

(typical food derived from corn), processed meats, salty foods and chili. *Helicobacter pylori* was found in 30.7% of the samples.

Conclusion: Statistically significant association was found between blood group A and risk for developing gastric cancer, and have first-degree relatives with other different from gastric cancer. The age <50 ages was associated with reduction in the risk of cancer.

6538

POSTER

Is minimally invasive oesophagectomy for cancer decreasing pulmonary complications? – results from a case-control study

C. Mariette¹, N. Briez¹, G. Piessen¹, A. Claret¹, J.P. Triboulet¹. ¹University Hospital C. Huriez, Digestive and Oncological Surgery, Lille, France

Background: Morbidity after oesophagectomy for cancer remains high, especially due to pulmonary complications. Rapid development of minimally invasive surgery is related to less morbidity because of its less aggressive approach. The aim of our study was to compare 30-day pulmonary morbidity of oesophageal cancer patients who underwent surgical resection by open standard technique (including laparotomy and right thoracotomy = S group) versus minimally invasive procedure (including abdominal laparoscopy and open right thoracotomy = MI group).

Methods: Between January 2002 and June 2008, 331 oesophageal resections were performed for cancer. The laparoscopic approach for gastropasty achievement has been progressively introduced since 2005 for unselected patients. We carried out a prospective case control study among patients who benefited from the mini-invasive laparoscopic procedure (MI) and control patients with the standard technique (S). Sixty seven patients from the MI group were matched according to age, gender, location and tumoral status, physical status score, histological type, weight loss and neoadjuvant chemoradiotherapy to patients from the S group (n = 183).

Results: The two groups were similar in terms of the previous matching criteria. Global post-operative mortality and morbidity rates were 2.4% and 41.2% respectively. Conversion rate was 1.6% (n = 4). Pulmonary complications occurred significantly less frequently in the MI group (16.4% vs 34.4%, p = 0.006) and were of lesser gravity (14.9% of major pulmonary complications in the MI group vs 30.0% p = 0.016). There was no difference concerning mortality (1.5% vs 2.7%), overall morbidity (38.8% vs 42.0%), anastomotic leak (5.9% vs 3.8%), re-operation (6.0% vs 8.7%), gastropasty distention (5.9% vs 2.2%) and septic complications (13.4% vs 18.6%).

Conclusion: This is to our knowledge, the most important prospective study showing a decrease of both incidence and gravity of pulmonary complications by using the mini-invasive surgical approach in the oesophageal cancer treatment. Further long term oncological results should still be evaluated. A french multi-centric randomized trial is beginning from this perspective.

6539

POSTER

The difference in standardized uptake value on 18F-FDG-PET before and after pre-operative chemotherapy is a prognostic factor for recurrence and survival in patients with gastroesophageal cancer

F. Chionh¹, D. Handolias², A. Poon³, V. GebSKI⁴, S. Dayan⁵, A. Aly⁶, N. Tebbutt¹. ¹Austin Hospital, Medical Oncology Unit, Victoria, Australia; ²Peter MacCallum Cancer Centre, Department of Haematology and Medical Oncology, Victoria, Australia; ³Austin Hospital, Centre for PET, Victoria, Australia; ⁴University of Sydney, NHMRC Clinical Trials Centre, New South Wales, Australia; ⁵Austin Hospital, Department of Anatomical Pathology, Victoria, Australia; ⁶Austin Hospital, Department of Surgery, Victoria, Australia

Background: Peri-operative (pre- and post-operative) chemotherapy can improve survival in patients with operable gastroesophageal cancer. ¹⁸F-FDG-PET has an established role in pre-operative staging of these cancers, however its utility in predicting response and prognosis is less well-defined. We studied associations between (i) baseline standardized uptake value (SUVmax) on ¹⁸F-FDG-PET before pre-operative chemotherapy and (ii) the difference in SUVmax on ¹⁸F-FDG-PET before and after pre-operative chemotherapy and the endpoints of pathological response, disease-free survival and overall survival (OS) in patients with gastroesophageal cancer.

Materials and Methods: We used the Austin Hospital Centre for PET database to identify patients with ¹⁸F-FDG-PET scans performed both before and after pre-operative chemotherapy between March 2003 and September 2008. Information on patient demographics and outcomes were obtained from medical records. A pathologist determined histopathological features including tumour site, histology subtype, grade, pathological T and N stage, LVI, R0/R1 resection status, and tumour regression grade. A nuclear medicine physician determined SUVmax of the primary tumour before and after pre-operative chemotherapy.

Potential prognostic factors for recurrence and death and were evaluated using univariate and multivariate Cox regression analyses. The association between change in SUVmax and pathological response was tested using a chi-squared test.

Results: 45 patients were included, median age 62 years (range 42–80). The median follow-up time was 35.9 months.

There was no association between baseline SUVmax before pre-operative chemotherapy and the risk of death or recurrence. Those with $\geq 35\%$ decrease in SUVmax after pre-operative chemotherapy had a 62% reduction in risk of death (HR 0.38, 95% CI 0.17–0.83, p = 0.015) and a 65% reduction in risk of recurrence (HR 0.35, 95% CI 0.16–0.75, p = 0.007) compared to those with <35% decrease in SUVmax. The median OS in those with $\geq 35\%$ and <35% decrease in SUVmax was 34.7 months and 16.1 months, respectively (log rank test p = 0.012). Change in SUVmax was not associated with pathological response (p = 0.24).

Conclusions: Metabolic response on ¹⁸F-FDG-PET after pre-operative chemotherapy was associated with a reduction in the risk of both recurrence and death in this study. This suggests a role for the use of ¹⁸F-FDG-PET scans before and after pre-operative chemotherapy to predict prognosis.

6540

POSTER

Survival of complete responder patients treated for oesophageal cancer is better after chemoradiotherapy followed by surgery than chemioradiotherapy alone – Case control study

C. Mariette¹, M. Messager¹, G. Millet¹, N. Briez¹, G. Piessen¹, J.P. Triboulet¹. ¹University Hospital C Huriez, Digestive and Oncological Surgery, Lille, France

Background: Exclusive chemoradiotherapy and chemoradiotherapy (CRT) followed by surgery are two optional strategies for curative treatment of oesophageal cancer. The aim of this study was to compare survival in case of complete response after exclusive CRT versus after neoadjuvant CRT.

Methods: Between 1995 and 2007, 1176 patients were treated for oesophageal cancer in our center. A case-control study was achieved among complete morphological responders after exclusive CRT (ECRT group) and complete histological responders after neoadjuvant CRT followed by surgery (control group, NCRT). Fifty five patients from the ECRT group were matched according to age, gender, tumoural location, TNM stage, ASA score, histological type and weight loss to 111 patients from the NCRT group. Response to CRT was assessed with endoscopy + biopsy and tomodesitometry in the ECRT group, and with histology of the primary tumour in the NCRT group.

Results: The two groups, ECRT and NCRT respectively, were similar in terms of patients medium age (59 vs 57 years), squamous cell carcinoma rate (87% vs 91%), ASA score 2 or 3 (65% vs 76%), infracardinal location (71% vs 77%) and locally advanced disease (64% vs 60%). After a median follow-up of 29.5 months, there were significant differences regarding median time to recurrence (10 vs 18 months, p = 0.012), incidence of overall (67.2% vs 34.4%) and loco-regional recurrences (33% vs 15%, p < 0.001). Median and 5-year survival rates were 25 vs 61 months and 19% vs 50% (p = 0.001), respectively.

Conclusion: Survival in the situation of complete response is far better after CRT followed by surgery than after CRT alone. It is then convincing to promote surgical resection for these selected patients regarding to better locoregional control, and above all because evaluation of complete morphological response appears to be inefficient.

6541

POSTER

Cancer cells on intraoperative peritoneal cytology for gastric cancer

T. Nakamura¹, N. Haga¹, Y. Fukai¹, T. Akao¹, H. Ojima¹. ¹Gunma Prefectural Cancer Center, Surgical Oncology, Ota Gunma, Japan

Background: Detection of cancer cells on intraoperative peritoneal cytology (CY1) is one of the prognostic factors for gastric cancer and is classified in stage 4 (the poorest prognosis) in Japanese Classification of Gastric Carcinoma. Strategy for CY1 is the issue to debate and depends on the institution. We analyze characteristics of CY1 gastric cancer and assess the strategy.

Materials and Methods: We reviewed all patients whose celiotomy for gastric cancer had detected CY1 from January 2000 to March 2008 in Gunma Prefectural Cancer Center in Japan. We evaluated the clinical course of CY1 patients who had been staged preoperatively in M0 (no distant metastasis).

Results: Forty three patients were classified in CY1 among 1271 celiotomies for gastric cancer. Thirty nine (3.1%, male 27, female 12) were staged in M0 and other four in M1 pre-operatively. Although Borrmann type, lymph node status (N), and distant metastasis (M) have no influence to the