

m<sup>2</sup> and oxaliplatin 130 mg/m<sup>2</sup> on day 1, and S-1 40 mg/m<sup>2</sup> twice a day on days 1-14 of every 21-day cycle. This regimen seems to have promising preliminary activity.

Funding: None.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.039

#### **P39 A20 BINDING AND INHIBITOR OF NF-KAPPAB (ABIN-1) – A POTENTIAL MARKER FOR SURVIVAL IN EARLY STAGE NON-SMALL-CELL LUNG CANCER AFTER LUNG RESECTION**

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**Background:** Currently, the role of A20 binding and inhibitor of NF-kappaB (ABIN-1) in the development of non-small-cell lung cancer remains unknown. This retrospective study investigated expression of ABIN-1 and the association with prognosis in patients with NSCLC after lung resection.

**Methods:** Quantitative real-time reverse transcriptase (RT)-PCR, and Western blot analyses were used to detect expression of ABIN-1 in 30 samples of NSCLC tissue and paracarcinomatous lung tissue (PCLT), and in four samples of normal lung tissue. In addition, immunohistochemical analysis was done for 80 NSCLC specimens, and follow-up data from these patients were reviewed.

**Findings:** Both mRNA and protein expression of ABIN-1 were significantly raised in NSCLC tissues compared with normal lung tissues. Patients with NSCLC who had high ABIN-1 expression had shorter overall survival than patients who had low ABIN-1 expression.

**Interpretation:** The current data revealed that increased expression of ABIN-1 was correlated with survival in patients with NSCLC, indicating that ABIN-1 is a novel prognostic marker for NSCLC.

Funding for this study: None.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.040

#### **P40 CLINICOPATHOLOGICAL PATTERN, CLASSIFICATION, P53 STATUS, AND STAGING OF URINARY BLADDER CARCINOMAS – SIX-YEAR EXPERIENCE AT A TERTIARY CARE HOSPITAL IN CENTRAL PUNJAB**

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**Background:** Transitional-cell carcinoma (TCC) of the urinary bladder is reported as the eighth most common malignancy and the fourth most common among men in Pakistan. This study aimed to assess the clinicopathological pattern, p53 status, and stage distribution of TCC, and to classify bladder carcinomas pre-

senting among the population of central Punjab, including factory workers, according to the revised WHO/ISUP criteria.

**Methods:** 145 patients, including 52 factory workers (mean age 35.2 years), with newly diagnosed operable primary bladder carcinomas who underwent cystoscopy-associated transurethral resection of bladder tumours from January, 2004, to July, 2006, were included. Relevant clinical and laboratory data of these patients, including age, sex, tumour location, and type of surgical procedure, were recorded in separate proformas. After confirmation of the diagnosis, the tumours were graded separately for each group – first, according to WHO Classification 1972 as papilloma, TCC grade I, II, and III, and later, according to WHO/ISUP Consensus Classification 1998 as papilloma, papillary neoplasm of low malignant potential (PNLMP), low-grade papillary carcinoma (LGPC), and high-grade papillary carcinoma (HGPC). Tumour staging was done according to TNM criteria of the American Joint Commission on Cancer. All tissues were also subjected to immunohistochemistry (IHC) with monoclonal anti-P53 antibody. Patients were followed up for 3 years, from hospital records until July, 2010. Data were entered and analysed using SPSS 17.0.

**Findings:** About 80% of patients were men and 20% were women (the male-to-female ratio was 5.3:1). Clinical history was similar for both sexes, with most patients (74%) presenting with haematuria with or without altered urinary habits. WHO grading revealed 35.9% grade I, 25.4% grade II, and 38.6% of tumours as grade III. ISUP classification revealed 19.2% PNLMP, 23.6% LGPC, 39.4% HGPC, 9.6% non-papillary urothelial carcinomas (NPUC), and 7.9% as carcinoma in situ (CIS). Tumour staging depicted an overall 11.5% of tumours with stage Ta and 31.5% with stage T3-4. Among 71% invasive carcinomas, 16% were low-grade and 84% were high-grade carcinomas. Immunohistochemical staining of histological tissue sections of 73% of CIS and 84.23% of TCCs were p53 positive. 10.7% of grade I, 44.9% of grade II, and 92.1% of grade III tumours were positive for p53. There were significantly more p53-positive cases seen in grade II-III tumours than in grade I tumours ( $p = 0.0036$ ). Similarly, stage T2-T4 tumours stained more frequently and stronger than stage T1 tumours ( $p = 0.021$ ). No significant association between p53 status and post-operative prognosis was observed in the 3 years of follow-up ( $p = 2.131$ ).

**Interpretation:** Prolonged follow-up of patients with bladder cancer may indicate an unfavourable prognostic factor linked to histopathological findings, and the presence of p53 mutation, which may also indicate development of aggressive growth characteristics in TCCs.

Funding: Sheikh Salim Ali & Co. Private Limited & Trust.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.041

#### **P41 EPIDERMAL GROWTH-FACTOR RECEPTOR MUTATIONS AND METASTATIC PRESENTATION IN NON-SMALL-CELL LUNG CANCER**

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**Background:** We performed this retrospective study to assess the association of mutations in the epidermal growth-factor receptor (EGFR) gene with metastatic presentation in patients with advanced non-small-cell lung cancer (NSCLC).

**Methods:** Data from 125 patients with stage III or IV NSCLC, who were screened for EGFR mutations between March, 2007, and June, 2010, were analysed.

**Findings:** We detected EGFR mutations in exons 18, 19, and 21 in 36 patients (29%). EGFR mutations were predominant in never-smokers ( $p < 0.001$ ), patients with adenocarcinoma ( $p < 0.001$ ), and female patients ( $p < 0.001$ ). Analysis of metastatic site with respect to mutation status showed that pleural metastases were associated with a high incidence of EGFR mutation ( $p = 0.028$ ) – particularly, pleural metastases with minimal effusion (PMME;  $p = 0.001$ ). Patients with N3 lesions were less likely to harbour EGFR mutations ( $p = 0.033$ ). In multivariate analysis, N3 lesions ( $p = 0.017$ ) and PMME ( $p < 0.001$ ) remained significant factors for EGFR mutations, whereas gender did not ( $p = 0.805$ ).

**Interpretation:** Our data indicate that EGFR mutations may be associated with different presentations of pleural and N3 nodal metastases in patients with NSCLC.

**Funding:** None.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.042

#### P42 BREAST-CANCER RISK FACTORS IN PAKISTANI WOMEN – A CASE-CONTROL STUDY

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**Background:** There are limited data regarding risk factors for breast cancer in Pakistan, although it is the most common female cancer, with an incidence 2.5 times as high as other countries in the region. This study investigated risk factors for female breast cancer in a Pakistani population in southern Punjab.

**Methods:** A case-control study was done in the fall of 2010, involving 100 breast-cancer patients and 150 control individuals who screened negative for breast cancer on mammography. Information about demographic characteristics and potential risk factors for breast cancer was gathered from both groups using a standard questionnaire. Logistic regression analysis was done to determine the association of various potential risk factors with breast cancer.

**Findings:** In multivariate logistic regression analysis, risk of breast cancer was significantly increased in women older than 40 years (odds ratio [OR] 2.66, 95% CI 1.16–6.12), with more than four full-term pregnancies (OR 5.33, 1.96–14.53), married (OR 2.35, 1.34–3.14), living in rural areas (OR 3.86, 1.63–9.13), and postmenopausal (OR 4.19, 1.70–10.36). Breast-cancer risk was significantly decreased in women with contraceptive use (OR 0.13, 0.02–1.04) and no family history of breast cancer (OR 0.28, 0.12–0.69). In addition, no significant association was found between breast-cancer risk and age at menarche, age at first live birth, age at menopause, breastfeeding, and history of spontaneous or induced abortion.

**Interpretation:** The findings of this study suggest that age > 40 years, parity, marital status, locality, menopausal status, contraceptive use, and family history of breast cancer are significantly associated with breast-cancer risk in Pakistani women in southern Punjab.

**Funding:** None.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.043

#### P43 EFFICACY OF ANTIEMETICS IN PATIENTS RECEIVING XELOX – A SINGLE-CENTRE, PROSPECTIVE STUDY

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**Background:** XELOX (combination therapy of capecitabine and oxaliplatin) is known to cause nausea and vomiting, despite adequate administration of antiemetics. Furthermore, specific risk factors that may increase the risk of nausea and vomiting are unknown.

**Methods:** This was a single-centre, prospective, cohort study. Patients were recruited on the day of chemotherapy, and were followed up after 5 days to assess nausea, vomiting, and use of antiemetics. Patients were assessed for nausea and vomiting control, as well as complete response, complete protection, and complete control of antiemetics. Use of delayed and breakthrough antiemetics were assessed, and multivariable logistic regression was done to evaluate risk factors that predisposed patients to nausea and vomiting despite use of antiemetics.

**Findings:** 156 patients were included in this analysis. The median age was 60 years (IQR 55–65) with 88 (56.4%) men and 68 (43.6%) women. The proportion of patients achieving complete response, complete protection, and complete control within 24 hours after chemotherapy was 87.8%, 80.8%, and 62.8%, respectively. These proportions continued to decline throughout the follow-up period to 76.9%, 64.7%, and 48.7%, respectively, at the end of the 5 days. Patients who had fewer than three risk factors (odds ratio [OR] 3.13,  $p = 0.006$ ), who received oxaliplatin less than 100 mg/m<sup>2</sup> (OR 3.23,  $p = 0.009$ ), and who received capecitabine less than 1500 mg/m<sup>2</sup> (OR 5.00,  $p = 0.04$ ) were more likely to achieve complete response to antiemetics.

**Interpretation:** This study showed that an unacceptably high proportion of patients receiving XELOX were unable to attain adequate control of nausea. Future research should focus on the optimisation of antiemetic therapy for patients receiving XELOX.

**Funding:** National University of Singapore, Faculty of Science start-up grant.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.044