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P-0077 hTERT CIRCULATING DNA AS AN INDICATOR FOR GASTRIC AND ESOPHAGEAL CANCERS IN ARDABIL, IRAN

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Background: In Iran, Gastric Cancer (GC) is the most common cancer in the men and has been detected as the third among women. Ardabil province, in northwestern Iran, has the highest rate of GC in this country. Esophageal Cancer (EC) is a relatively rare form of cancer, but some world areas have a markedly higher incidence than others: Belgium, China, Iran, Iceland, India, Japan, the United Kingdom, appear to have a higher incidence, as well as the region around the Caspian Sea. The American Cancer Society estimates that during 2007, approximately 15,560 new esophageal cancer cases will be diagnosed in the United States. Esophageal cancer is the 6th most common cause of cancer death in the world. Among last years, circulating nucleic acids on serum and plasma have been detected as an indicator in some cancers. In the present investigation, detecting the human Telomerase Reverse Transcriptase (hTERT) DNA as catalytic subunit of telomerase on serum of cancer affected patients compared to control group has been studied.

Methods: DNA extraction was carried out on serum samples obtained from 100 primary GC affected patients, 100 primary EC affected patients and 100 participants with any detected cancer affecting persons in their 1st to 3rd degree of relatives as control group for each type of cancer. Quantitation detecting the hTERT DNA was performed by the TaqMan assay on Real time PCR system by using appropriate serial dilutions of genomic DNA to create standard curve.

Results: Qualitative findings showed hTERT DNA presentation in 45.4%, 68.5%, and 23.9% of GC group, EC group, and controls, respectively. Those tend to significant associations between hTERT DNA in the serum and GC and EC in our province. Quantitative amounts of detected hTERT DNA were associated with gastric and esophageal carcinomas and the tumors pathologic indicators as well.

Conclusion: Finding prognostic factors by non-invasive assays could help us to manage the therapeutic and diagnostic procedures, especially for cancers with low survival such as GC and EC. Also, associations found between hTERT in the serum and pathologic data indicate on the important role of telomerase activation in gastric and esophageal tumorigenesis.

P-0078 HELICOBACTER PYLORI DOES NOT AFFECT THE EXPRESSION OF MICROSATELLITE INSTABILITY AND P53 IN EARLY GASTRIC CANCER TREATED BY ENDOSCOPIC SUBMUCOSAL DISSECTION

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Background: To investigate the relationship between *Helicobacter pylori* (*H. pylori*) infection, microsatellite instability (MSI) and the expressions of the p53 in gastric adenocarcinoma and to elucidate the mechanism of gastric carcinogenesis relating to *H. pylori* infection in early gastric cancers (EGCs) treated by endoscopic submucosal dissection (ESD).

Methods: Since May 2005 through September 2010, patients with EGC who were candidate of endoscopic submucosal dissection were enrolled. MSI loci were studied by PCR-SSCP-CE using the markers BAT-26, D17S261, D3S1283, D2S123, and D3S1611. MSI was defined as the peak shift in the DNA of the gastric tissue compared with that of the peripheral blood samples. Based on the number of mutated MSI markers, specimens were characterized as MSI if they manifested instability at least one marker and microsatellite stable (MSS) if they showed no instability at any marker. *H. pylori* infection was detected by urea breath test and rapid urease test. p53 expression was detected by tissue immunohistochemical staining.

Results: 140 patients were enrolled. Male were 89 and female were 51. Average age was 62.9. Presence of *H. pylori* was noted in 71 patients (50.7%). Presence between MSS and MSI was expressed in 127 (90.7%) and 13 (9.3%). Presence of p53 was noted in 52 (37.1%) of all patients. Of 52 patients, 28 patients (53.8%) had positive findings of *H. pylori*. There were no statistical differences in presence of *H. pylori* related with MSI and P53.

Conclusions: *Helicobacter pylori* does not affect the expression of P53 and MSI in EGC that are included in the indication of endoscopic resection.

P-0079 ECF / ECX / EOX FOR LOCAL ADVANCED OESOPHAGO-GASTRIC CANCER - HISTOLOGICAL AND RADIOLOGICAL RESPONSE ANALYSES

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Introduction: The efficacy of ECF for the therapy of local advanced oesophago-gastric cancer in terms of overall survival as well as disease-free survival has previously been demonstrated (Cunningham et al, 2006). However, neither the histological nor the radiological responses were analysed. The present study aimed at investigating these parameters.

Method: Patients (N=22; mean age = 64 years (38-76)) with local advanced oesophago-gastric cancer (gastro-esophageal junction: N = 14; stomach: N = 8) treated with preoperative chemotherapy with ECF / ECX / EOX were evaluated for the period 2006-2009. The staging was standardized with endoscopic ultrasound, multislice computed tomography before the initiation of chemotherapy and before surgery. The radiological response was assessed according to RECIST and the histological response in the resected specimen was assessed based on the criteria of Becker et al, 2003.

Results: The radiological analysis showed a response rate in 44% (14% complete and 40% partial response rates), a stable disease in 23% and a progressive disease in 45% of cases. Furthermore, the histological analysis identified a grade I response in 18%, a grade II response in 23% and a grade III response in 45% of cases. Concerning side effects, 9% of the patients had adverse events grade III and 5% grade IV.

Conclusion: By showing response rates of 44% in the radiological and 31% in the histological analysis the present study confirms that the preoperative therapy of local advanced oesophago-gastric cancer with ECF / ECX / EOX is effective. In contrast to imaging studies employing DCF (37% response (Van Cutsem et al, 2006) and histological studies using PLF (36.7% response; Stahl et al), ECF/ECX/EOX had less grade III-IV adverse events (DCF 69%, ECF/ECX/EOX 42%). Based on the present findings the authors suggest that ECF / ECX / EOX treatment should be standard therapy for primary operable local advanced oesophago-gastric cancer.

P-0080 HETEROGENEOUS EXPRESSION OF INTEGRINS IN PRIMARY AND METASTATIC GASTRIC CANCER

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Background: Metastatic spread of cancer cells is a key event in tumor progression and in determining the prognosis of patients with malignant disease. Changes in expression of adhesion molecules play a pivotal role in the induction of the tissue differentiation. Our objectives were to correlate the expression pattern of various adhesion molecules with the clinicopathological features and patient survival and confirm the results using a coculture spheroid model.

Methods: The clinicopathological features of 94 patients (57.4% male, 42.6% female, median age of 66,2 years) with gastric cancer were characterized using univariate and multivariate analysis. Further we compared the expression profile of adhesion molecules namely fibronectinreceptor, collagenreceptor, lamininreceptor, vitronectinreceptor, E-Cadherin and VLA 4 in primary gastric tumors (n=94) and their synchronous metastases (regional lymph nodes n=32, liver n=14, peritoneum n=17) using Avidin Biotin complex immunoperoxidase staining. A coculture in vitro model, i.e. the homo- and heterotypic spheroid model were performed as a functional test system to confirm the microenvironmental impact on the biomarker expression level.

Results: Strong collagenreceptor expression was found in both primary and metastatic tumors. High expression of collagenreceptor significantly correlated with metastatic disease (UICC TNM stage IV, p=0,001). Contrary, the expression of lamininreceptor