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CA 19-9 CONCENTRATION IN GASTROINTESTINAL CANCER PATIENTS: RELATIONSHIP WITH OTHER TUMOUR MARKERS AND CLINICAL STAGE

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In this study we evaluated the sera of gastrointestinal cancer patients for the presence of the CA 19-9 antigen by an immunoradiometric assay with monoclonal antibody (Sorin). The patients studied were divided according to their clinical stages. In each serum sample we assayed either the carcinoembryonic antigen (CEA) by a conventional radioimmunoassay and circulating immune complexes (IC) by at least two of three methods: a direct lasernephelometric assay, a method that measures the agglutination of latex particles coated with Clq from Behring and the nephelometric assay of PEG precipitable IgG and complement factors. CA 19-9 was found in high concentration in patients with evidence of neoplastic disease and, in those bearing metastatic tumours, it was higher than in those with localised disease.

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^{64}Cu AND KREBS ASCITIC TUMOUR IN MICE: DOSE EFFECT RELATIONSHIPS

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We have tried to control the development of an ascitic tumour in mice using the transmutation lethal effect of ^{64}Cu. In all experiments, the first ^{64}Cu injection was given on day 6 following intraperitoneal inoculation of 10^3 to 5 x 10^5 malignant cells. We observed that 1) the survival index depends on the total dose of ^{64}Cu administered (I.P. route) but not on the time schedule of the injections, and 2) the efficiency of ^{64}Cu in improving the survival of mice with an ascitic tumour is maximum when the doses given are set between two limits, each of which depends on the number of malignant cells injected. Below the lowest and above the highest, ^{64}Cu is less efficient.

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NUCLEAR PYRUVATE KINASE (PK) ISOENZYMES, SENSITIVE AND INSENSITIVE TO L-CYSTEINE (CSH) IN HUMAN UROTHELIAL CELL LINES

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PK isoenzymes from nuclei of human pre-malignant and malignant urothelial cell lines were separated by polyacrylamide gel electrophoresis. Slow migrating isoenzyme, sensitive to CSH inhibition was found only in malignant cell lines (Hu 456, Hu 1703 HE) classified as transformation grade III (TGr III) obtained from transitional cell carcinomas of the human bladder. In nuclei of the "spontaneously" transformed TGr II cell line (Hu 609 T) originally derived from the normal urether, the PK isoenzymes were similar to the pattern of other malignant cell lines with the exception that the slow isoenzyme was resistant to CSH inhibition.

The immortal but non-tumourigenic (TGr II) HCV-29 cell line obtained from normal human bladder mucosa and its "spontaneously" transformed tumourigenic (TGr III) subline, HCV-29T, showed only two fast migration PK isoenzymes indicating the absence of cross-contamination with the other cell lines investigated.
