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RELATIONSHIP BETWEEN EDUCATIONAL DEGREE AND KNOWLEDGE/ADHERENCE TO PREVENTION MODALITIES FOR COLORECTAL CANCER: DATA FROM 3738

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Knowledge and adherence to cancer prevention modalities could be influenced by educational degree. We attempt to prove this possible relationship concerning the prevention of colorectal cancer (rectal exploration, occult blood test, rectoscopy) in an unselected population. **Methods:** We distributed a self administered questionnaire to people coming in several health units in Trento district and in Genoa (Italy). **Results:** We assessed data from 3738 questionnaires. The educational degree was provided by 3674 people (0.6% had any degree, 2.7% primary, 31.8% secondary, 36.4 high secondary, 6.8% university). Most of the people knew the modalities of prevention: 66% knew the aim of rectal exploration, 65% the aim of occult blood test, 69% the aim of rectoscopy. The educational degree significantly influenced the knowledge, being the groups with lower educational degree characterized by a lower knowledge. Exploring the real adhesion to these modalities, it is to note that the percentages impressively decrease. In addition, we were not able to find a direct relation between educational degree and adhesion to prevention modalities. **Conclusion:** The educational level influences the information about colorectal cancer prevention methods, but a high degree is not a predictor for a real adherence to check-ups.

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EXPRESSION OF THE DRUG RESISTANCE GENES MDR1, MRP, GST π AND MT2 α IN HUMAN PRIMARY GASTRIC CARCINOMAS

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Multidrug-resistance (MDR) can be due to the overexpression of the MDR1 gene or the multidrug-resistance associated protein (MRP) gene. In addition, alterations in the expression and activity of glutathione-S-transferase π (GST π) can cause MDR. Metallothionein (MT) as antitoxic factor may also be involved in MDR. To evaluate the clinically active mechanisms of drug resistance in gastric carcinomas, we have evaluated the expression of MDR1, MRP, GST π and MT2 α in primary gastric carcinoma specimens by RT-PCR. RNA was isolated from tumor specimens and cDNA was synthesized by standard techniques. MDR1 RNA was detected in 50/72 (69%) and MRP RNA in 59/72 (82%) of the tumors. GST π and MT2 α were expressed in all tumor specimens studied (n=26). Thus several drug resistance genes are expressed in gastric carcinomas and might contribute to the clinical drug resistance but their relative quantitative contribution to clinical drug resistance will have to be determined in future studies. (Supported by the "Medizinisch-wissenschaftlichen Fonds des Bürgermeisters der Bundeshauptstadt Wien")

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MDR1 TRANSCRIPTS DO NOT INDICATE LONG-TERM PROGNOSIS IN PRIMARY COLORECTAL CARCINOMAS

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The MDR1 gene, a multidrug resistance gene, is frequently expressed in colorectal carcinomas. To determine whether this expression is of prognostic value, we determined the relationship between MDR1 gene expression of primary colorectal carcinomas and the long-term outcome of the patients. RNA was isolated from tumor specimens by standard techniques. MDR1 gene expression was determined by slot blot analysis by means of a radiolabeled cDNA (probe 5A). Survival durations of the patients were calculated according to Kaplan-Meier. MDR1 RNA was detected in 65% of the primary carcinomas. At a median follow-up of 80 months, the durations of both relapse-free survival and overall survival were not different between patients with MDR1 RNA positive tumors and those with MDR1 RNA negative tumors. Thus MDR1 gene expression of colorectal carcinomas does not predict the prognosis of the patients, although it might be involved in the well known drug resistance of these tumors.

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ROLE OF RADIOTHERAPY (RT) IN THE TREATMENT OF RESECTABLE GASTRIC CANCER

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To evaluate the value of RT in the treatment of gastric cancer two consequent trials are analyzed. 1. An original scheme of preoperative RT in dose dynamic fractionated regime (27 Gy during 7 days) followed by the operation on the next day was used in 73 patients. The treatment was well tolerated and resulted in decreasing of the number of distant metastases and prolongation of life duration in the case of disease relapse. 3-YSR was 73%. 2. Since 1993, prospective randomized trial of preoperative RT and IORT (20 Gy) vs surgery alone was initiated. We expect the proposed treatment to be beneficial for decreasing both locoregional and distant recurrences and increasing long-term survival rate. 57 patients are included in the study with median follow up period of 15 months. Preliminary results show the incidence of acute and late complications is similar in both groups.

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ASSOCIATION BETWEEN HELICOBACTER PYLORI INFECTION AND PANCREATIC CANCER

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In order to determine whether infection with *H. pylori* might be associated with pancreatic adenocarcinoma, we performed a case-control study to compare the *H. pylori* seroprevalence rate between patients with pancreatic carcinoma and matched control subjects. Blood samples from 92 patients with histologically confirmed diagnosis of pancreatic adenocarcinoma were analyzed for the presence of IgG antibodies against *H. pylori* by a commercially available enzyme-linked immunosorbent assay. Thirty patients with gastric cancer, 35 patients with colorectal cancer, and 27 healthy volunteers served as controls. In addition to these serological analyses, tumor specimens from 20 patients with pancreatic adenocarcinoma were microscopically investigated for the presence of *H. pylori*. 65 % of pancreatic cancer patients and 69 % of those with gastric cancer were found to be seropositive, while only 45 % of the other controls tested positive. Statistical analysis revealed no difference in seropositivity between the cohort of patients suffering from pancreatic and gastric cancer. The rate of seropositivity was more prominent, however, in pancreatic cancer patients when compared with those suffering from colorectal cancer and/or with normal controls ($P=0.019$). Microscopic evaluation of human pancreatic cancer specimens showed no evidence for the presence of *H. pylori*. Our data suggest an association between *H. pylori* infection and pancreatic cancer. Despite demonstration of a positive relationship and its physiological plausibility, larger prospective studies are needed to confirm our preliminary findings and to assess *H. pylori* as a potential carcinogenic risk factor.