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treatment following relapse was close to *21,000 in both arms. Total lifetime disease-related costs were *23,129 with oxaliplatin vs. *17,285 with 5-FU/LV. The resulting incremental cost-effectiveness ratio for FOLFOX4 compared to 5-FU/LV was *9,328 per LY gained, after discounting costs and outcomes at 5% per annum.

Conclusions: Adjuvant chemotherapy with FOLFOX4 has shown a significant DFS benefit over 5-FU/LV in the MOSAIC trial. We extrapolated the within-trial data to estimate a 1.34 (-0.01-2.68) year benefit in overall life expectancy in patients with stage III disease. If this benefit is confirmed, we estimate that FOLFOX4 would cost approximately *9,300 per LY gained, which compares favourably with other accepted interventions in oncology.

References

[1] De Gramont, 2005 ASCO Annual Meeting, Abstract 3501

646 POSTER

Phase I/II study of preoperative cetuximab, capecitabine and external beam radiotherapy in patients with locally advanced rectal cancer (LARC)

J. Machiels¹, J. Coche², P. Scalliet³, E. Van Cutsem⁴, S. Roels⁵, J. Canon⁶, B. Coster⁷, J. Kerger⁸, V. Remouchamps⁹, K. Haustermans⁵.

¹Université Catholique de Louvain, Oncology, Brussels, Belgium; ²Clinique Saint-Pierre, Gastroenterology, Ottignies, Belgium; ³Université Catholique de Louvain, Radiotherapy, Brussels, Belgium; ⁴University Hospital Gasthuisberg, Digestive Oncology Unit, Leuven, Belgium; ⁵University Hospital Gasthuisberg, Clinical Oncology, Leuven, Belgium; ⁶Clinique Notre-Dame, Oncology, Charleroi, Belgium; ⁷Hôpital Saint-Joseph, Radiotherapy, Gilly, Belgium; ⁸UCL-Mont-Godinne, Oncology, Yvoir, Belgium; ⁹Clinique Saint-Elisabeth, Radiotherapy, Namur, Belgium

Background: Capecitabine is rapidly replacing 5-fluorouracil as the standard agent in colorectal treatment regimens for locally advanced rectal cancer (LARC). Cetuximab is a monoclonal antibody directed against the epidermal growth factor receptor. Both agents are active in the treatment of advanced colorectal cancer and have demonstrated radiosensitising properties. The aim of this study was to establish the feasibility of a combination of weekly cetuximab and daily capecitabine with concurrent radiation for patients with LARC. Previous studies have shown that the Recommended Dose of Capecitabine in combination with radiation for LACR is 825 mg/m² twice-daily.

Material and Methods: Ten patients with LARC (T3–T4 and/or N+) received radiotherapy (1.8 Gy, 5 days a week over 5 weeks, total dose 45 Gy, 3D conformational technique) in combination with cetuximab (initial dose 400 mg/m² given one week before the beginning of radiation followed by 250 mg/m²/week for 5 weeks) and two different doses of capecitabine for the duration of radiotherapy (including weekends), according to phase I methodology (650 mg/m² twice-daily, first dose level; 825 mg/m² twice-daily, second dose level). Dose-Limiting Toxicity (DLT) was defined according to Dunst (JCO 2002).

Results: Four and six patients (ECOG 0-1; median age: 62; transrectal ultrasound staging: T3N0: 5, T3N1:3, T4N0:2) were treated at the first and second dose levels of capecitabine, respectively. No DLTs occurred at either capecitabine dose. Radiotherapy was administered as planned to all patients. Adverse event profiles were consistent with the treatments used (grade 1/2 acne-like rash in all patients and grade 1/2 NCI-CTC diarrhea in 7 patients). Grade 3 NCI toxicities were observed in 5 patients (anal pain in 4 and dermatitis in 1). No grade 4 toxicity was recorded.

Conclusions: Preoperative radiotherapy in combination with capecitabine and cetuximab is feasible and well-tolerated for LARC. The recommended Doses for phase II evaluation are Capecitabine 825 mg/m² twice-daily without interruption during the duration of radiotherapy and Cetuximab at a loading dose of 400 mg/m² followed by 250 mg/m²/week. The efficacy of this combination to downstage LARC is currently being investigated in a larger phase II study with a total planned accrual of 40 patients.

POSTER

Feasibility study of combined preoperative intensity-modulated radiation therapy (PIMRT) with concurrent capecitabine/oxaliplatin in patients with locally advanced rectal cancer (LARC)

L. Arbea Moreno¹, J. Aristu¹, M. Moreno¹, C. Garran¹, G. Nagore¹, J. Valero¹, J. Hernandez², J. Sola³, J. Rodriguez⁴, R. Martinez-Monge¹.
¹Clinica Universitaria De Navarra, Oncology, Division of Radiation Oncology, Pamplona, Spain; ²Clinica Universitaria De Navarra, Surgery, Pamplona, Spain; ³Clinica Universitaria De Navarra, Pathology, Pamplona, Spain; ⁴Clinica Universitaria De Navarra, Oncology. Division of Medical Oncology, Pamplona, Spain

Background: Preoperative 5FU-based chemoradiation is the standard of care in LARC. New chemoradiation regimens based on Capecitabine and Oxaliplatin may enhance downstaging although acute effects may also be increased. IMRT may overcome this radiosensitizing phenomenon by decreasing the size of the PTV with a resultant reduction in the volume of several OAR's.

Material and methods: Patients (pts) with LARC received PIMRT (*step and shoot*) to 47.5 Gy in 19 treatments. Dose was prescribed at the Minimum Tumor Dose of the Gross Tumour Volume (GTV). Daily fractions of 2.5 Gy, 5 days a week were delivered. Capecitabine 825 mg/m² bid was given on the radiation days while Oxaliplatin was administered at a dose of 60 mg/m² on days 1, 5 and 15. Surgery was planned 4–6 weeks later. We used the RTOG criteria to evaluate acute toxicity. Pathologic response (PR) was analysed using the TNM staging and the scale proposed by the Memorial Sloan-Kettering Cancer Center: Grade 0 (no response), Grade 1 (1–33% PR), Grade 2 (34–66%), Grade 3 (67–95%), Grade 3+ (96–99%), Grade 4 (100%) (*Ruo et al. Ann Surg 2000*).

Results: A total of 38 pts, 27 males and 11 females with a median age of 61 years, were treated between March 2003 and May 2005. All pt underwent endorectal ultrasound-based staging. Nine pts had T3N0 tumours (24%), 25 pts had T3N+ (66%), 2 pts had T4N0 (5%) and 2 pts had T4N+ (5%). Eighteen tumours (47%) were located in the distal rectum, 15 (39%) in middle rectum and 5 (13%) in the proximal third. Six pts received a lower PIMRT dose as part of an initial feasibility study. All pts except 8 (81%) completed the prescribed treatment; 6 pts did no receive the total dose of chemotherapy and 2 pts did no complete the prescribed radiation dose. Individual toxic events observed included: Diarrhea grade 1-2 (40%), Diarrhea grade 3 (8%), Tenesmus grade 1-2 (71%), Tenesmus grade 3 (13%), Dysuria grade 1-2 (16%) and Leukopenia grade 1-2 (2.5%). Overall, Grade 3 events were seen in 21% of the cases. Downstaging was observed in 20 pts (52%) with PR grade * 3+ in 45% of the specimens (Grade 4: 10%). In addition 21 of 25 initially N+ pts (84%) turned out to be pN0. The sphincter preservation rate for those pts with tumors located in the distal third of the rectum was 44%.

Conclusions: Concurrent Capecitabine/Oxaliplatin-based PIMRT (47.5 Gy/ 2.5 Gy/19 Rx) is feasible in pts with LARC. Grade 3 acute events are seen in 21% of the patients with an outstanding rate of PR grade * 3+.

648 POSTER

Acute appendicitis as a sign of a colorectal carcinoma

V.R. Patcha, G. Williams, P. Ketty, B.O. Riordan, W. Sheridan. West Wales General Hospital, General Surgery, Carmarthen, United Kingdom

Background: The concurrence of acute appendicitis and a colorectal carcinoma is well documented; suspicion is therefore raised of such a causal relationship in older patients. However, very few patients with colorectal cancer have had an appendicectomy within 3 years of the cancer diagnosis. There is no definite evidence that large bowel investigation is warranted following an appendicectomy for acute appendicitis in older patients. The aim of this study was to assess acute appendicitis in older patients as a sign of colorectal carcinoma and to investigate if there was a relationship between the two conditions.

Material and Methods: A 9 year retrospective review of all patients aged over 50 years taken to theatre with a presumed diagnosis of acute appendicitis. The study period was December 1995 to December 2004. Patient data was collected from theatre records, histology records and case notes. All inflamed appendices removed at colorectal cancer resections were not included.

Results: There were 1286 patients of all ages with histologically proven acute appendicitis. Of 167 patients older than 50 years taken to theatre, 114 (68%) had appendicitis whilst 53 (32%) had a normal appendix. Of the histologically positive cases, 54% were female and mean age was 65 (50–91) years. None had a synchronous colorectal cancer or other pathology at appendicectomy. Of the 114 positive cases, 31 (26%) had a subsequent large bowel investigation as an outpatient; most of these were requested by a consultant with a colorectal interest. No colorectal lesions were detected in these patients. Only 2/114 (1.8%) patients subsequently