

Aims: The purpose of the study was to compare sialyl Lewis antigen proliferation on gastric cancer cells and non-cancer cells and to evaluate their possible roles in grading malignancy and predicting the development of liver metastasis.

Methods: We analyzed 20 patients with advanced gastric cancer (6 had liver metastasis) from January 1998 to April 1999. We compared sialyl Lewis A (sLeA) and sialyl Lewis X (sLeX) expressed in cancer cells and non-cancer cells in 10000 and 30000 cells respectively. We used monoclonal antibodies CA19-9 and KM-93 to evaluate the frequency (%) and quantity (channels) expressing sLeA and sLeX by FACScan.

Results: 1) The frequency of expression of sLeA and sLeX on cancer cells were 31.0% and 44.7% which was statistically higher than in non-cancer cells 8.2% and 16.3%. 2) The quantity of expression of sLeA and sLeX on cancer cells was 346.5 channels and 294.3 channels, which was statistically higher than the 99.7 channels and 183.8 channels on non-cancer cells. 3) The frequency of expression of sLeA and sLeX 45.1% and 49.9% on cancer cell in liver metastasis group were statistically higher than those of cases without liver metastasis. 4) The quantity of expression of sLeA 440.3 channels in liver metastasis group was statistically higher than that of cases without liver metastasis. 5) There was no significant correlation between the expression of sLeA and sLeX and their serum values.

Conclusions: The significant differences in expression of sialyl Lewis antigen on cancer cells may reflect their ability to regulate their own movement and expression of receptor adhesion molecules, especially the selectin family. Therefore, it may be easier for the cancer cell to adhere to sinusoidal cells and thereby establish liver metastasis. However, it still remains unclear what is being released that causes the increase in expression of sialyl Lewis antigen on cancer cells.

P0864 HISTORY OF GASTRIC CANCER IN THE SIBLINGS WHOSE PATIENTS WITH STOMACH CANCER

T. Bakır¹, M. Ugur², M. Meral², F.F. Soysal², C. Siviloglu³, S. Erkul³.
¹Gastroenterologist; ²Units of Surgery; ³Pathology, Numune; SSK Hospital, Trabzon, Turkey

Background: Although environmental factors epidemiologically related to stomach cancer still maintain a strong importance to the pathogenesis of this malignancy, a close relationship has also been reported between family history and the risk of gastric carcinoma.

Aim: A retrospective study was applied to evaluate the frequency of stomach cancer in the siblings.

Method: In the East-North Region of Turkey, 1100 gastric cancer patients having the completed family history of his/her compared with 1561 consecutive patients having non-malignant disease aged over 30 years old in terms of gastric cancer history of their siblings. History of gastric cancer was supported by hospital and/or pathological records.

Results: Positive history of stomach cancer in the siblings was shown in Table.

Siblings	Stomach Ca group	Control group	p		Value
	n	%	n	%	
Gastric cancer (+)	144	13.09	15	0.96	0.0000

Occurrence of cancer between the index case and the sibling ranged from 1 day to 24 years. In the two siblings with stomach cancer, both were men in 58, both were women in 24, one of them was man and the other was women in 44. Two or more siblings of 18 index patients suffered from stomach cancer. It was reported in three of thirteen, four of three, five of one and six of one within these 18 patients.

Conclusions: Despite of the fact that environmental factors cannot be ruled out on the account of siblings' sharing the same environment and diet for a certain time, demonstrations of high frequency of stomach cancer in the siblings suggest that familial factors have an important pathogenetic role in the development of gastric cancer. That's why, an appropriate screening program should be carried out in the siblings whose patients with gastric cancer.

P0865 SERUM SOLUBLE E-CADHERIN IS A GOOD PROGNOSTIC MARKER IN GASTRIC CANCER

O.O.A. Chan, K.M. Chu, C.M. Lam, E. Kwok, S.K. Lam. *Departments of Medicine and Surgery, The University of Hong Kong, Queen Mary Hospital, Hong Kong, China*

Background: Serum soluble E-cadherin is a degradation product of the cellular E-cadherin molecule, which is a member of the adhesion molecule family. Recently, soluble E-cadherin was found to be elevated in 67% of

patients with gastric cancer. The **aim** of the present study was to investigate the role of E-cadherin as a diagnostic and prognostic marker in patients with gastric cancer.

Materials and Methods: From 1/1997 to 9/1998, 127 patients with histologically proven gastric cancers were recruited with 40 healthy volunteer as controls. Nine patients were excluded from the present analysis because 2 of them were non-Chinese, 1 had serum collection after tumour debulking, 1 had another synchronous tumour, and 5 had coincidental liver cirrhosis. Sera were collected before any surgical or medical therapy and stored at -70°C . Soluble E-cadherin were measured with a commercially available sandwich ELISA kit based on monoclonal antibody (Zymed).

Results: The soluble E-cadherin concentration of patients was higher than normal control (9,344 vs. 5,616 ng/ml) ($p < 0.0001$). The concentration was also higher in patients receiving palliative operation than patients with curative resection (11,883 vs. 6,827 ng/ml) ($p < 0.008$). Further, the concentration in patients of stage III & IV disease was higher than patients of stage I & II (10,138 vs. 6,847 ng/ml) ($p < 0.03$). The soluble E-cadherin concentration also correlated with the size of the tumour ($p < 0.008$).

Conclusion: Serum soluble E-cadherin is a good prognostic marker in gastric cancer.

P0866 THE VITAMIN C CONCENTRATION IN GASTRIC JUICE IN PATIENTS WITH PRECANCEROUS LESIONS OF THE STOMACH AND GASTRIC CANCER

E. Dąbrowska-Ufniarz, J. Dzieńszewski, M. Jarosz, M. Wartanowicz, Ś. Ziemiański. *Department of Gastroenterology, National Food and Nutrition Institute, Warsaw, Poland*

Background: In previous studies we and others have shown that patient with gastritis and metaplasia have lower gastric juice vitamin C level in comparison to normal subjects. It is likely to be an important factor in increasing the risk of gastric cancer.

Aims: To elucidate what are the concentrations of vitamin C in gastric juice in patients with gastric cancer in comparison to patients with metaplasia.

Methods: In patients aged 20 to 65 years with *H. pylori* infection and chronic gastritis, metaplasia and gastric cancer the concentration of vitamin C was determined by spectrophotometry of gastric juice during gastroscopy. On the basis of the results of histological examination the following four groups were isolated. **Group I** (control) – 12 patients with normal gastric mucosa, **group II** – 15 patients with chronic gastritis, **group III** – 17 patients with metaplasia and **group IV** – 16 patients with gastric cancer. *H. pylori* infection was confirmed by the urease test and histological examination (Giemsa staining) in all patients.

Results: In controls (group I) the mean concentration of vitamin C in gastric juice was 18.2 $\mu\text{g/ml}$ (5.7–31.2 $\mu\text{g/ml}$), in group II (with chronic gastritis) – 6.9 $\mu\text{g/ml}$ (2.9–13.1 $\mu\text{g/ml}$), in group III (with metaplasia) – 3.9 $\mu\text{g/ml}$ (2.6–10.1 $\mu\text{g/ml}$) and group IV (with gastric cancer) – 3.2 $\mu\text{g/ml}$ (1.7–9.2 $\mu\text{g/ml}$). Statistically significant differences of vit. C concentration ($p < 0.05$) were found among group I and group II, III and IV and among groups II and III and IV.

Conclusions: There are not differences of vitamin C concentration in gastric juice between patients with metaplasia and patients with gastric cancer. This points out that low levels of this vitamin in gastric juice might play the role in the earlier stages of carcinogenesis.

P0868 THE CULTURE OF LACTOBACILLI SPECIES IN GASTRIC CARCINOMA

P.J. Roberts, C. Laughton, A. Whitehead, J.E. Foweraker, R.J. Dickinson. *Dept. of Gastroenterology & Histopathology, Hinchingsbrooke Hospital & Dept. Microbiology, Papworth Hospital, Huntingdon, Cambs, United Kingdom*

Background: Filamentous organisms have been reported in biopsies from both benign and malignant gastric ulcers but these have not been characterised and their significance is unknown. In a preliminary study of samples obtained at laparotomy we identified these organisms as *Lactobacilli sp.* which are commensals in upper GI tract.

Aims: To prospectively seek evidence of lactobacilli *sp.* infection of benign and malignant gastric ulcers in patients undergoing routine gastroscopy.

Methods: Gastric mucosal biopsies were obtained from 22 patients attending for gastroscopy at our unit. Histology revealed: adenocarcinoma ($n = 6$), gastric lymphoma ($n = 1$) benign gastric ulcer ($n = 6$) and normal mucosa ($n = 9$). The biopsies were immediately placed into 5 mls of specific culture medium and incubated for 48 hours when any probable