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PROGNOSIS AND PATTERN OF SERUM CEA LEVELS BEFORE AND AFTER COLOSTOMY IN COLON CANCER. Y.Oshiumi, M.Saku, T.Kajiwara and H.Honda. National Fukuoka Central Hospital, Fukuoka

In this study we have evaluated pattern of serum CEA levels before and after colostomy for prognosis of colon cancer. One hundred and eleven cases that had colostomy from Jan. '80 to Dec. '84 were reviewed. The pattern of serum CEA levels were classified in three types, as follows: Type I; both normal CEA levels. Type II; abnormal CEA levels before colostomy and thereafter normal CEA levels. Type III; both abnormal CEA levels.

Result:

In 104 of one hundred and eleven cases, serum CEA levels decreased after colostomy. Dukes' A was 46% in Type I and 14% in Type III, but Dukes' D was 6% in Type I and 38% in Type III. Negative factor N was 49% in Type I, but 26.3% in Type III. Factor P and S had no effect to serum CEA levels. Curative cases with Type I was 96%, but non-curative cases with Type III was 25%. Survival time in all cases is under follow-up.

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COMPARISON STUDY ON TUMOR SPECIFICITY OF THE TUMOR MARKERS. A.Kuroda, T.Yatabe, T.Inaba, H.Yamada Tokyo Metropolitan Geriatric Hospital

In order to characterize tumor markers, serum levels of carcinoembryonic antigen (CEA), carbohydrate antigen 19-9 (CA19-9), elastase 1 (ELS), neuron specific enolase (NSE) and squamous cell carcinoma related antigen (SCC) were estimated in various sera from 256 cases, out of which 68 patients had been diagnosed to have malignancy. All the tumor markers except CEA, were measured by RIA. Enzyme immunoassay was used for CEA.

In patients who had hepatoma, plasma AFP levels were found to be markedly higher than other markers, which would make the diagnosis of this disease relatively easy. CA19-9 levels were also higher than normal cases but not so as AFP.

In pancreas, colon and rectum cancer, CA19-9 and CEA showed high levels. However, in about 80% of the cases, CA19-9 were higher than CEA. In pancreas cancer, ELS levels also were found to be relatively high and are probably useful for differentiation of pancreas cancer from biliary obstruction.

For gastric cancers, no specific tumor markers were found. In some cases AFP and NSE tended to be high, and relationship between high AFP and liver metastasis was suggested.

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A NEW METHOD FOR MEASUREMENT OF TIBC AND UIBC.

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Recently, we have introduced to TIBC and UIBC as a result of our fundamental investigation to overcome some disadvantages associated with thus far reported a new method for measurement of TIBC and UIBC.

A new assay design of TIBC and UIBC using coprecipitation method has simple and speedy assay procedure without pretreatment. And then the new method requires only 25 minutes incubation at room temperature. And, the only 75 μ l of specimen was needed for the assay. In this assay the sensitivity was about 15 μ g/dL. Reproducibility within assay was 2.8-4.9% as c.v.%. It was excellent near the high range. The correlation coefficient between TIBC concentrations measured by our method and present method was $r=0.948$ ($n=52$).

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EVALUATION OF PLASMA AND BALF (BRONCHO ALVEOLAR LAVAGE FLUID) C3a/C5a LEVELS IN PATIENTS WITH INFLAMMATORY LUNG DISEASES. M.Kuroda, M.Kanazawa, A.Ishizaka, Y.Suzuki, A.Kubo, S.Hashimoto. Keio University, Tokyo.

C3a and C5a are potent bioactive polypeptides that play a key role as mediators in the acute inflammatory response. We measured plasma and BALF levels of C3a/C5a in patients with inflammatory lung diseases by using Human complement C3a/C5a des Arg RIA kits (I-125) (Upjohn diagnostics). Plasma C3a and C5a levels (mean $\pm$ SD) were 78.5 ± 16.8 ng/ml and 2.4 ± 2.1 ng/ml in the healthy ($n=11$), 448.5 ± 165.5 and 10.1 ± 10.1 in idiopathic pulmonary fibrosis ($n=8$), 185.3 ± 87.6 and 4.9 ± 4.7 in sarcoidosis ($n=8$), 162.8 ± 104.8 and 8.4 ± 9.6 in broncho-bronchiolitis ($n=8$), 313.2 ± 159.7 and 2.3 ± 4.36 in primary atypical pneumonia ($n=5$), 204.3 ± 174.9 and 3.9 ± 6.7 in lung cancer ($n=4$), respectively. BALF C3a and C5a levels (mean $\pm$ SD) were 85.2 ± 37.0 ng/ml and 16.6 ± 18.0 ng/ml in the healthy ($n=3$), 75.3 ± 44.4 and 20.2 ± 28.6 in idiopathic pulmonary fibrosis ($n=5$), 362.5 ± 352.0 and 11.8 ± 12.2 in sarcoidosis ($n=6$), respectively. All patients with idiopathic pulmonary fibrosis showed increased plasma C3a levels. Three out of the four patients who had the active diseases showed increased plasma C5a levels. Although BALF C3a and C5a were detectable in all subjects, continued clinical studies will be required to assess the significance of BALF C3a and C5a measurements.