 IN KARABUK KETEM**

G. Kaynar\*, H. Unal\*\*, S. Karaoz\*\*, G. Karahuseyinoglu\*\*\*

\*CHIEF DOCTOR

\*\*NURSE

\*\*\*TRANSLATOR

PURPOSE: To evaluate the awareness trainings such as cancer, cancer symptoms, protection paths, Self-Examination of the Breast in order to increase the awareness for cancer between the years 2008-2009 by Karabuk KETEM. MATERIAL and METHOD: This study is prepared by using the documents and images of public education trainings organized by KETEM staff, service trainings, conferences, panels, TV and radio programs, between the dates 02.01.2008 and 31.12.2009. FINDINGS: Until today, every patient is examined at our center have been trained for Self-Examination of the Breast This shows that 1200 women have been trained. Moreover 10.000 people have been trained by organizing 16 conferences, 1 panel, 35 public educations and 31 service trainings about cancer, cancer symptoms, ways to protect from cancer, early diagnosis, screening issues, etc. in two years time. To inform the public that effective weapon of our age the media is used. 6 programs are made in local television both in promoting KETEM and about cancer, symptoms, prevention, early diagnosis and screening issues. For two years, 8 programs were made in local radio stations in order to reach the public. RESULT : We have reached a broad public by organizing 92 activities in Karabuk and around in two years. We tried to inform the women by making several trainings, conferences and media programs in order to increase the awareness. When the application forms are examined, it is proved that the studies have made women conscious about the subject who applied to KETEM.

#### **P-344 EVALUATION OF MAMMOGRAPHY AND PAP SMEAR RECORDS IN BATMAN STATE HOSPITAL KETEM IN THE YEAR OF 2009**

S. Bulut\*, L. Tanriseven\*\*, A. Kaya\*\*, G. Demir\*\*, A. Atabey Kaya\*\*, G. Koroglu\*\*, S. Aydin\*\*

\*Batman ACSAP Merkezi

\*\*Batman KETEM

ABSTRACT: Health Ministry's Cancer Early Diagnosis, Screening and Training Centers (KETEM), give service to the women for screening of breast cancer and cervical cancer. Screening tools for these preventable diseases are mammography and pap smear tests. The objective of this article is to evaluate the eight months' performance of the mammography and pap smear records of Batman State Hospital Cancer Early Diagnosis Center in 2009. BACKGROUND: Breast Cancer and Cervical Cancer are the most common cancers of the women. Mammography for the breast cancer and the Pap smear for the cervical cancer are the effective screening tools for these preventable diseases. Health Ministry's Cancer Early Diagnosis, Screening and Training Centers (KETEM), give service to the women to reach these effective screening programs. OBJECTIVE: To evaluate the eight months' performance of the mammography and pap smear records of Batman State Hospital Cancer Early Diagnosis Center in 2009. METHOD: A descriptive and cross-sectional study was performed in order to get a knowledge about the practices of the Health Ministry's Cancer Early Diagnosis, Screening and Training Center in Batman during the May and December 2009. Electronic and manual medical records of the patients entered to the center, were used as data collection instruments. Our KETEM Center, implements studies in two groups, to minimise the incidence of the breast and cervical cancers, which are the important social problems of our population. The first group is, mammography applying to the community based the ages of 50-69 women and the second one is pap smear screening to the ages of 35-40 women. As a training center, there are visual and practical awareness and information trainees about breast cancer are being given. RESULTS: Results showed that, 28 % of the women were under the age of 40; 58% of the women were 40 and 50 years old; 14% of the women were between 50-69 ages had a clinical breast examination. 2,3% of the women were under the age of 30; 97% of the women were between the ages of 30 to 65 and 0.7% of the women were upper of the 69 years old had pap smear screening. CONCLUSION: Although eight month is a short time, our KETEM Center has performed the screening and educational programs about the preventable diseases such as breast and cervical cancer. Many women still do not understand the benefits of mammograms and pap smears. Education given by the KETEM Center may help increase the rates of early screening.

#### **P-345 CERVICAL SMEAR SCREENING IN A TARGET POPULATION**

A. Karabulut\*, T. Alan\*\*, M. Ekiz\*\*, S. Bayur\*\*, A. Iritas\*\*, O. Sevket\*, Z. Kesen\*\*\*

\*Denizli State Hospital, Department of Obstetrics and Gynecology

\*\*Denizli State Hospital, Cancer Early Diagnosis Center

\*\*\*Denizli State Hospital Department of Pathology

Introduction and objectives: Cervical cancer ranks ninth among female cancers in our country. Although early detection and screening are possible due to easy accessibility of cervix for inspection and sampling, majority of cases are discovered at an advanced stage. In this study we aimed to increase awareness of population for the cervical cancer screening program and evaluate cervical cancer screening results of women in a target population. Methods: Two family physicians out of 142 working in central Denizli were selected with simple random sampling method. All women aging 35 to 65 years were invited to early cancer screening center by phone call. Women were informed of cervical cancer screening and cervical smears were collected. Results: Three-hundred-thirty-eight (57.9%) women out of 584 accepted to participate in the program. The mean age was 46±7.9 (range, 35-65 years). Transformation zone cells were clearly identified in 335 (99.1 %) of smears. One case of ASCUS (atypical squamous cells of undetermined significance) (0.3%) was detected. Bacterial vaginosis was detected in 14 (4.1%), candidiasis in 4 (1.2%), and actinomyces in 2 (0.6%) of Pap smears. Conclusion: Early detection of cervical abnormalities is important to reduce the incidence of cervical cancer. Pap smear is an important test for detection of cytological abnormalities, but it also gives information for the infectious processes. Since there is no national screening program, screening of target populations from different regions of our country may give information about distribution of cervical pathologies.

#### **P-346 CERVICAL CANCER SCREENING OF 35 TO 40-YEAR-OLD WOMEN, INITIATED WITHIN THE CENTRAL AREA OF RESPONSIBILITY OF A FAMILY HEALTH CENTRE IN BURDUR**

B. Gencer\*, A. Kilinc\*\*, G. Cekirge\*, H. Sanli\*, A. Demirok\*, S. Turel\*

\*Burdur Public Hospital KETEM

\*\*Burdur City Health Department

Cervical cancer screening of 35 to 40-year-old women who are registered to 3 family doctors employed in 2 Numbered Family Health

Center in Burdur City Centre was initiated in accordance with the national standards, by Burdur City Health Department and Burdur Public Hospital KETEM. 428 35 to 40-year-old women who are registered to family doctors were included in the investigation. These women were invited by family doctors to KETEM embodied in Burdur Public Hospital. As a result of insufficient number of applications, KETEM personnel performed home visits between November and December 2009 and thus the number of applications was increased. Firstly, a survey was applied to the women who accepted to participate in the investigation and then cervical smears were scraped from the appropriate women. Out of 428 women, 86 women who were unmarried, pregnant, puerperant, dead or moved to another region and 36 women who didn't accept screening were excluded. 164 invited women never came to KETEM. Survey was applied to 142 women and smears were scraped from 130 of them. After pathological examination, 125 of them were considered normal, 2 of them were considered as ASCUS and 3 of them were considered as infection. Smear couldn't be scraped from 12 women due to intense infection. It was understood that invitations made by the family doctors weren't effective but face to face discussions made by KETEM personnel were very effective in persuading the women. In addition, it was observed that home visits increased the number of applications to KETEM.

### **P-347 THE EFFICACY OF BREAST CANCER AWARENESS WORKSHOPS**

M. Karakahya, N. Aksoy, Y. Depe

Ordu KETEM

Introduction and objectives: Breast cancer awareness (BCA) and organized population-based screening programs (OPS) have resulted in early diagnosis and reduction in mortality. National screening programs in Turkey are performed by KETEM (Cancer Early Detection and Screening Center). In addition to OPS, opportunistic screenings (OS) and BCA workshops have also been performed in these centers. The aim of this study is to evaluate the efficacy of BCA workshop and to determine the characteristics of OS in our center. Methods: Totally 4218 women (OPS group and OS group; 1941 and 2277 respectively) participated in BCA workshops in our local area, have been included in this retrospective study. Regarding the related literature, pre and post workshop questionnaires were prepared to assess knowledge of cancer symptoms, risk factors, breast self-examination and screening tests. All the data are stored using Windows 15.0 SPSS. Differences between the groups are calculated using percentage estimation and Chi-square tests. Results: The improvement of the BCA level after workshop was significantly high in both groups compared to the BCA level before workshop. The mean age in OS group was significantly lower than the OPS group and the level of cultural status was significantly higher ( $p < 0.05$ ). Conclusion: Our findings suggest that the awareness level of breast cancer among women would be improved by even a short time interactive training course about breast cancer at KETEM. Standard, reliable and an easily-performed test which allows comparative studies with the other cancer centers, is needed in order to measure the level of BCA of women.

### **P-348 COMMUNITY-BASED BREAST CANCER SCREENING AT CANAKKALE PROVINCE CENTRAL HEALTH CENTER NO.2**

H. Kaplan\*, S. Tas\*, M. Kaplan\*\*, A. Ozan\*\*\*, U. Kahyaoglu\*\*\*\*

\*Canakkale State Hospital Cancer Early Diagnosis Screening And Training Center

\*\*Canakkale State Hospital Radiology Clinic

\*\*\*Canakkale State Hospital General Surgery Clinic

\*\*\*\*Canakkale State Health Directorate Cancer Control Unit

Introduction and objectives: Community-based breast screening decreases mortality by 30%. The aim of this study was to teach breast self-examination to women aged 50-69 living in Canakkale city center and also to perform breast cancer screening. Methods: The target in this sectional study was 1913 women aged 50-69 in the service area of Canakkale Province Central Health Center No. 2. The screening was started on March 2009 according to the Breast Cancer National Screening Standards. Breast cancer screening invitations and medical and follow-up flowcharts were prepared and distributed to health center midwives. Midwives reached the women and distributed the screening brochures. KETEM (Cancer Early Diagnosis Screening and Training Centers) nurses invited women for two-way mammography. The mammographs were evaluated by two independent radiologists according to BI-RADS criteria. Women with suspicious findings were sent for a general surgery evaluation. Results: Two-way mammography was performed on 1006 women and 127 (12.6%) of these women were required general surgery evaluation as suspicious findings were detected. A biopsy was suggested to 19 of these women and performed on 15. Four women refused the biopsy. Two of the women had malignancy (0.2%), 1 atypical ductal hyperplasia (0.1%), 11 fibrocystic disease (1.1%) and 1 fibroadenoma (0.1%). Conclusions: The screening performed by KETEM found a breast cancer prevalence of 0.2%. This is an objective evidence of the benefits regarding early diagnosis of the screening that is still continuing. We also taught women breast self-examination and increased awareness about the disorder.

### **P-349 YEAR 2009 CANCER WEEK ACTIVITIES**

G. Gursu

Canakkale State Health Training Branch Director

Introduction and Aims: Arranging training regarding the acceptance of healthy living habits and increasing public awareness of cancer. Method: We started our activities after determining the activities to be held within the scope of the year 2009 Cancer Control program. We designed handbags, key holders, ads and brochures with cancer-related slogans and gave these away at stands that were present at all educational meetings. Education regarding cancer, smoking, nutrition and breast cancer was provided to all province high school students. A short essay contest on "Cancer" was held for the secondary school students in our province. A Press Bulletin on cancer was published during April 1-7 Cancer Week and placed on the Web page of our Province Health Directorate. Ads and posters were placed on all Healthcare Facilities and mobile ads placed on Municipality Public Buses. A "Public Education Evaluation Survey" was prepared for 500 subjects during Cancer Week and administered at Hospital Outpatient Clinics. Result: We were able to reach a total of 1035 healthcare staff during the In-service Trainings on Cancer in addition to 20260 high-school students and 39717 persons with Public Education Sessions during the year. We reached 10552 women with the education sessions and follow-ups we provided since 2005 to women aged 15-49 years and over 50 that live in our province and suspicious cases were directed to the Cancer Early Diagnosis and Training Center. Suggestions: We suggest that educational activities continue at an increased pace.



### **P-350 IN 2009 BY THE TEKIRDAG KETEM**

H. Becerir

KETEM

Introduction: To emphasize the importance of scanning society-based and also opportunist KETEM for the purpose of early diagnosis. Method: During the 2009, patients applied for KETEM polyclinics and patients applied for scanning of the society-based breast cancer in region of number 11 Public Health Center were retrospectively analyzed. Data were analyzed with SPSS 10.00 program. Results: We recorded 1768 women applied for our center by computer. We studied 965 mammography images, 245 ultrasound images and 33 nipple smears. Of women, 13 who have suspicion of breast cancer were directed to comprehensive health institution. Breast cancer was confirmed in all patients with suspicion of breast cancer and all of them were operated. Cervical smear was performed in 1216 women: Three women who have ASCUS, three women who have LSIL and one woman who have HSIL were directed to comprehensive health institution. In 42.4 % of women who applied for polyclinics in region of number 11 Public Health Center, cervical smear was performed and in 50.3 % of women mammography was performed for the first time. Conclusion: We conclude that the society-based scanning programs performed by KETEM needs multidisciplinary study by public health centers and that especially cervical smear and mammography which is important for early diagnosis of cancer will become widespread in those institutions.

### **P-351 SOCIETY BASED BREAST CANCER SCREENING PROGRAMME IN AYDIN: INTERVAL EVALUATION REPORT**

T. Dursun\*, M. Bayram\*, A. Turkoglu\*\*, M. Cildag\*\*, O. Demirtas\*\*, M. Yigit\*\*, S. Karademir\*\*\*

\*Cancer Early Diagnosis Screening and Education Center, Aydin

\*\*Aydin City Hospital

\*\*\*Aydin Health Directory

ABSTRACT Introduction and objectives: Breast cancer is seen on the second frequency among all types of cancers. Early diagnosis in breast cancer whose survival for 5 years is %73 is very important for the purpose of secondary protection. Methods: 472 women were screened thoroughly in Aydin number 7 Health Association between 10/01/2009-01/29/2010. Research data was evaluated under computer surrounding and by using the SPSS 11,5 programme. Average standard declination was stated in definitional statistics. Mann Whitney and chi-square tests were used in analytical analysis. Results: The age average of 472women who have been screened 4,0. Their breast±is 57,7±5,2. These women's first pregnancy age average is 22,6 feeding period second value is 24 months. According to the mammography result, while %72,0(n=340)of these women were evaluated to be healthy,%0,4(n=2) of them were determined to have spicular opacity.USG was applied to %42,4(n=200) of these women and %1,0(n=2)were found to carry a malignant disease .Two women were applied aspiration biopsy and malignant disease was determined. By looking at the results of this story, breast cancer prevalence has been determined as %0,4 in our group.

### **P-352 ASSESSMENT OF COMMUNITY BASED AND OPPORTUNISTIC CANCER SCREENING OF ESKISEHIR KETEM IN 2009**

S. Tunc\*, N. Tasdemir\*, H. Yuksel\*, B. Kurnali\*\*, O. Arberk\*\*

\*Eskisehir KETEM

\*\*Eskisehir Provincial Health Directorate

In Eskisehir province, Cancer Early Diagnosis, Screening and Education Center (KETEM) has been established, to catch breast, cervix, prostate and colon cancer in early periods which are the most commonly seen cancer types, to reduce probable tissue and organ loss and educate public and improve consciousness by community based and opportunistic Screenings, since 30th December 2008. During the period between 1st January 2009 and 31 December 2009, 3368 female and 413 male those get appointment by their family doctors an admitted to KETEM, had been screened. 1058 patients, who had sent from Uluonder Family Health Center (FHC), got mammography screening and 89 cases among them got breast ultrasound screening. 5 of these had biopsy. Among these 1058 patients 1 patient had breast cancer diagnosis. Total number of admissions to the clinic for mammography was 1882. %56 (1058) of the total admissions were from Uluonder FHC. This showed the power of referrals by a doctor compared to volunteer admissions. In 2010 all of the Family Health Centers will begin to send their registered population to KETEM to cancer screening. The whole number of registered 50-69 years old women is approximately 70.000. By this project KETEM aims to screen %60-70 of these women for breast cancer in period of two years. As a result of these mammography and PSA assessment, 4 patients had been diagnosed as breast Cancer and 1 patient had been diagnosed as prostate cancer.

### **P-353 EARLY CANCER DIAGNOSIS, SCREENING AND EDUCATION CENTER RESEARCHES, MUS, 2009**

M. Kanduman, A. Unlu

Mus State Hospital Early Cancer Diagnosis, Screening and Education Center

Purpose: Results evolutions of Mus State Hospital Early Cancer Diagnosis, Screening and Education Center that made gynecological examinaion and pap smear for cervical cancer in 2009. Material Methodology: This presentation was prepared by examining file records of people that were admitted directly to our center between 01/01/2009 and 31/12/2009 examined the records of people file was prepared. Findings: In 2009, 281 applications were made to our clinic KETEM for cervical cancer screening. Gynecological examinaion of Each patient was made and pap-smear tests were made to convenient people. Totally pap-smear test was made to 281 people. According to test results, our 6 cases were rated as ASCUS and also our one case was rated as HGSIL. Results: 4 months later, the 6 cases that was reported as ASCUS, were report as normal after re test (pap smear), 1 case that was reported HGSIL was referred to university hospital and was cured.

### **P-354 DESCRIPTIVE FEATURES AND MAMMOGRAPHIC FINDINGS OF WOMEN AT CANCER EARLY DIAGNOSIS SCREENING AND TRAINING CENTER IN ZONGULDAK ATATURK STATE HOSPITAL**

S. Cakmak\*, F. Demir\*\*

\*Responsible Physician of KETEM

\*\*Zonguldak Provincial Health Directorate

Introduction and objectives: It is seen that in most countries breast cancer is an important cancer type which affects health of women. A descriptive study was carried out to determine the reproductive factors and mamographic findings of women who came to the Early Diagnosis Center in Zonguldak Ataturk State Hospital. Methods: The research population was comprised of 175 women who came to the Early Diagnosis Screening and Training Center (KETEM) between August 2009 and December 2009. Data were collected using a structured questionnaire form in face-to-face interviews. The Breast Imaging Reporting and Data System (BI-RADS) was used to classify mammogram results. In the analysis of the data, number and percentage calculations were used. Results: The mean age of the women participating in the research was  $55.18 \pm 6.69$  years. The majority (%90.9) of the women were housewives, married (%83.4), had a child (%93.7), did not have a family history of breast cancer (%89.6). The mean menarche age of women was  $13.78 \pm 1.35$ . The majority (%96.6) of women's age at first birth, less than 30 years. The vast majority (%92.8) of screening mammograms were classified as BI-RADS 1 and 2. 6.3% of mammograms were classified as BI-RADS category 3 or 4. A few (6.9%) of screening mammograms were required additional follow-up or biopsy. Conclusions: Education programs to inform early detection methods for breast cancer, should be offered to every women above age of 50 and should be invited for screening breast cancer to KETEM.

### **P-355 CERVICAL CANCER SCREENING PROGRAM RESULTS OF OSMANIYE CANCER EARLY DIAGNOSIS, SCREENING AND TRAINING CENTER**

A. Akinci, S. Dal, S. Coskun, M. Diler, G. Sarica

Osmaniye Cancer Early Diagnosis, Screening and Training Center

Introduction: The aim of this study is to evaluate cervicovaginal smear examination results of patient admission from the date of 15.12.2008 until the date of 15.12.2009 in Osmaniye Cancer Early Diagnosis, Screening and Training Center. Method: Firstly, gynecologic examination was performed to all sexually active women applying to our center for cervical cancer screening and who were at 20-69 years of age. Then, their Pap smear results were reported according to the Bethesda system. Then, the patients, who needed according their results were asked for gynecology consultation. The patients who needed further evaluation were referred to the tertiary health care center. Results: Pap smear was performed to all women applying to our center between the dates of 15.12.2008 and 15.12.2009. Pap smear test was performed to 581 patients of whom 32 had cervical precancerous lesions, The distributions of squamous cell abnormalities were as follows: the most common diagnosis was ASC-US (atypical squamous cells of undetermined significance) seen in 96.88% (31) of patients. HSIL (high grade squamous intraepithelial lesion) were seen in 3.12% (1) of the patients. The patient who had been diagnosed as HSIL was referred to tertiary care center and was operated for cervical cancer. Conclusion: It is possible to reach to early diagnoses in many women with the use of cervical cancer screening programs. The importance of widely distribution of KETEM's is proved by the screening of many women in our region within a relatively short period of time and obtaining favorable results.

### **P-356 CANCER CONTROL PROGRAMMES AND CANCER SCREENING**

F. Kazanci

Rize Province Health Directorate

In our province since January 5 in 2009 switched to family medicine with public self-examination training for family physicians have been transferred to. National cancer screening appropriate criteria standards of the people, Education and Early Diagnosis of Cancer Screening Center of family physicians by making an appointment whether the procedures referred to our center realization of scanning.

### **P-357 FIRST ASSESSMENT OF SOCIETY-BASED BREAST CANCER SCREENING PROGRAM IN SIVAS.**

M. Demirkol, S. Ulusu, I. Yilmaz, S. Kelkit

SIVAS KETEM

Objective: In the light of the literature, we aimed to evaluate the feasibility and possible effects of public based breast cancer screening programmes in Turkey. And to compare possible epidemiologic factors according to mammographic BIRADS scores and among patient with and without a cancer diagnosis. Material and Methods: One thousand three hundred eight-two asymptomatic women living in city of Sivas, were invited to breast cancer screening. All the patients were recorded to a cancer database, including the epidemiologic risk factors for the breast cancer. All patients had had undergone a two sided mammography and the images were evaluated by the BIRADS criterias. Results: Mean age of the patients was 57.11. Ten patients with a BIRADS score 4 were admitted to general surgery department for breast biopsy. Among these ten patients, five were found to carry a malignant disease. Comparison of the epidemiologic factors with respect to BIRADS score did not reveal a significant factors. A second comparison of the patients with respect to the presence or absence of breast cancer diagnosis revealed only the first pregnancy age to be significantly different among the groups. Conclusion: High BI-RADS scores are not related to epidemiologic risk factors. With this study, it is seen that public based breast cancer screening programmes are feasible also in our country.

### **P-358 EVALUATION OF CANCER CASES REPORTED TO CORUM HEALTH BOARD CANCER CONTROL UNIT**

Y. Yelen Akpinar, B. Yesilada Yemenici

corum saglik mudurlugu

**INTRODUCTION:** Cancer recording is the basis of Cancer Controlling Program and the studies of cancer controlling are the main leading motives for the continuation of cancer recording. The data collected are used for the benefit of the society in epidemiological studies. **PURPOSE :** One of the goals of Cancer Control Unit is to reveal statistics about Cancer frequency and lead the research of their impacts on the society. "One way to demonstrate the necessity of Cancer recording is to use data." Within this framework, the evaluation of data sent to Corum Health Board with "Cancer Recording Information Form", Analysis of the foundation of Cancer Control Unit and the impact of the decisions taken in advisory committee in statistics. **MATERIAL- METHOD:** This study was prepared after the examination of cases reported with "Cancer Recording Information Forms" between the years 2008- 2009. **FINDINGS:** 147 cases were reported in 2008 and 263 cases were reported in 2009 with Cancer Recording Forms. In the reportings in 2009 38% of the cases were women and 62 % were men. The most prevalent type of cancer is Lung Cancer (60%). The most common cancer type for men is Prostate Cancer (47%), and for women Breast Cancer (57%). Cancer is most encountered in the age group of 60–69 (37%) and in Housewives (55%) as regards the field of occupation. **CONCLUSION:** It was concluded that reportings considerably increased after Cancer Control Unit was founded and "Decisions of Advisory Committee" had an impact on this increase. Also it is considered that demanding reportings from Family doctors will affect the statistics and in this way more reliable data will be acquired.

### **P-359 THE EVALUATION OF CANCER CASES IN HATAY PROVINCE DECLARED AT 2009**

E. Nazlican\*, U. Ozaydin\*, N. Savas\*\*, S. Yilmaz\*, B. Kerkez\*

\*Hatay Il Saglik Mudurlugu

\*\*Mustafa Kemal Universitesi Tip Fakultesi Halk Sagligi AD.

Aim Cancer is one of the most important health problems for this century. Because of its prevalence and mortality, this disease is an important public health problem. Early diagnosis and treatment is important for the prognosis of this disorder. The aim of this study is to evaluate cancer cases in Hatay province declared at 2009. Method Totally, 610 cancer cases were declared at 2009 from Hatay's city center and districts. The form included personally demographic properties, cancer type, affected organ, cancer stage, the methodology for the diagnosis and treatment and familial cancer history. Frequency distribution and student t test were used for statistical analysis. Results The number of female patients and male patients was 334(54.8%) and 276(45.2%). The mean age for female patients and male patients was 56.8±17.4 years(min:1, max:88), 59.5±19.5 years(min:6, max:91), and totally it was 58.0±18.4 years(min:1,max:91). Investigating the education level of the patients, 233(38.2%) patients were graduated at school, 197(32.3%) patients had no education, 180(29.5%) patients had no information about their educational level on the form. There were 149(%24.4) skin, 102(%16.7) breast, 64(10.5%) colorectal, 49(8.0%) urine bladder, 36(5.9%) thyroid, 34(5.5%) lung, 33(5.4%) prostate, 31(5.0%) stomach, 18(2.9%) endometrial, 7(1.1%) testes, 87(14.6%) other organs cancer cases. The most common cancer type was breast cancer (100-29.9%) in females and skin (76-27.5%) in males. Conclusion The most common cancer type was breast cancer in all the declared patients. The most common cancer type was breast cancer in all the female patients. For the early diagnosis of breast cancer, studies including screening surveys should be done.

### **P-360 PREVELANCE AND DEMOGRAPHIC DISTRIBUTION OF ASCUS (+) OPPORTUNISTIC PAP SMEAR SCREENING RESULTS IN BURSA KETEM BETWEEN 2005 – 2009, BURSA**

F. Karazag\*, T. ENGINDENIZ\*\*, G. YILDIZ\*, Y. OZSOY\*, A. CINAR\*, A. TUNA\*, H. KABALAR\*\*\*, F. HARORLU\*\*\*\*, O. AKAN\*\*\*\*\*

\*Done Ocak Cancer Early Detection And Education Center

\*\*Education Branch Director, Bursa

\*\*\*AOS Oncology Hospital Bursa

\*\*\*\*AOS Oncology Hospital, Surgical Oncology Bursa

\*\*\*\*\*Ministry Of Healt City Manager Bursa

**INTRODUCTION AND OBJECTIVES:** Cervix cancer is the second leading cancer type in women both by incidence and mortality rates. Mortality can be significantly reduced by successful screening programs. In this study, we examined the relationship between the prevalence, demographic distribution, risk factors and socio-cultural states of patients diagnosed for ASCUS (+) pap smear reported according to Bethesda system. **METHODS:** Opportunistic pap smear screening results reported according to bethesda system done by the 2007 national cervix cancer screening standards of ministry of health were studied with demographic datas in KETEM digital archives. SPSS 17.0 program is used for statistical analysis. **RESULTS:** 13.395 women were enrolled to the screening program between 2005 – 2009. 210 patients were diagnosed as ASCUS (+) (1.6 %). 17 patients were further diagnosed as cervix cancer (8.1%). Mean age for ASCUS (+) patients was 47.2, first marriage age was 19.8, first parity age was 20.6 and mean live birth number was 2.6. 87.6 % of patients were married, 29 % were graduated from primary school, 11.9 % had a job, 34.6 % were in menopause. Statistically significant differences between women's educational level and first marriage age, women's educational level and first pregnancy age, between women's average number of live births and educational level (above primary school level or under primary school level), have been found (t=5.48; t=6.66; t=6.62; p<0.05). No statistically significant difference between women's working state and first marriage age, first pregnancy age has been founded. But there is a significant difference between women's working state (housewife or not) and average number of live births (t=3.56; p<0.05). **CONCLUSIONS:** cervical cancer screening programs are secondary preventing tools. cervix cancer incidence can be lowered 80% by high quality screening. In this study 52.9% of patients were diagnosed in 30-49 age group and as carcinoma in situ, similiar to literature. Significant differences between women's educational and working states and first marriage age, first pregnancy age and average number of live births, which are the risk factors of cervical cancer, have been observed. Key Words: Cervical cancer, conventional cytology, epithelial cell anomaly, ASCUS.

### **P-361 BREAST CANCER SREENING PROGRAM IN BURSA**

F. Karazag\*, G. Yildiz\*, E. Aksaz\*\*, A. Aydemir\*\*, T. Yazici\*\*, N. Ipek\*\*\*, F. Harorlu\*\*, O. Akan\*\*\*\*

\*Done Ocak Cancer Early Detection And Education Center

\*\*AOS Oncology Hospital, Surgical Oncology. Bursa

\*\*\*AOS Oncology Hospital, Radiology. Bursa

\*\*\*\*Ministry Of Health City Manager. Bursa

**INTRODUCTION AND OBJECTIVES:** Breast cancer screening programs is gaining acceptance nation-wide as a government policy. Screening programs are designed as population based, opportunistic and clinic- based screening. Each screening program has different cancer detecting rate and except population based screening programs the other types are done by different centers.

**METHODS:** In our study both population based and opportunistic screening patients over 50 years age admitted to KETEM and symptomatic and asymptomatic patients over 50 years admitted to our breast clinic in oncology hospital between january-december 2009. asymptomatic and non-breast cancer risk group patients are followed bi-annually by mammography, ultrasonography and physical examination. Symptomatic and risk carrying groups are followed as needed. Every patient is educated for breast self examination. Pathologic findings were re-evaluated by general surgeons, radiologists and pathologists.

**RESULTS:** 8691 patients were included in the study. 6441 of these were evaluated in breast clinic, 1421 patients opportunistic, 726 patients population based in KETEM. 308 patients were diagnosed for breast cancer. In the population based in KETEM. 308 patients were diagnosed for breast cancer. In the population based screening group 2 cancer were found. (0,3 %) In opportunistic group 18 cancers were found. (1,2 %) 288 cancers were diagnosed in breast clinic. (4,5 %) In low socio-economic areas patients admittance rates for screening were found to be 70 %.

**CONCLUSIONS:** Since breast cancer screening programs were set as a government policy breast cancer detecting rates. This study shows that breast cancer screening programs may be usefull especially in sub-urban and low socio-economic areas. Higher breast cancer detecting rates were found in breast clinics as expected; but population based screening programs must be a government policy and expanded nation wide, besides opportunistic and clinical based screening programs. Key words: breast, cancer, screening, diagnosis.

### **P-362 EARLY DIAGNOSIS OF CANCER SCREENING AND CONFIGURATION ASSESSMENT OF BREAST CANCER SCREENING STUDIES ACTIVITIES**

M. Oguz, N. Canoler, F. Temel, H. Sohretli, A. Bayrakci

Dr. Abdurrahman Yurtaslan Ankara Oncology Training and Research Hospital, Ahmet Andicen Screening and Early Diagnosis of Cancer Education Center

**OBJECTIVE:** To evaluate the screening efficiency of the cross sectional data from two breast screening studies. **METHOD:** Between 2005 and 2010, 2012 women in the first and second round of screening in the pre-determined age group, and region with the number of cancer cases and their phases, examination findings, mammography and ultrasonography findings being determined. All groups of patients were selected and invited, and were questioned about their complaints, family history, drug use, previous surgery, etc. Physical breast examination, two-way (CC, MLO) mammogram and USG when necessary were performed and TNM classification was staged. **RESULTS:** Of those who were scanned, only two cases had none of cases had no family history of breast cancer. During examinations 7 cases were detected in the group, 11 cases were observed in mammography such as mass or cluster microcalcifications findings of malignancy. In the first round to scan those, 10 invasive ductal carcinoma were found in the sample. Of these, 5 stage I, 3 Stage IIA, 1 stage IIIB, 1 stage IV, respectively. In the Second round 4 of 5 cases invasive ductal carcinoma, invasive lobular carcinoma, were discovered. Of these, 1 was Stage I, 2 stage IIA, IIB and 2, respectively. **CONCLUSION:** Malignancy was determined by looking at cases and stage, the high percentage of stage I cancers, due to the lack of carcinoma insitu and others until stage II and beyond, early diagnosis could not be made. This data suggest that there should be a discussion of screening deficiencies.

### **P-363 DETECTED CANCER CASES IN ANKARA IN THE YEAR 2007 AND ITS DISPERSION IN RESPECT TO ITS CERTAIN PROPERTIES**

S. Aksoy, J. Ozturk, A. Yuçel, S. Tutuncu, N. Karabacak, N. Erozan, B. Yildirim  
Ankara Province Health Directorate

**Introduction and Objectives** Ankara is one of the 8 cities of Turkey in which there is cancer cases are continuously seen. This study aims at pointing out to the detected cancer cases in Ankara in the year 2007 and its dispersion in respect to its certain properties. **Methods** This study was carried out through the analysis of the collected data by a standard form for the year 2007 that is reported by the Cancer Control Unit of the Ankara Province Health Directorate. The data that is used for the study is gathered from the cases that are collected from 67 hospitals and are reported to the Health Department in. **Results** 18523 cases were recorded in Ankara, 55.5% were males and 44.5% were females. 3.4%, on the other hand, were cancer cases seen during the childhood period. Average age was 54.8. In the cases that are diagnosed in male grown-up patients, the first five cancer types that are diagnosed are as follows: lung(22,0%), prostate(10,3%), colorectal(8,4%), bladder(7,6) and gastric cancers(7,0%). Breast(26,3%), genital(13,6%), thyroid(8,6%), colorectal(8,1%), skin cancers(6,4%) are the cancer types that are diagnosed in female grown-ups. The five most diagnosed cancer types in childhood period are leukemia(23.8%), brain and spinal cord cancers(16.5%), lymphoma(13.6%), retinoblastoma(7.7%), kidney cancers(6.4%). **Conclusions** In order to establish new strategies about cancer and prevention, accurate identification of the cases is necessary. With this aim, active recording of the cancer cases in Ankara is being maintained. The accurate determination of the cancer cases will be a crucial determinant in taking the necessary steps about this disease.

### **P-364 CERVICAL CANCER SCREENING YEAR 2009-2010 RESULTS**

N. Canoler, F. Temel, M. Oguz, G. Okuducu, T. Menten

Dr. A. Y. Ankara Onkoloji Eğitim Araştırma Hastanesi Ahmet Andicen KETEM

Our goal of cervical cancer screening and to increase awareness is to recognize the early stages. All women between the ages of 35-65 who were admitted to our center were tested with conventional smear. Disposable endocervical brush was taken, were spread on the lam with a specially crafted solutions were determined. Between 2009 - 2010 admitted to our center from 1150 women's pap smear was taken. 15 cases of gynecological consultations, 7 patients were colposcopy and biopsy. Smear and biopsy results according to the ASC-US in 6 women, AGC in 3 women, HSIL in one woman, one woman in the CIN III, stage 0 in one woman, one woman in squamous cell carcinoma in stage Ia, one woman in the stage III poorly differentiated squamous cell carcinoma was diagnosed. Cases have no family history. 8 postmenopoz of cases and 5 premenopoz, one has regularly menstruation were seen. Average age of cases was 52. Each woman participating in the screening awareness training is provided. Determined by the treatment of gynecological malignancies are carried out. ASC-US, HSIL, CIN III and AGC diagnosed were taken follow and treatment. 5-year results of our study is received with the results of other centers by evaluating the incidence of cervical cancer in our country.

about to obtain more reliable data are considered.