

survival (OS) was 12.0 months (95% CI, 8.1–15.9 months). Among the variant alleles, patient with CYP2A6*4 had significantly inferior TTP than those without CYP2A6*4 (median TTP, 3.7 vs. 4.8 months; $P=0.04$) and tend to have inferior OS (median OS, 9.7 vs. 15.0 months; $P=0.09$). Univariate analyses for age, sex, ECOG performance status (PS), tumor histology, and number of metastatic organ sites showed that ECOG PS was significantly associated with TTP (median TTP, 5.3 [PS 0/1] vs. 2.4 months [PS 2/3]; $P<0.001$), as well as CYP2A6*4. In multivariate analysis, after adjusting for PS, the CYP2A6*4 allele remained a statistically significant predictor of TTP; patients with CYP2A6*4 showed a 3.63-fold (95% CI, 1.54–8.55; $P=0.003$) increased risk of progression compared to those without CYP2A6*4.

Conclusion: Our findings showed CYP2A6*4 allele correlated with decreased treatment efficacy of S-1 plus cisplatin in previously untreated MGC patients.

6565

POSTER

The role of PET-TC in predicting the pCR in locally-advanced esophageal cancer (LAEC) after a preoperative CT-RT treatment: data from B152 trial

L. Vecchione¹, F. De Vita¹, A. Farella², E. Martinelli³, M. Orditura³, R. Innocente⁴, C. Pinto⁵, V. Chiarion Sileni⁶, F. Ciardiello¹, T. Troiani¹.

¹Second University of Naples Naples Italy, Department of Clinical and Experimental Medicine and Surgery, Naples, Italy; ²Federico II Naples, Department of Radiotherapy and Radiodiagnostic, Naples, Italy; ³University of Naples Naples Italy, Department of Clinical and Experimental Medicine and Surgery, Naples, Italy; ⁴CRO - Aviano, Department of radiotherapy, Aviano, Italy; ⁵Azienda Ospedaliera Bologna, Department of Medical Oncology, Bologna, Italy; ⁶Azienda Ospedaliera Padova, Department of Medical Oncology, Padova, Italy

Background: the improvement of overall survival in pts with LAEC after a preoperative CRT treatment is correlated to the complete pathologic response (pCR). We aimed to examine the ability of PET-TC in predicting the complete pathologic response in LAEC pts enrolled in the B152 trial.

Methods: Eligibility criteria: resectable, locally advanced (uT3-T4 N0, any uT N1) squamous cell carcinoma (SCC) or adenocarcinoma (AC) of the esophagus; age 18–70y; PS<2; normal organ functions. All pts received induction treatment with 8 administration of Cetuximab (C) (400 mg/m² as starting dose followed by 250 mg/m²/weekly) and 4 cycles of FOLFOX-4 every two weeks. In case of response pts underwent daily RT (180cGy fractions to 5040 cGy) with concurrent weekly C. At the end of treatment, pts without PD had esophagectomy. PET-TC was performed before starting treatment (time 0), after chemotherapy (time 1) and after radiotherapy (time 2). The purpose was to evaluate if there was a correlation between the metabolic response recorded by PET-TC on time 2 and the histopathological response on the surgical specimen.

Results: Up to April 2009, 42 pts, 32 men and 10 women, were enrolled from 4 institutions; among these pts, 6 were not evaluable (5 are still on therapy and 1 refused surgery). Among 36 pts evaluable, 22 pts were considered positive for residual disease at PET-TC evaluation and pathologic examination, 2 pts presented a pRC although the PET-TC was positive, 5 pts resulted false negative (PET-TC negative but surgical specimen positive for disease), 7 pts were true negative (PET-TC negative with pRC obtained). Sensitivity to detect response was 81%, with a corresponding specificity of 77%. The positive and negative predictive values were 92% and 58%.

Conclusions: FDG-PET could be a valuable tool for the non invasive assessment of histopathologic tumor response after neoadjuvant radiotherapy and chemotherapy.

Total of pts 36 (100%)	Residual disease pts (%)	pRC pts (%)
PET positive	22 (61%)	2 (6%)
PET negative	5 (14%)	7 (19%)

6566

POSTER

A multicenter phase II study of induction CT with Folfex-4 and Cetuximab followed by RT and Cetuximab in locally advanced esophageal cancer (LAEC)

F. De Vita¹, L. Vecchione¹, M. Orditura¹, R. Innocente², A. Farella³, F. Morgillo¹, C. Pinto⁴, V. Chiarion Sileni⁵, A. Ruol⁶, F. Ciardiello⁷.

¹Second University Of Naples Naples Italy, Department Of Clinical And Experimental Medicine And Surgery, Naples, Italy; ²Cro – Aviano, Department Of Radiotherapy, Aviano, Italy; ³Federico II Naples, Department Of Radiotherapy And Radiodiagnostic, Naples, Italy; ⁴Azienda Ospedaliera Bologna, Department Of Medical Oncology, Bologna, Italy; ⁵Azienda Ospedaliera Padova, Department Of Medical Oncology, Padova, Italy; ⁶University Of padova, Department Of Medical Oncology, Padova, Italy; ⁷Second University Of Naples Naples Italy, Department Of Clinical And Experimental Medicine And Surgery, Naples, Italy

Background: Preoperative CRT improves the survival of pts with EC when compared with surgery alone. Epidermal growth factor receptor (EGFR) is overexpressed in 30–90% of EC and is associated with poor prognosis, providing the rationale for using the anti-EGFR monoclonal antibody Cetuximab (C). The purpose of the study was to investigate the efficacy, toxicity and feasibility of C with FOLFOX-4 regimen as induction CT followed by C and RT in pts with LAEC in a multicenter setting.

Methods: Eligibility criteria: resectable, locally advanced (uT3 or uN1, T4 if deemed resectable) squamous cell carcinoma (SCC) or adenocarcinoma (AC) of the esophagus; staged by EUS, CT and PET scan; age 18–70y; PS<2; normal organ functions. All pts received induction treatment with C at a starting dose of 400 mg/m² and further weekly infusion at a maintenance dose of 250 mg/m² and 4 cycles of FOLFOX-4 every two weeks. Post-induction EUS and CT scans were performed, while a PET scan was repeated early before second cycle of CT: pts without PD were given daily RT (180cGy fractions to 5040cGy) with concurrent weekly C. Post RT, EUS plus biopsies, CT scan and PET were performed. At wk 18, pts without PD had esophagectomy. A Simons two stage design was used. Primary endpoint was histopathological response rate.

Results: Up to January 2009, 42 pts, 32 men, were enrolled from 4 institutions; median age 59y (35–70y); AC 12; SCC 30; stage II 15, stage III 27 pts. At this time 39/42 pts were evaluable. The most frequent grade 3/4 toxicity of chemoradiotherapy were skin (32%), neutropenia (29%) and esophagitis (9%); 10 pts had no resection (9 progressive disease, 1 patient's refusal). Of 23 operated pts, 18 pts (77%) had RO-resection, 5 pts had palliative surgery. 2 pts died due to complications after surgery (1 after >30 days). The pathological response rate was 68%, with a complete histopathological remission recorded in 7 pts (38%); 18 pts (42%) are still alive without residual or recurrent disease.

Conclusions: These results suggest the feasibility of incorporating Cetuximab into a preoperative regimen for LAEC pts and an encouraging antineoplastic activity with 68% histopathological responders.

6567

POSTER

Preoperative radiochemotherapy with cisplatin plus infusional high-dose 5-fluorouracil/leucovorin (LV5FU2) in locally-advanced esophageal carcinoma of UICC stages II and III – ongoing study

V. Stankovic¹, L.J. Radošević-Jelic¹, T. Josifovski¹, M. Micev², I. Popov³.

¹Institute for Oncology and Radiology of Serbia, Radiotherapy, Belgrade, Serbia; ²Institute for Digestive disease First Surgery Clinic Belgrade, Pathology, Belgrade, Serbia; ³Institute for Oncology and Radiology of Serbia, Chemotherapy, Belgrade, Serbia

Background: Esophageal squamous cell carcinoma is a highly aggressive malignancy with a poor prognosis. Surgical resection has been the standard treatment for this cancer. Radical resection is limited because of the advanced stage of the disease at the time of diagnosis. Neoadjuvant radiochemotherapy has been proposed in this study on the basis that local down staging could increase the resectability rate in locally advanced carcinoma of the esophagus. Long term survival may be possible if the carcinoma of the esophagus respond to radiochemotherapy (CRT) and radical surgery is performed.

Material and Methods: This study is a part of Ministry of Science project number 145059 started in december 2006. Since then, 46 patients have been enrolled in this study: 6 females (13.04%) and 40 males (86.96%). Mean age was 56y (range 37–74 y) According to UICC staging system 11 pts have been in clinical stage II (T3N0M0) and 35 pts in clinical stage III (T3N1M0, T4N0–1M0). Tumor location was as follows: cervical oesophagus 2 pts, upper third of thoracic oesophagus 21 pts, medium third 17 pts and lower third 6 pts. Preoperative radiotherapy with tumor dose of 45–50.4 Gy in 24–28 fractions have been applied with concomitant chemotherapy with Cisplatin plus infusion high/dose 5/fluorouracil/leucovorin (LV5FU2).

During a period of 4–6 weeks after CRT, clinical response rate (cRR) was evaluated by control examinations and patients were sent to the Institute of digestive disease at department for surgery if their tumor were achieved complete or partial regression.

Results: All patients finished radiotherapy course. In 22 pts (47.38%) chemotherapy was interrupted due to toxicity: in 10 pts after 2 cycles of chemotherapy and in 12 pts after 3 cycles. Toxicity grade 1 and 2 had 24 pts (52.17%). Grade 3 and 4 toxicity was noted: cardiotoxicity in 3 pts, leucopenia gr 4 in 5 pts, neutropenia gr 3 in 6 pts, neutropenia gr 4 in 8 pts. cRR was achieved in 27/46 patients (58.7%): complete response in 3 pts (6.52%), partial response in 24 pts (52.17%), stable disease in 13 pts (28.26%) and early progression in 6 pts (13.04%).

According to histopathological assessment by Mandard, complete tumor regression TRG1 was noted in 5 pts (41.67%), partial tumor regression TRG2 in 1 pt (8.46%), TRG3 in 3 pts (25%), minimal tumor regression TRG4 in 3 pts (25%).

Conclusion: Our preliminary results show promising treatment results on neoadjuvant CRT with Cisplatin and LV5FU2. We have to enroll more patients, to reach statistical power of more than 80%. Determination of EGFR and other potential predictive factors are ongoing.

6568

POSTER

Role of sequential chemoradiotherapy based on ECF as adjuvant treatment in resected gastric cancer patients

R.E. Pacios Blanco¹, B. Ríos Pozo¹, I. Castillo Pérez¹, J.M. Jurado¹, R. Guerrero¹, J.L. García-Puche¹. ¹Hospital Clínico San Cecilio, Oncology Department, Granada, Spain

Background: Surgery has been established as standard treatment in locally advanced resectable gastric cancer patients. Due to the high number of local and distant relapses, consolidation treatment with radiotherapy and/or chemotherapy is necessary in an attempt to eradicate microscopic disease. We conducted an evaluation of safety and efficacy of adjuvant treatment with chemotherapy based on ECF and sequential radiotherapy.

Methods: A retrospective analysis was performed on 35 advanced gastric cancer patients treated between September 2001 and April 2007. At the time of diagnosis, the stages were distributed as follows: 6 E-II; 15 E-IIIa; 7 E-IIIb; 7 E-IV. All patients were histologically proved gastric adenocarcinoma. Treatment pattern began with surgery in all patients, 24 total gastrectomy and 11 subtotal gastrectomy, always accompanied by lymphadenectomy. Then chemotherapy based on six postoperative cycles of intravenous epirubicin (50 mg per square meter of body-surface area) and cisplatin (60 mg per square meter) on day 1; and a continuous intravenous infusion of fluorouracil (200 mg per square meter per day) for 21 days. Finally all patients received external radiotherapy administered on gastric region and adjacent lymph nodes as follows: 45 Gy, 1.8 Gy/fraction, 5 fraction/week, 3D planning.

Results: Of the 35 patients assigned to this protocol, 33 completed treatment (94.3%). With a median follow-up of 2 years, the overall-survival rate was 56%, and relapse-free survival rate was 51%. Toxicity due to chemotherapy was gastrointestinal and hematological predominated; one patient did not finish treatment due to severe neutropenia (G III-IV). In terms of radiotherapy, two patients left treatment because of poor gastrointestinal tolerance. One patient suffered delay in treatment due to postoperative complications.

Conclusions: Adjuvant chemotherapy based on ECF and sequential radiotherapy in resected gastric cancer patients has evidenced an important impact in terms of local control and overall survival. This pattern was effective and well tolerated in terms of acute and chronic toxicity. However, these findings require further prospective investigation.

6569

POSTER

Role of FDG-PET/CT in predicting pathological response and survival in locally advanced esophageal cancer patients (p) treated with neoadjuvant chemoradiotherapy

P. Celiz¹, M. Galan², J.J. Robles³, J.J. Sanchez⁴, C. Gamez³, J.M. Liberal², A.P. Caresia³, M. Caro⁵, L. Farran², A. Font⁶. ¹Catalan Institute of Oncology Hospital Universitari Germans Trias i Pujol, Oncology Service, Badalona (Barcelona), Spain; ²Catalan Institute of Oncology Hospital Duran i Reynals, Oncology Service, Hospitalet Barcelona, Spain; ³Hospital Universitari de Bellvitge, Radiology Service, Hospitalet Barcelona, Spain; ⁴Autonomous University of Madrid, Statistics, Madrid, Spain; ⁵Catalan Institute of Oncology Hospital Germans Trias i Pujol, Radiotherapy Service, Badalona Barcelona, Spain; ⁶Catalan Institute of Oncology Hospital Germans Trias i Pujol, Oncology Service, Badalona Barcelona, Spain

Background: Preoperative chemoradiotherapy is considered standard treatment in locally advanced esophageal cancer p. However, only p with

significant histopathological response obtain a benefit from this multimodal therapy. At present, there are no reliable parameters to predict response from preoperative chemotherapy. The aim of this study was to evaluate the role of FDG-PET/CT for the assessment of pathological response and survival in p treated with neoadjuvant chemoradiotherapy.

Material and Methods: From June 2005 to October 2008, 29 p with stage II-IVa esophageal cancer were treated with concurrent chemotherapy (cisplatin, fluorouracil) plus radiotherapy (median dose, 45 Gy) followed by esophagectomy. FDG-PET/CT was performed in 26 p (89%) at baseline and 4–6 weeks (median, 29 days) after completing chemoradiotherapy. p were classified in 3 groups based on the decrease of metabolic tumor length (TL) and maximum standardized uptake value (SUV): Group 1: non-significant response or progression (TL & SUV decrease <50%); Group 2: partial response (TL & SUV decrease >50%) and Group 3: complete response.

Results: 20 p had squamous cell carcinoma and 9 had adenocarcinoma. Pretreatment clinical stage was II in 10 p, III in 17 p and IVa in 2 p. Esophagectomy was performed in 25 p (86%). 11 p (44%) had a major histopathological response (pT0–2N0M0). Median follow-up was 17 months (m) (range, 4–33). FDG-PET/CT response in 25 evaluable p: Group 1, 8 p (32%); Group 2, 11 p (44%); Group 3, 6 p (24%). FDG-PET/CT results did not correlate with histopathological response (P = 0.62). Median survival was 15 m in Group 1, 19.5 m in Group 2, and 25.5 m in Group 3 (P = 0.28).

Conclusion: Although, no relation was observed between histopathological response and FDG-PET/CT response, longer survival was attained by p with FDG-PET/CT response. Further investigation with a larger number of p and a longer follow-up is warranted to clarify the role of FDG-PET/CT as a predictive marker of pathologic response and survival in esophageal cancer p treated with neoadjuvant chemoradiotherapy.

6570

POSTER

The effect of peripheral blood values before treatment on prognosis of patients with locally advanced gastric cancer

M. Aliustaoglu¹, A. Bilici², B.B.O. Ustaoglu², V. Konya³, M. Gucun³, M. Seker², M. Gumus². ¹Haydarpasa Numune Education and Research Hospital, Department of Medical Oncology, Istanbul, Turkey; ²Dr. Lutfi Kırdar Kartal Education and Research Hospital, Department of Medical Oncology, Istanbul, Turkey; ³Haydarpasa Numune Education and Research Hospital, Department of Internal Medicine, Istanbul, Turkey

Background: Gastric cancer (GC) is one of the leading cause of cancer death in the world. It is estimated that approximately 21500 new cases and 10880 deaths related with GC may occur in the United States in 2008. The chance of cure is 20–30% with surgery in Western countries. In Turkey, GC is the most common type of gastrointestinal tract tumors. Only 20–30% of patients are diagnosed at early stage. 5-years survival rate is 50% in stage I, 29% in stage II, 13% in stage III and 3% in stage IV. It suggested that hematological parameters including leukocytes may use as diagnostic and prognostic factors in various cancer types. We aimed to investigate the prognostic significance of neutrophil, lymphocyte, platelet, MPV, platelet-lymphocyte ratio (PLR) and neutrophil-lymphocyte ratio (NLR) in patients with locally advanced gastric cancer (LAGC).

Material and Methods: One hundred sixty-eight patients with LAGC who had been followed-up between 2004 and 2008 were included in present study. The results of hematological (platelet, lymphocyte, neutrophil and MPV) and biochemical (uric acid and LDH) parameters were evaluated before treatment. NLR was divided into two groups as $2.56 \leq$ and <2.57 and PLR was also divided into two groups as <160 and >160 . Platelet counts and lymphocyte counts were also divided into two groups: $<300.000/\text{mm}^3$ and $>300.000/\text{mm}^3$, and $<1500/\text{mm}^3$ and $>1500/\text{mm}^3$, respectively. Results were evaluated with Kaplan-Meier and Long-rank tests.

Results: The mean age of patients at diagnosis was 60.1 ± 12.1 and 114 of patients (67.8%) were male. For 168 patients, 48-months overall survival (OS) rate was 45.2% and the median OS was 39 months (range;33–44). In patients whose PLR was less than 160 (n = 54), the median OS was 45 months (range;38–52) and also for cases whose PRL was greater than 160 (n = 114), the median OS was 27 months (range; 22–32) (p = 0.006). While for fifty patients whose lymphocyte counts were less than 1500, the median OS was 27 months (range;21–33), in cases with high lymphocyte counts (>1500) (n = 118), it was 41 months (range;35–48) (p = 0.03). The median OS was 41 (range;34–48) and 30 (range;23–37) months in two platelets groups, respectively (p = 0.24). However, in the patients whose NLR was less than 2.56 (n = 107), median OS was better than with cases whose NLR was greater than 2.56 (42 vs. 27 months).

Conclusions: Routine peripheral blood counts could be useful prognostic factor in LAGC. Our results need to be confirmed by study including larger sample size in future.