

–93% and –25% respectively) with XELODA (TM). XELODA (TM)-patients received more days of treatment (usually topical preparations) for HFS. Use of colony stimulating factors was infrequent in both arms. Physician consultations and other medical procedures for treatment of these AEs did not involve a significant amount of medical resource use.

**Conclusion:** Oral administration of XELODA (TM) avoided 336 overnight stays and 5,756 outpatient visits for IV administration of drug. XELODA (TM) treated patients needed 184 fewer hospital days for the treatment of related AEs and less use of high-cost medications for AEs. Despite higher drug acquisition costs for XELODA (TM), overall cost savings are likely if it is used instead of the Mayo regimen.

208

## POSTER DISCUSSION

### Functional results after total mesorectal excision (TME) in rectal cancer

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**Introduction:** The primary objective of total mesorectal excision (TME) in the surgical management of rectal cancer is to achieve local tumour control. An important aspect of this technique is preservation of the autonomic nerves and the related sexual and bladder functions, if oncologically feasible. Since a low anastomosis is performed after TME in most patients, preservation of a more or less normal defecation is also important for quality of life.

**Methods:** A total of 88 patients with rectal cancer were managed by TME and preservation of the autonomic nerves between 1996 and 1999. Functions of defecation, voiding and sexual function were assessed preoperatively and postoperatively during follow-up with a scoring system.

**Results:** After a mean follow-up period of 13 months erectile or ejaculatory dysfunction in 33% of male patients was observed. Patients who had received preoperative radiotherapy (5 x 5 Gy) had better scores for postoperative sexual function than those who did not receive radiotherapy. Voiding was disturbed in 18% of patients and did not improve significantly with a longer follow-up. In patients with a low anastomosis, 41% experienced a social handicap because of frequency of defecation or soiling.

**Conclusion:** Quality of life after TME will be determined for a large part by postoperative functional results. In this study a clear relation between the length of follow-up and degree of sexual and bladder dysfunction was not found.

209

## POSTER DISCUSSION

### Late side effects of combined treatment modalities in rectal cancer

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**Purpose:** Combined treatment modalities are increasingly used for the treatment of rectal cancer. The combination of radio- and chemotherapy is known to increase the severity of acute side effects. The data on the frequency and origin of late sequelae, however, is conflicting. The goal of this analysis was to determine the frequency and extent of late side effects and to define prognostic factors for their occurrence.

**Methods:** The data of 53 patients with rectal carcinoma (primary tumors n = 33, recurrent tumors n = 20) were evaluated retrospectively with regard to late side effects. The patients received radiotherapy (RT) only (n = 19) or a combined radiochemotherapy with 5-FU (n = 34). 41 patients also underwent surgery prior to irradiation or after it. The follow-up was 560 ± 359 days with a median of 493 days.

**Results:** Radiation enteropathy was found to be the most frequent late sequela (35/53 cases). It was mild in 23 cases (43.4%, EORTC/TOG grade 1 and 2), whilst 12 patients (22.6%) suffered from severe enteritis (grade 3, 4 and 5). 8 patients (15.1%) required reoperations for late bowel complications. Median time of complication occurrence was 6.8 months after the initiation of RT. Significant risk factors for late bowel complications turned out to be simultaneous chemotherapy (p = 0.03) and surgical treatment as part of the combined treatment plan (p = 0.03).

**Conclusion:** Our results indicate that the combination of radio- and chemotherapy in the treatment of rectal cancer increases the frequency of chronic intestinal side effects. These can cause considerable morbidity and reduce the patients' quality of life. Irradiation techniques and supportive care have to be improved to prevent severe late effects.

210

## POSTER DISCUSSION

### Liver resection after preop. chemotherapy for colorectal metastases: Morbidity and treatment results

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**Problem:** In patients with colorectal liver metastases not amenable to surgical resection or presenting with poor risk factors, preoperative treatment may be advisable. We analysed the impact of preop. therapy upon subsequent resection in terms of morbidity, mortality, and survival.

**Patients and treatment:** From 1993–98, 127 liver resections were performed. Of these, 37 resections (29%) followed systemic or regional chemothp. Median patient age: 61 (35–71 yr). Chemothp: 5-FU/LV (Mayo scheme), HD 5-FU (2.6 g/msq/LV, or 5-FU/LV/oxaliplatin. Time interval between start of chemotherapy and liver resection was 12 mos. in median (2–16 mo.)

**Results:** Resectional procedures: hemihepatectomy (S4/5-8, n = 10), segmental resections (n = 19), plurisegmentectomies (n = 8); mortality: 2.7%. Morbidity: 28 pat. (76%) with uneventful course.; complications: pneumonia (n = 2), bile leakage, (n = 2), bleeding (n = 2), jaundice (n = 2), SIRS/ARDS (n = 1). Radical resection (R0) was possible in 29 patients while another 8 pat. showed extrahepatic spread at laparotomy. Median survival is 25 mos. (4–38+ mos.)

**Conclusion:** Resection of residual liver lesions after systemic or regional chemotherapy can be performed with very limited morbidity and mortality. This approach may offer cure even for patients not amenable to resection as the treatment of first choice.

211

## POSTER DISCUSSION

### Artificial neural network prediction of 5-year survival from colon cancer

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**Purpose:** To determine the effectiveness of computer-based artificial neural networks (ANNs) in predicting 5-year survival from colon cancer.

**Methods:** 400,000 cases from the National Cancer Database with 79 variables for each patient were used in the analysis. Advanced computer technology was used to identify the most important variables for predicting 5-years survival. Thirteen variables were identified in this manner and were used as inputs to an advanced artificial neural network. Evaluation of accuracy was based on the ANNs performance on an additional 1000 patients ("validation patients%") that were not used in the design of the neural network solution.

**Results:** The area under the Receiver Operator Characteristics (ROC) Curve was 82% for the "validation patients%". Choosing a point on the ROC Curve that represented optimized overall accuracy resulted in the following: Sensitivity = 67%, Specificity = 82%, 5-year predictive value = 71%, 5-year death predictive value = 79%, Overall accuracy = 76%.

**Conclusion:** Artificial neural networks were able to predict with clinically useful accuracy, the 5-year survival of colon cancer patients. In addition, the program generalized very well to patients that were not used in the development of the solution.

212

## POSTER DISCUSSION

### Postoperative radiation (RT) and concomitant bolus fluorouracil (FU) with or without additional chemotherapy (CT) as adjuvant treatment in patients with high risk rectal cancer. A randomized phase III study conducted by the Hellenic Cooperative Oncology Group

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**Purpose:** To compare the impact of postoperative RT with or without additional CT on disease-free survival (DFS) and overall survival (OS) of patients with stage II or III rectal cancer.

**Methods:** From October 1989 until February 1997, 220 patients were randomized postoperatively to receive either one cycle of CT with FU and leucovorin (LV) followed by pelvic RT with concomitant FU (400 mg/m<sup>2</sup>) as