history, reproductive and hormonal status, diet, alcohol, tobacco, and occupational information are being collected just as histology, stage, treatment and survival.
Results: From October 2007 to February 2009, 409 female newly diagnosed of lung cancer were collected in an e-database in 22 Spanish centers. Patients (p) characteristics are: median age 61.7 years (y) (range: 36−87); Caucasian: 98.2%; Marital status (%): married 67.7, unmarried 11.2, divorced 7.1, widow 14. Educational level (%): basic 57.4, secondary 29.1, university 13.5. Median age of menarche 12.7 y. Children: 79.4% (median: 2); Median age of first child 27 y. Oral contraceptive: 30.6%. Pre-menopausal 15.4%, postmenopausal 84.6%. Median age of menopause 46.7 y. HRT: 5.3%. Median duration of HRT: 4.4 y. Obesity: 11.3%. Smoking habit (%): never (passive smoker/no exposition)/former/current smokers: 42 (42.8/57.2)/19/39; Median packs/year 72.4. Former smokers: 1−5/5−10/10−15/>15 y (%): 51/11.8/7.8/29.4. Work exposure 3.5%. Alcohol consumption 3.2%. Familiar history of cancer: 45.5% (lung cancer 29.7%). Previous history of cancer 13.8% (breast 33.3%). Current lung cancer histology (%): adenocarcinoma/BAC/squamous/large cell/NOS: 70.4/5.7/10.4/7.9/5.7. SCLC 11.8%. TNM I/II/III/IV (%): 16/3.9/28.7/51.4. Surgical treatment 24.7% (lobectomy/pneumonectomy/exploratory: 85.5/9.2/5.3%). Available data of 122 stage IV NSCLC p: 74.6% receive chemotherapy, 92.3% of them two drugs and 68.9% platinum-based (59% cisplatin). EGFR mutations analysis 7.9%.
Conclusions: According this series, 42% Spanish lung cancer women are never smokers and 70.4% have adenocarcinoma. Other collected information, choice of treatment and survival outcomes will be also analyzed.

9032 POSTER

The effects of prenatal factors on the development of non-small cell lung cancer

F. Ozdemir[1], S. Ozdemir[2], B. Yildiz[1], E. Fidan[1], H. Kavgaci[1], F. Aydin[1].
[1]Karadeniz Technical University Medical Faculty, Medical Oncology, Trabzon, Turkey; [2]Karadeniz Technical University Medical Faculty, Family Medicine, Trabzon, Turkey

Background: Lung cancer is still the most frequently encountered cancer and the leading cause of deaths from cancer. The effect of certain prenatal factors on the overall health of infants has been investigated for a long time. The aim of the present study was to investigate the possible effects of prenatal factors on the development of non-small cell lung cancer (NSCLC). Materials-Metods: The study participants included 101 patients with NSCLC, who attended the Medical Oncology Outpatient Clinic of the Farabi Hospital at the Karadeniz Technical University School of Medicine. The same questionnaire was applied to both the patient and control groups. Prenatal factors, together with other known factors for the development of NSCLC, were addressed via this questionnaire. The normality of the distribution of data was evaluated by using the Kolmogorov Smirnov test for each group. The Student t-test was used for comparison of variables with a normal distribution, both in the NSCLC and control groups. Qualitative data were analyzed via a chi-square test.
Results: It was determined that patients with NSCLC had older parents compared to the control group ($p < 0.0005$; $p < 0.0005$). In addition, a lower level of education, lower income, larger families, increased prevalence of smoking in the patients, increased prevalence of smoking in the patient's father, and having more first degree relatives with a history of cancer were detected in the patient group compared to the control group ($p < 0.0005$). Also, the height of the patients was shorter than the height of the control group ($p = 0.003$). When the patients were classified as normoweight, overweight, or obese according to their body mass index, a lower ratio of patients with NSCLC was overweight when compared to the control group ($p < 0.0005$).
Conclusison: In light of the present study, having older parents is a risk factor for the development of NSCLC, in addition to other known risk factors. Further comprehensive studies are needed in this subject.

9033 POSTER

Multicenter evaluation of malignancy in small-sized lung adenocarcinomas: revision of variations among institutions and underestimation generated by tumor size on PET/CT values using a phantom study

Y. Tsutani[1], H. Daisaki[2], H. Nakayama[3], S. Okumura[4], S. Adachi[5], M. Yoshimura[6], H. Sakai[5], K. Otsu[7], M. Okada[1]. *[1]Hiroshima University, Surgical Oncology, Hiroshima, Japan; [2]National Cancer Center, Radiology, Tokyo, Japan; [3]Kanagawa Cancer Center, Thoracic Surgery, Yokohama, Japan; [4]Cancer Institute Hospital, Thoracic Surgery, Tokyo, Japan; [5]Hyogo Cancer Center, Radiology, Akashi, Japan; [6]Hyogo Cancer Center, Thoracic Surgery, Akashi, Japan; [7]Kanagawa Cancer Center, Radiology, Yokohama, Japan*

Background: Malignant biological aggressiveness of small lung adenocarcinomas (AD) remains unclear, and understanding this feature is critical for choosing suitable treatment. We evaluated malignancy using fluorodeoxyglucose-positron emission tomography/computed tomography (PET/CT), high-resolution CT (HRCT) and postoperative pathological examination in a multi-institutional setting. Moreover, we focused on inconsistencies generated by multicenter studies resulting from PET/CT instruments of variable quality and inconsistencies induced by small tumors.
Materials and Methods: A total of 201 patients with clinical T1N0M0 AD underwent PET/CT and HRCT followed by complete resection. We analyzed relationships among components of bronchioloalveolar carcinoma (BAC) on pathological specimens and maximum standardized uptake values (maxSUV) on PET/CT, the ground-glass opacity (GGO) ratio and tumor disappearance rates (TDR) on HRCT, and the associations between these findings and surgical outcomes. MaxSUV data were adjusted by an experimental phantom study (corrected maxSUV), and underestimation of corrected maxSUV data by tumor size were successively revised using a correction equation based on the phantom study (PVC-maxSUV).
Results: The phantom study decreased overall variations in maxSUV among institutions from 7.5% to 3.9%. PVC-maxSUV, pathological BAC ratio, TDR and the GGO ratio reflect tumor malignancy grade in that order in terms of lymphatic permeation, vascular and pleural invasion and nodal metastasis. Although TDR ($R2 = 0.5082$) and the GGO ratio ($R2 = 0.5860$) closely correlated with the BAC ratio, PVC-maxSUV ($R2 = 0.2652$) and corrected maxSUV ($R2 = 0.2628$) were far less important preoperative indicators of the pathological BAC proportion. PVC-maxSUV (cutoff value = 4.0, $p = 0.001$), corrected maxSUV (cutoff value = 2.5, $p = 0.003$) and the pathological BAC ratio (cutoff value = 50%, $p = 0.010$) were significant prognostic factors of disease-free survival, whereas the GGO ratio (cutoff value =50%, $p = 0.054$) and TDR (cutoff value = 50%, $p = 0.202$) were not.
Conclusions: Phantom studies can minimize inter-institutional variations and underestimations induced by tumor size on maxSUV, which reflects malignant biological grade in clinical T1N0M0 AD, independently to the BAC ratio. Preoperative PET/CT assessment in addition to HRCT is useful for selecting appropriate strategies for treating small lung AD.

9034 POSTER

Medical treatment choices of over 1000 Italian patients affected by stage IIIB-IV NSCLC in routine clinical practice: results from the observational "SUN" (Survey on the lUng cancer maNagement) study on behalf of SUN study Group

S. Barni[1], E. Bajetta[2], F. De Marinis[3], L. Crinò[4], A. Ardizzoni[5], A. Caprioli[6], A. Favaretto[7], R. Giannicola[8], G. Filippelli[9], C. Gridelli[10]. *[1]Ospedale Treviglio Caravaggio, Medical Oncology/Pneumology, Treviglio, Italy; [2]Istituto Nazionale Tumori, Medical Oncology/Pneumology, Milano, Italy; [3]Az. Osp. San Camillo - Forlanini, Medical Oncology/Pneumology, Roma, Italy; [4]Azienda Ospedaliera Perugia, Medical Oncology/Pneumology, Perugia, Italy; [5]Azienda Ospedaliera di Parma, Medical Oncology/Pneumology, Parma, Italy; [6]Spedali Civili di Brescia, Medical Oncology/Pneumology, Brescia, Italy; [7]Istituto Oncologico Veneto, Medical Oncology/Pneumology, Padova, Italy; [8]Az. Osp. Bianchi Melacrino Morelli, Medical Oncology/Pneumology, Reggio Calabria, Italy; [9]Ospedale Civile San Francesco di Paola, Medical Oncology/Pneumology, Paola Cosenza, Italy; [10]A.O.R.N. San Giuseppe Moscati, Medical Oncology/Pneumology, Avellino, Italy*

Background: Treatment options of locally advanced or metastatic non-small cell lung cancer (NSCLC) have substantially evolved during the last decade. The development of third-generation agents, such as vinorelbine or gemcitabine, has led to an improved therapeutic management of NSCLC, especially when tailored to patients' comorbidities and performance