prognosis. If factors that allow prediction of the effect of CRT are found, a more effective therapeutic strategy can be designed. The aim of this study was to identify biological markers predicting sensitivity to CRT of esophageal carcinoma.
Methods: 91 patients with esophageal carcinoma treated with CRT were enrolled. The regimen comprised protracted 5-?uorouracil infusion and a two-hour infusion of cisplatinum combined with radiotherapy which 59.6 Gy was administered using conformal radiotherapy or intensity modulated radiotherapy from a 15-MV linear accelerator in 34 fractions. The concentration of serum tumor markers cytokeratin 19 fragment antigen 21−1, carcino-embryonic antigen, neuronspecific enolase were measured in venous blood obtained before treatment from 91 patients. The cut-off value of CYFRA21−1, CEA and NSE was defined as 3.4 ng/ml, 3.3 ng/ml and 17 ng/ml respectively. The response to CRT was evaluated by WHO criteria **in solid tumors**.
Results: The complete response rate of the primary tumor estimated by CT was 16.2% (6/37) in patients with CYFRA21−1 positive group, 15.38% (4/26) in patients with CEA positive group, and 16.6% (3/18) in the NSE positive group. The complete response (CR) rate between CYFRA21−1 and CEA positive and negative groups were significantly different ($P = 0.001$, 0.002 respectively). However, NSE did not show a significant correlation with the response of the primary lesion to CRT ($P = 0.306$).
Conclusion: CYFRA21−1 and CEA may be helpful in predicting the chemoradiosensitivity to CRT of esophageal carcinoma, although the results should be confirmed in larger, more homogeneous studies.

6535 POSTER

A phase II study of biweekly chemotherapy with irinotecan, 5-fluorouracil, and leucovorin (FOLFIRI) in patients with advanced gastric cancer after failure of prior chemotherapy including taxane, fluoropyrimidine, and platinum

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Background: Irinotecan is one of the chemotherapeutic agents proven active in advanced gastric cancer (AGC) and also suggested synergistic with 5-fluorouracil (5-FU) in preclinical studies. We performed this study to evaluate the efficacy and toxicities of a combination of irinotecan, 5-FU, and leucovorin (LV) continuous infusion regimen (FOLFIRI) as a salvage treatment in patients with AGC after failure of prior chemotherapy including taxane, fluoropyrimidine, and platinum.
Materials and Methods: A total of 43 patients were enrolled in this study between October 2004 and April 2008. Treatment comprised irinotecan (150 mg/m^2 on day 1) as 2-hour infusion followed by LV 100 mg/m^2, and 400 mg/m^2 of bolus plus 2400 mg/m^2 of continuous infusional 5-FU over 46 hours. Cycles were repeated every 2 weeks.
Results: Among a total of 43 patients, 8 (18.6%; 95%CI, 6−31%) achieved partial response, and 18 (41.9%) showed stable disease. With a median follow-up of 11.9 months (range, 7−20.4 months) in surviving patients, the median progression free survival (PFS) was 4.5 months (95%CI, 3.1−5.9 months) and the median overall survival (OS) was 10.3 months (95%CI, 8.5−12.1 months). The major factor determining PFS and OS by FOLFIRI was time to progression after previous chemotherapy (TTP). The median PFS was 2.4 months (TTP <2 months) vs. 7.0 months (TTP $\geqslant$2 months, P = 0.001). The median OS was 8.6 months (TTP <2 months) vs. 18.5 months (TTP $\geqslant$2 months, P = 0.002). Grade 3/4 neutropenia was observed in 61.3%, however, neutropenic fever was rare (4.5%). Grade 3/4 nonhaematologic toxicities were asthenia (9.1%), anorexia (6.8%), nausea (4.5%), and vomiting (4.5%). There was no related mortality.
Conclusions: FOLFIRI was active and tolerable as a salvage regimen after failure of previous chemotherapy with taxane, fluoropyrimidines, and platinum.

6536 POSTER

Feasibility of adjuvant S-1 plus docetaxel against stage II-III gastric cancer following R0 resection in gastrectomy

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Background: The present standard treatment in Japan for patients (pts) with stage II-III gastric cancer (GC) following R0 gastrectomy is adjuvant S-1 chemotherapy. In advanced GC pts, several studies of S-1 plus docetaxel have shown a good response rate with a longer median overall survival (OS). Here, we evaluated the feasibility and safety of adjuvant S-1 plus docetaxel for stage III GC pts following R0 resection.
Materials and Methods: This study was conducted by two stage design (UMIN000000857; 2007/10/19). Patients were administered S-1 (80 mg/m^2/day) orally for 2 consecutive weeks plus docetaxel (40 mg/m^2 as the first stage or 30 mg/m^2 as the second stage) intravenously on day 1, and repeated every 3 weeks. Treatment was repeated for 4 cycles followed by S-1 monotherapy until 1 year after gastrectomy. Feasibility in the first ten patients was evaluated at the end of 2 cycles. Total 20 patients could be enrolled, if the treatment completion could be performed in more than 60% (6/10) of patients. Study would go forward the second stage, if that could be seen in less than 50% (5/10) of those. The patient inclusion criteria were as follows: with curatively resected pathological stage II-III GC receiving D2 dissection; age, 20−80 years; performance status $\leqslant$1; no previous adjuvant treatment; adequate organ function; provided informed consent. The study endpoints were as follows; primary endpoint: feasibility of the 4 cycles of S-1 plus docetaxel; secondary endpoints: safety, progression-free survival, and OS.
Results: Between 6/2007 and 4/2008, 23 pts (16 males and 7 females; median age, 62 years) were enrolled. Pathological stages included Stage II (n = 9), IIIA (n = 9), IIIB (n = 4), and IV (n = 1). This study was finished in the first stage with a feasibility of more than 60% of first ten patients at 2 cycles. Of 22 pts, 15 were administered the planned 4 treatment cycles, with a feasibility of 68.2%. Reasons for discontinuation were recurrent cancer (n = 0) and adverse events (n = 7). Of the 22 pts, 2 (9%) developed grade 3/4 neutropenia, but there was no grade 3 febrile neutropenia. Grade 3 or higher non-hematological toxicities included diarrhea (9%), anorexia (5%), nausea (5%), syndrome of inappropriate antidiuretic hormone (5%), and hand-foot syndrome (5%). Treatment-related deaths did not occur.
Conclusions: Adjuvant S-1 plus docetaxel showed a good profile of adverse events and was well tolerated. This regimen shows great potential for future phase III trials for identifying the best adjuvant chemotherapy for advanced GC pts following R0 resection in gastrectomy.

6537 POSTER

Blood group A and risk of gastric cancer in Colombia

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Background: There is possibility of increased risk among group blood A and gastric cancer. Our objetive was to detect association between blood group A and gastric cancer
Materials and Methods: Design: Case-control study. Place: Oncology Unit, Universidad Industrial de Santander UIS, Colombia.
Fulfilled criteria for inclusion 153/278 medical records with histopathological diagnosis of gastric cancer who sought medical since January 2001 to December 2005. The controls were inpatients in Internal Medicine for medical reasons other than gastric with normal upper gastrointestinal endoscopy. Date were obtained through systematic review of medical records and telephone contac. Data were processed in software stata 9.0.
Results: The prevalence of blood groups among 153 patients 56.74% for group 0, 32.17% for group A, 10.22% for group B, and 0.87% for group AB. We found statiscally significant association between gastric cancer and blood group A, OR = 2.22 (95% CI: 1.38−3.57); was also associate, gastric cancer with the prssence of first-dgree relatives with no gastric cancer OR = 1.91 (95% CI: 1.05−3.46). The logistic regression analysis showed aged <50 aged years old as a protective factor OR = 0.44 (95% CI: 0.26−0.77). There was no association between eating habits and comsuption of fruits, cereals, vegetables, coffee, arepa santandereana

(typical food derived from corn), processed meats, salty foods and chili. *Helicobacter pylori* was found in 30.7% of the samples.
Conclusion: Statiscally significant association was found beteween blood group A and risk for developing gastric cancer, and have firts-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 œsophagectomy for cancer decreasing pulmonary complications? – results from a case-control study

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Background: Morbidity after œsophagectomy 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 œsophageal resections were performed for cancer. The laparoscopic approach for gastroplasty 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 (388% vs 42.0%), anastomotic leak (5.9% vs 3.8%), re-operation (6.0% vs 8.7%), gastroplasty 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

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Background: Peri-operative (pre- and post-operative) chemotherapy can improve survival in patients with operable gastroesophageal cancer. ^{18}F-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 ^{18}F-FDG-PET before pre-operative chemotherapy and (ii) the difference in SUVmax on ^{18}F-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 ^{18}F-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 ⩾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 ⩾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 ^{18}F-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 ^{18}F-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

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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 tomodensitometry 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%), infracarinal 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

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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