been no documented reports of the association between XPD-Lys751Gln and nasopharyngeal carcinoma risk until now. The frequency of the XRCC1 codon 280 homozygous wild-type Arg/Arg genotype was 77.9% (88/113) in cases and 80.8% (105/130) in controls; the heterozygous Arg/His genotype was 21.3% (24/113) in cases and 18.5% (24/130) in controls; and the His/His genotype was 0.8% (1/113) in cases and 0.7% (1/130) in controls. For XRCC1 codon 280 polymorphisms, no significant association between Arg280His and risk of NPC was found (OR 1.30, 95% CI 0.66–2.57; p=0.447).

Interpretation: Risk of NPC was nearly two and a half times higher for individuals with the homozygous wild-type Lys/Lys genotype than for the heterozygous Lys/Gln genotype, adjusted for age, sex, and ethnicity. To our knowledge, there have been no documented reports of the association between XPDLys751Gln and nasopharyngeal carcinoma risk until now.

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## OP13 NIMOTUZUMAB COMBINED WITH RADIOTHERAPY FOR OESOPHAGEAL CARCINOMA – A PHASE 2 CLINICAL TRIAL

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Background: We evaluated the safety and efficacy of nimotuzumab in combination with radiotherapy for oesophageal carcinoma (ESO).

Methods: 42 patients with stage II–IVa ESO were randomly assigned as part of this prospective, phase 2 trial, from November, 2008, to July, 2010. All patients received 50–70 Gy three-dimensional conformal radiotherapy. 200 mg of nimotuzumab was administered via intravenous infusion once a week during radiotherapy.

Findings: Primary cancer lesions were located in the upper, middle, and lower thoracic segments of the oesophagus in 10, 26, and 3 patients, respectively. Nine patients had stage II ESO, 25 had stage III, and eight had stage IVa. All patients received 50–70 Gy of radiation and 37 patients (88.1%) received nimotuzumab more than five times. Grade 3 toxicities were nausea and vomiting (n = 1), oesophagitis (n = 3), skin reactions (n = 4), and haematological toxicity (n = 1). One patient had an allergic reaction to nimotuzumab. Four patients (9.5%) had a complete response, 21 (50%) had a partial response, two (4.8%) had stable disease, and 15 (35.7%) had progressive disease. The overall

disease control rate was 64.3%. With a median follow-up of 6 months, local recurrence was observed in six patients (14.3%) and distance metastasis in ten (23.8%). Ten patients died, with eight possible cancer-related deaths. The median survival time has not yet been reached. 6-month and 1-year overall survival rates were 82.4% and 57.8%.

Interpretation: Nimotuzumab in combination with radiotherapy is well tolerated and effective for treatment of ESO. Long-term toxicity and long-term efficacy require further evaluation.

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P14 SCREENING FOR GASTRIC-CANCER MICROMETASTASES IN A SINGLE SENTINEL LYMPH NODE WITH REAL-TIME PCR – A PRELIMINARY STUDY WITH THE MARUYAMA COMPUTER SIMULATION

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Background: Sentinel lymph node (SLN) mapping has recently been introduced in the treatment of gastric cancer. Although immunohistochemistry and conventional real-time PCR (RT-qPCR) provide reliable information about micrometastases in SLNs, they cannot examine large numbers of lymph nodes in a short time, making them unfeasible for intraoperative use. The SLN is defined as the first node to receive cancer-cell drainage from the primary tumour, therefore micrometastases or isolated tumour cells should first develop in these nodes. In this preliminary study, we evaluated the concept of single SLN screenings for micrometastases by use of the Maruyama computer program.

Methods: 23 patients were enrolled in our study: nine patients were included in the control group and 14 in the study group. The first stained lymph node was analysed with RT-qPCR for carcino-embryonic antigen and CK-20 expression, as markers for micrometastases. Patients' characteristics were retrospectively used as predictors in the Maruyama computer program, to determine the most likely metastatic site. Results were compared with the actual staining patterns, and correlations between tumour characteristics and micrometastases were examined.

Findings: 14 patients were found to be N0. Micrometastases were detected in four patients (28.6%). In 76.9% of cases, extracted SLNs coincided with lymph nodes predicted by the computer program to be the most likely metastatic site. Micrometastases were more common in Maruyama-predicted lymph nodes. Lauren's histological type distribution, preoperative CA 19-9 values, and age distribution differed significantly between patients who were positive and negative for micrometastases.

Interpretation: These results indicate the potential use of a single SLN for intraoperative decision making; however, sensitivity and specificity need to be evaluated in a larger series, supported by long-term recurrence and survival results.

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## P15 MORBIDITY, MORTALITY, AND SURVIVAL OF PATIENTS WITH PROXIMAL GASTRIC ADENOCARCINOMA AFTER PROXIMAL SUBTOTAL GASTRECTOMY – A COMPARATIVE STUDY

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Background: The advantages of proximal resection with jejunal interposition and modified D2 lymphadenectomy, for elderly patients, could outweigh the higher risk of recurrence with this less radical lymphadenectomy. The aim of our study was to evaluate proximal resection with modified D2 lymphadenectomy as an alternative in selected patients.

Methods: Between 1993 and 2009, 161 patients at our centre had surgery for adenocarcinoma of the proximal third of the stomach. Patients were divided into three groups: (1) PG, proximal resection with jejunal interposition and modified D2 lymphadenectomy (19.3%, 31 patients); (2) TH, transhiatal extended total gastrectomy with resection of the distal oesophagus and D2 lymphadenectomy (23.6%, 38 patients); (3) GT, total gastrectomy with D2 lymphadenectomy (57.1%, 92 patients). We analysed postoperative morbidity, 30-day mortality, and survival. Quality of life was evaluated with the gastrointestinal quality-of-life index (GIQLI) questionnaire.

Findings: Patients in the PG group (79.4  $\pm$  9 years) were significantly older than the patients in the GT (63.9  $\pm$  11 years) or TH group (60.1  $\pm$  12 years; p < 0.0001), and in worse general condition. Fewer lymph nodes were harvested in the PG group (17.2  $\pm$  11) than in the GT and TH groups (24.05  $\pm$  13 and 26.3  $\pm$  13). There were no significant differences in the distribution of pathohistological characteristics and tumour TNM stages between groups. An R0 resection could be done in 77.2–86.8% of cases. 30-day mortality was 9.7% in the PG group, 6.5% in GT, and 5.3% in TH. There were no differences in morbidity and 5-year survival between groups (25.3% in PG, 26.3% in GT, and 28.9% in TH). No differences were found in the total scores of the GIQLI questionnaire (p = 0.893). Patients in the PG group had the lowest scores in digestive functions.

Interpretation: Proximal resection should be reserved for highrisk elderly patients with proximal gastric cancer, who have shorter expected long-term survival. These resections carry acceptable morbidity and mortality; however, reconstruction with jejunal interposition does not bring the desired functional benefits.

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## P16 MAIN DETERMINANTS OF SEVERE NEUTROPENIA IN PATIENTS WITH SOLID TUMOURS RECEIVING ADJUVANT CHEMOTHERAPY

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Background: Chemotherapy-induced neutropenia, a toxic effect of systemic chemotherapy, is often associated with substantial mortality and morbidity; thus, identifying its related determinants is necessary. The aim of this study was to identify the main consequences of severe neutropenia following adjuvant chemotherapy, in a community-based population of patients with cancer in Iran-Semnan.

Methods: This prospective study included 828 consecutive patients who received chemotherapy for histologically proven primary or metastatic solid tumours. Demographics data, disease characteristics, and comorbidities (including current smoking and diabetes) were collected from interviews with the patients and their laboratory data and files. Patients had a complete blood count 1 week after the first course of chemotherapy.

Findings: Based on the absolute neutrophil count nadir value, 30 patients (3.6%) had severe neutropenia. Multivariable logistic-regression analysis showed that advanced age (OR = 5.262, p = 0.012) and diabetes mellitus (OR = 8.126, p = 0.015) were main determinants of severe neutropenia, with the presence of demographic characteristics and comorbidities as confounders.

Interpretation: We identified advanced age and diabetes as main determinants of high-grade neutropenia in Iranian patients with solid tumours who were receiving adjuvant chemotherapy.

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## P17 CLINICAL OUTCOMES AND PROGNOSTIC FACTORS FOR SURGICAL TREATMENT OF ADVANCED MEDULLARY THYROID CARCINOMA

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Background: Total thyroidectomy and central neck dissection are the procedures of choice for patients with medullary thyroid carcinoma (MTC). We reviewed patients with advanced MTC who underwent surgical treatment, to discuss the clinical outcomes and prognostic factors.

Methods: 132 patients had total or subtotal thyroidectomy with central neck dissection. Ipsilateral (n = 96) and bilateral (n = 36) modified radical neck dissection was done simultaneously, in patients with and without evidence of suspicious lymph nodes. After surgery, basal and stimulated serum calcitonins (Cts) were measured in all patients. Follow-up ranged between 5 and 12.5