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SANDWICH RADIOTHERAPY IN THE TREATMENT OF RECTAL CARCINOMA. Lo, T.C.M. and Girshovich, L., Lahey Clinic Med Ctr, Burlington, MA, USA. Between 1979 and 1989, 210 patients with rectal carcinoma were treated with "sandwich" radiotherapy. A single dose of 5 Gy was delivered preoperatively. Of those who received postoperative irradiation, the median dose was 45 Gy. Two patients underwent fulguration only and 12 patients had unresectable tumor. Nine patients had stage A disease; 97 stage B disease; 62 stage C disease; 26 stage D disease. The minimum follow-up was 26 months. At present, 118 patients (56%) are alive with a median follow-up of 53 months. Of those completing postoperative radiotherapy, the rates of local recurrence were 22%, 8%, and 31% for stage B2, C1, and C2 patients, respectively. The 5-year disease-free survival rates for stage B1, B2, C1, and C2 patients were 79%, 67%, 77%, and 36%, respectively. Fifteen patients developed surgical complications. We conclude that "sandwich" radiotherapy for rectal carcinoma may be effective in local tumor control, but it shows no protection on metastasis.

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LATE RESULT OF SURGICAL TREATMENT OF RECTAL CANCER Z. Gruga, Z. Wajda, Z. Sledzinski, M. Dzoga-Litwinowicz, T. Wysocki, P. Cichecki, J. Glowacki, A. Stanek

II Department of Surgery, Medical Academy of Gdansk, Gdansk, Poland. In the years 1956-1992 in the II Department of Surgery Medical Academy in Gdansk 444 patients were operated for rectal cancer. The diagnosis and indications for operation was put on the base of radiologic, endoscopic and histologic findings and recently on transrectal endosonography. Radical operation was performed on 240 patients /53,8% / with 40 cases of sphincter-sparing techniques. Palliative procedure was performed on 201 patients, and exploratory laparotomy on 5 patients. The operative mortality for radical resection was 4,1% of them and 8,9% /N-18/ for palliative. All the operated patients have been inquired and now we have got information about 48,4% of them. After palliative operations the average survival time was 13,2 months and 49,2% after radical operations.

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CYTOKINETIC EFFECTS OF INTERFERON (IFN) IN COLORECTAL TUMORS. IMPLICATIONS FOR THE DESIGN OF 5FU/IFN REGIMENS. Cascinu S, Fedeli A, Del Ferro E, Sani F, Catalano G. Servizio di Oncologia, Ospedali Riuniti. Pesaro. Italy. A three times a week IFN administration, as used in most of the 5FU/IFN regimens, could block tumor cells in G0/G1 phase of the cell cycle, thus rendering tumor cells insensitive to 5FU, a S-phase specific agent. In order to verify the presence of this block, 20 operable colorectal cancer patients were treated with IFN alpha 2b at the dose of 3MU every other day in the week before operation, while other 15 were used as controls. Samples of tumor tissue were taken at endoscopy (E) and operation (O). 3H- thymidine Labeling Index (LI) and flow cytometry (FC) were used to assess the S-phase fraction:

INTERFERON						CONTROLS					
% S-phase fraction						% S-phase fraction					
E	LI	O	P	E	FC	E	LI	O	P	E	FC
13.6	3.0		.001	23.3	16.1	7.3	4.5		ns	19.4	16.8
					.001						ns

Our result suggest that IFN reduce the S-phase fraction. This action should be considered in designing 5FU/IFN combinations because it could decrease 5FU activity.

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THE DIAGNOSIS AND EVALUATION OF COLORECTAL CA USING RADIO --LABELLED ANTI-CEA MONOCLONAL ANTIBODY FRAGMENTS.

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Colorectal cancer has been cited as the cause of 13% of all cancer deaths in the US during 1986, while being the second highest overall death rate in the US for any tumoral site. It is widely acknowledged that early detection of colorectal primary cancer and metastases will improve the prognosis. Here we present our results on the use of I-123 labelled fragments of monoclonal antibody to CEA, in 17 patients with 32 proven sites of colorectal cancer. Our results are summarized in the following table:

	True Positive Studies	False Negative Studies	Unexpected Tumoural sites Detection
SPECT study	7/32(21.9%)	5/32(15.6%)	5/5 (100%)
Planar study	20/32(62.5%)	12/32(37.5%)	3/5 (60%)
Total	27/32(84.4%)	5/32(15.6%)	5 (100%)

We suggest the combination of planar and SPECT scanning as a promising tool for the early detection and evaluation of colorectal carcinoma tumoral sites, providing higher detection rates and a considerable gain of information.

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PAEGOCYTIC FUNCTIONS IN PATIENTS WITH COLORECTAL ADENOCARCINOMA TREATED WITH FLUOROURACIL

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Monocyte, and particularly granulocyte phagocytic functions in tumor defence, have so far been poorly discussed, especially in the context of using cytotoxic agents as possible immunoaugmenting agents in a complex regulatory immune system. Besides its involvement in intracellular killing of tumor cells, phagocytosis seems to play a role in other immunological actions, thus becoming more interesting in the studies of immune aspects of host tumor defence. Using acridine orange method and living yeast cells as targets, we followed the ingestion (PI) and intracellular killing (KC) capacity of peripheral blood granulocytes (G) and monocytes (Mo) in 19 patients with Dukes C colorectal adenocarcinoma (CAC) during 6-cycle fluorouracil therapy (FU, each cycle : 10 mg/kg/day, 5 days, followed by 3-week hiatus) and compared to 28 healthy controls. G PI remained decreased during the whole therapy, while Mo pi was decreased during the first two cycles, then reaching values not different from the normal ones. Both G KC and Mo KC were decreased at the beginning of the therapy, reaching values not different from the normal ones before the second FU cycle, and remained unchanged. The data obtained suggest that both G and Mo phagocytic functions, altered in CAC patients, can be reversed by FU therapy, indicating beneficial effect of FU on these important host defence functions.

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POSTOPERATIVE USE OF ULTRAVIOLET IRRADIATION OF THE BLOOD (UVIB), PLASMAPHERESIS (PP) AND DAB-COMPLEX IN PATIENTS WITH RECTAL CANCER

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142 pts with rectal cancer (T2 - 36 pts, T3 - 106 pts) have been undergone a surgical management. In postoperative period (p.o.) 72 pts (Group I) have been treated by means of i.v. infusion therapy with the use of UVIB - Q-254 nm, 40 min daily in first 3-4 p.o. days and DAB-complex (Dalacin-C 2 ml x 3 times d., i.m.; Aevitum 1 ml, i.m.; Heparinum 40000 ME daily, s/c). 70 pts (Group II) were treated with ordinary p.o. infusion therapy. In case of serious p.o. complications we used PP (18 times in 12 pts) in both group of pts.

The comparative clinical results show that in Group I p.o. cardiovascular complications took place in 15,3 % pts, in Group II - 40 % pts; p.o. purulent complications were observed in 9,7 % of pts Group I and in 27,1 % in Group II; p.o. lethality was 2,7 % in Group I and 12,8 % in Group II.