Results: We included 344 colon cancer and 198 rectal cancer survivors and 1181 controls. In a global analysis, survivors reported a significant QOL decline in social functioning (QLQC30) at 5 years (−5.2 points; p = 0.005), and in diarrhea symptom (QLQC30) at 5, 10, and 15 years after diagnosis (+8.2, p < 0.0001; +10.2, p < 0.0001; +6.4, p = 0.006). In subgroup analyses, QOL of rectal cancer survivors were more affected than controls in the physical functioning (SF36) at 5 years (−9.4; p = 0.002), in the physical fatigue (MFI) at 10 years (+8.6; p = 0.01), and in mental fatigue at 5 years after diagnosis (+8.5; p = 0.006). On the assessment of reintegration, cancer survivors saw their marital relationship has strengthened (RR = 1.82 (1.21–2.75); p = 0.0002), attributing change in quality of this relationship (positive or negative) to their health (RR = 4.89 (2.09–11.44); p < 0.0001). As well, their health closely influenced professional activity more often than controls (RR = 4.50 (1.85–10.95); p < 0.0001). They met more difficulties in loan or insurance requests (RR = 3.83 (1.99–7.37); p < 0.0001) whatever tumour location and gender.
Conclusion: Colorectal cancer survivors may experience the effects of cancer and its treatment on QOL up to 10 years after diagnosis. They noted positive changes or less negative changes in life than controls. However, they still have to face to barriers that are keeping in job by avoiding early retirement and accessing to insurance or a bank loan. Clinicians, psychologist, and social workers must pay special attention for colorectal cancer survivors to improve overall management.

6018 POSTER DISCUSSION

EORTC 22921 Rectal Cancer Trial: Quality of Life (QoL) and Functional Outcome 5 Years After Treatment

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Purpose: Long-term impact of preoperative (chemo)radiation (P(C)RT) on QoL bowel and sphincter function in patients with rectal cancer is unknown. Patient-reported health-outcomes in a cross sectional study attached to EORTC 22921 study are presented.
Patients and Methods: 167 French patients, free of disease and had a sphincter preservation had to complete, on time, two questionnaires (Q). The EORTC QLQC30 Q and the Anal Sphincter Conservative Treatment (ASCT), a validated patient-Q.
Results: 5 years after treatments (1−11 y), the QLQC30 Global Health (GH QoL) score was 73.1, similar with observed in a same age group of general population. CT (concurrent, postop or both) negatively affected QLQC30 social functioning (p = 0.06), GHQoL (p = 0.03) and diarrhoea complaints (p = 0.0003). On ASCT, nearly 60% of patients suffered faecal incontinence (any severity), urgency, soiling, modifications of social life. Faecal incontinence was associated with impaired social life measured by both Q.
Conclusion: Adding CT to PRT negatively affect social life. Patients reported high rate of sphincter dysfunction. These results are similar with those previously reported after short course PRT (5 × 5 Gy).

Poster Presentations (Sun, 25 Sep, 09:30−12:00) **Gastrointestinal Malignancies − Colorectal Cancer**

6019 POSTER

No Association Between Dukes' Stage and Genetic − Epigenetic Markers in Colorectal Cancer

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Background: The colorectal adenoma-carcinoma sequence goes with epigenetic and genetic modifications, which arise during oncogenesis. These modifications have an effect on the methylation status of different gene promoters and mutations in the K-ras and B-raf genes among others. Included are, as we have previously shown (ASCO 2011, abstract accepted): methylation of the gene promoters of H-cadherin, of MGMT deregulating removal of toxic methyl adducts on guanine bases and inducing the activation of K-ras through G to A point mutations, activation of B-raf gene by a V600E mutation, methylation of E-cadherin and PTEN inactivation by promoter hypermethylation in more than 200 patients.
Methods: DNA extraction was obtained by standard methods from resected tumour samples. PTEN methylation was analyzed by methylation-specific PCR, gel electrophoresis after Sybr green staining and UV-photography. From each individual patient we examined germline DNA from white blood cells as described above.
Results: Of the 95 out of 222 tumours (43%) with a PTEN hypermethylation, 77 (81%) were also methylated in CDH13, 52 (55%) were MGMT methylated, 35 (37%) had a K-ras gene mutation and were B-raf wild type as expected, their mutations being mutually exclusive. All results were tumour specific as all the sequenced blood controls were unmethylated respectively wild type. In 86 of these patients the Dukes' stage was determined and classified as early (Dukes' A & B) and late (Dukes' C & D).
Conclusions: The extremes of the correlations between Dukes' and the other markers ranged from −0.063 for Dukes' and MGMT (p = 0.40) to +0.078 for Dukes' and KRAS (p = 0.81). Thus no significant correlation was found between Dukes' and the other variables. The work is proceeding to include the additional 150 patient data available, but the p values are such that a modification of the conclusion cannot be expected.

6020 POSTER

KRas and Braf: Is a Predictor in Metastatic Colorectal Cancer Patients for Bevacizumab?

F. Selcukbiricik[1], O. Yildiz[1], D. Tural[1], M.A. Ozturk[1], G. Demir[2], M. Ozguroglu[1], S. Erdamar[1], E. Buyukunal[1], N.M. Mandel[1], S. Serdengecti[1]. *[1]Istanbul University, Cerrahpasa Medical Faculty, Istanbul, Turkey; [2]Bilim University, Medical Faculty, Istanbul, Turkey*

Aim: Unlike cetuximab, there is a paucity of biomarkers for bevacizumab to predict outcome of metastatic colorectal cancer (mCRC) patients. Therefore a research for potential biomarker is urgently needed. We aimed to search K-RAS and B-RAF status of our patients whether mutation would effect the outcome of metastatic colorectal cancer treated with first or second line bevacizumab combined with folfiri.
Methods: We retrospectively reviewed the clinical and pathological features of 166 mCRC patients treated in our outpatient clinic between the years 2000 and 2010. KRAS and BRAF mutations were analysed quantitatively by PCR after having extracted the DNA from tumour tissues.
Results: The median age of the patients was 60.5 (27−83). 62% of the patients were male and 37.2% female. Tumour locations were as follows: 36.6% rectum, 25% sigmoid, 16.3% left colon, 1.2% transverse colon, 9.9% right colon, 7.6% cecum. Forty four percent of the patients were KRAS mutant. Eighty patients had BRAF mutation analysis and 6 were found to be BRAF mutant (7.5%). Initial CEA and CA19-9 levels were not correlated with KRAS and BRAF mutations. All 6 patients who were found to have BRAF mutations had rectosigmoid tumours. On the other hand, 41.7% of rectosigmoid, 57% of left colon, 56% of transverse and right colon and cecum were KRAS mutant. Overall, 108 patients had liver metastasis (62.7%). Liver-only disese was 39%. Whereas 43 patients had lung metastasis (25%), 17 had lung-only disease (9.9%). Fourty-six percent of patients who had liver metastasis and 50% of patients who had lung metastasis were found to have KRAS mutation. When both liver and lung metastases were combined KRAS mutation rate rised to 61%. First or second line FOLFIRI and bevacizumab use was not affected by KRAS mutation or wild type status with respect to progression free survival.
Conclusion: KRAS or BRAF mutation was not observed as a potential biomarker in predicting progression free survival in patients with metastatic colorectal cancer who had been treated with first or second line FOLFIRI and bevacizumab. As KRAS mutation was found more frequently in combined lung and liver metastasis, it may represent a more virulant disease.

6021 POSTER

The Role of ABC Transporter Genes in Colorectal Cancer Resistance

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Background: Worldwide, colorectal cancer (CRC) is the third most common malignancy. In terms of CRC incidence, the Czech Republic ranks