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AUTOLOGOUS VERSUS ALLOGENEIC BLOOD TRANSFUSIONS AND PROGNOSIS IN COLORECTAL CANCER PATIENTS

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Blood transfusions are widely used in surgical patients. In a number of retrospective studies it has been suggested that blood transfusions might have an adverse effect on prognosis of patients operated for a malignancy. However, to date no definite proof of this has been reported.

Therefore, a randomized trial was performed in which the effects of allogeneic and predeposit autologous blood on survival and disease-free interval were compared in colorectal cancer patients. Autologous patients were required to donate two units of blood prior to surgery.

A total of 475 patients (236 allogeneic, 239 autologous) with colorectal carcinoma were evaluated according to the intention-to-treat principle. Patients characteristics were similar in both groups. In the autologous group the exposure to allogeneic blood transfusions was reduced by 50%. No significant difference in prognosis between the two groups was observed. At 4 years of follow-up, colorectal cancer specific survival was 67% in the allogeneic group and 62% in the autologous group (P=0.81). From the 423 curatively operated patients, 66% in the allogeneic group and 63% in the autologous group were free from recurrence at 4 years (P=0.74).

Cox-regression showed that the relative recurrence rate (RRR) was significantly greater than one both for patients transfused with allogeneic blood (RRR=2.1; P=0.01) and for patients transfused with autologous blood only (RRR=1.8; P=0.04) as compared with those patients who did not require transfusions. The RRRs of the last two groups did not differ significantly from each other.

These results showed that predeposit autologous blood transfusions did not influence either the disease-free interval or survival of colorectal cancer patients. In addition, multivariate analysis showed that transfusions, irrespective of the type, were associated with poor prognosis. It is, therefore, concluded that not the blood transfusions themselves, but the circumstances that necessitate the administration of blood transfusions are the real predictors of prognosis.

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DOES PREOPERATIVE RADIOTHERAPY ALTER THE CLINICAL OUTCOME AMONG PATIENTS WITH LOCALLY RECURRENT RECTAL CANCER?

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The aim of this study was to asses if preoperative radiotherapy alters the clinical course among patients with local recurrence of rectal cancer. Method: The study was based on 849 patients included in a prospective, randomised trial on preoperative radiotherapy in operable rectal adenocarcinoma. In all, 156 patients developed a local recurrence. Clinical data in all these patients were analysed. Results: Preoperative radiotherapy reduced the local recurrence rate among irradiated patients to 50% compared to non-irradiated. Among those patients who developed a local recurrence 94% had symptoms from their tumour and 72% had extensive pelvic growth. Curative surgery was rarely possible. Median survival from diagnosis of local failure was about one year and five-year survival was only 3%. Half of the patients died with the locally recurrent tumour as the only manifestation of disease. There were no significant differences concerning clinical course among irradiated and non-irradiated patients. Conclusions: 1.Preoperative radiotherapy does not change the clinical outcome among patients with manifest local recurrence of rectal cancer. 2. Local failure is often the only manifestation of disease. 3. Earlier diagnosis and a more aggressive treatment may improve the prognosis among these patients.

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HUMAN PAPILLOMAVIRUS AS ONCOGENIC INITIATOR IN ANAL CARCINOMA.

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The etiology of anal canal carcinoma is still much unknown. Several etiologic factors have been discussed,and there is some evidence that human papilloma virus (HPV) may act as a carcinogenic initiator. The present study was performed to examine if a correlation exists between squamous cell carcinoma of the anal canal and 5 different HPV subtypes (no. 6,11,16,18,31). These subtypes were chosen among the more than 60 different HPV that are identified on the basis of previous reports of HPV as oncogenic agents.

In situ hybridization technique was used to demonstrate HPV in paraffin embedded biopsies. A total of 99 patients (74 women and 25 men) were admitted to the Norwegian Radium Hospital during 1986-91, they were all included in the study. HPV-16 could be demonstrated in 81% of the women and in 48% of the men,while HPV-6,11,18 and 31 were found in only 0-4% of the cases. Moreover,HPV-16 could be demonstrated in less than 5% of patients receiving a Miles'operation for rectal adenocarcinoma. The present study indicates that HPV-16 may be a carcinogenic initiator in anal carcinoma,especially women.

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RESULTS OF EORTC TRIAL 22831 IN RESECTABLE RECTAL CANCER USING POSTOPERATIVE PELVIC RT WITH AND WITHOUT IRRADIATION OF PARAAORTIC NODES AND LIVER.

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This randomized trial on B2-B3, C1-C2-C3 rectal adenocarcinoma compared postoperative pelvic radiotherapy (RT) of 50 Gy/25 fr/5 wks (arm 1) to the same treatment with an extended target volume to paraaortic nodes and liver to 25 Gy/20 fr/3 wks (arm 2). 485 patients (pts) were entered in the trial from 1983 to March 1992. 11% of pts were ineligible and were excluded. 424 pts are evaluable for the analysis. Nausea, vomiting, leukopenia and thrombocytopenia were significantly more severe (p 0.0001) in arm 2. RT was stopped or interrupted because of acute toxicity in 23% of pts in arm 2 as compared to 9% in arm 1. No significant difference was observed for late damage. Median survival is 245 wks. There is no significant difference in 5-year survival between the treatment arms (48% in arm 1 versus 52% in arm 2). The causes of death are comparable in the 2 arms in particular for death from distant metastases. A 5-year local failure rate is 28% in arm 1 versus 34% in arm 2. The 5-year extra-pelvic failure rate is 41% in arm 1 and 39% in arm 2. The 5-year liver metastases rate is 19% in arm 1 and 27% in arm 2 (p=0.06). A Quality Control procedure explored correlations between the amount of small bowel in the target volume and the incidence of complications.

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SCM TEST IN COLORECTAL CANCER: CORRELATION WITH CLINICAL PARAMETERS

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The structuredness of the cytoplasmic matrix (SCM) was studied in 44 randomly selected colorectal cancer (CRC) patients and in 42 healthy volunteers, with the aid of fluorescein fluorescence polarization tests: a baseline value of polarization of lymphocytes (P-0) and after exposure to phytohemagglutinin (P-PHA) and encephalitogenic factor (P-EF). The pure values of the FFP tests enabled to discriminate between low- and high P-PHA patients. The difference in P-EF between low- and high P-PHA patients was significant. In the high P-PHA patients, P-PHA and P-EF values were significantly different from those in the control group, the P-EF values were significantly lower than in low P-PHA patients, the platelet count was significantly lower than in the low P-PHA patients. Significant differences were also found in P-EF between Sepharadic and Ashkenazi Jews, in P-PHA between cases with cecal primary tumors and those in other sites, in P-PHA and P-EF between locoregional and metastatic diseaes. Higher P-EF values were associated with shorter survival in either group of P-PHA. Dying low P-PHA patients already had metastatic disease at the time of the FFP test. Dying high P-PHA patients had locoregional disease at the time of the FFP test, but developed metastatic spread later during their follow-up. We conclude that the SCM test may be potentially applicable in various clinical situations in patients with colorectal cancer.

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SPECT IMAGING OF COLORECTAL CARCINOMA WITH RADIOIMMUNOSCINTIGRAPHY

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In the follow-up of patients with colorectal cancer, early detection of tumour relapse and metastases is essential to improve the prognosis by the treatment. Radioimmunoscintigraphically were studied 17 patients-9 females and 8 males, of age between 33 and 74 years. The $F(ab')_2$ fragments of monoclonal antibodies against CEA and CA 19-9, labelled with 131-J in doses 74-140 MBq were used. In order to block thyroid and intestinal epithelial cells uptake of free iodine, potassium iodide was orally administered for 5 days. Planar and tomographic images were obtained at 24, 48, 72 and 96 hours after intravenous application of the labelled antibodies. Sensitivity of the method was 68,5% and specifity-92,5%. Radioimmunoscintigraphy is non-invasive, highly specifical method, increasing the diagnostical possibilities for due detection of primary colorectal carcinomas and especially its reccurences and metastases.