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CA19-9 ON PANCREAS CANCER PATIENTS, COMPARATIVE STUDY OF THREE DIFFERENT TUMOR MARKERS. S. Inagaki, K. Miyamoto, H. Yamamoto, Japan Medical Corporation.

CA19-9 was discovered by Koprowski as a new antigen for cancer in the alimentary system, and CA19-9 has been efficiently used as a tumor marker. We have tested CEA, ferritin and erastase 1 at the same time with the Elsa CA19-9 TM Kit (Green Cross), and studied the efficiency of them as tumor markers with serum taken from pancreas cancer patients and patients suspected of having cancer. 108 patients were tested, and we sought the positive rate with each marker. Incidentally, the CA19-9 cut off point of 37U/ml was established by the Del Villane group. The positive rate for each marker was as follows: CA19-9 83% (90/108), Erastase 1 39% (42/108). Although Erastase 1 has been the reported tumor marker for pancreas cancer, Erastase 1's positive rate was lower than that of CA19-9. We compared the positive rate of each tumor marker, and CA19-9 was the best among all the tumor markers; CA19-9 seems to be the most reliable tumor marker for pancreas cancer.

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EVALUATION OF SERUM CA19-9 IN DIGESTIVE DISEASES

Fundamental and clinical studies. Michiko MASAKA, Katsutoshi TAMAKOSHI, Kohichi KANAI and Teruya YOSHIMI. 2nd Department of Internal Medicine, Hamamatsu University School of Medicine, Handacho, Hamamatsu, Shizuoka, Japan.

Fundamental studies and clinical evaluation of serum CA19-9 in patients of digestive diseases have been carried out. In this method, the coefficient of variation for between assay were 4.4% to 15.4%. The reference range of sera obtained from 54 normal adults were less than 5.5U/ml to 16.4U/ml.

When the cases with serum CA19-9 level higher than 37U/ml were regarded as positive, the positivity of nonmalignant hepatic disease was 10.6%, pancreatic carcinoma 70%, bile duct carcinoma 70%, colorectal carcinoma 52%, respectively, whereas that of hepatocellular carcinoma was only 5.6%.

There were little correlation between CA19-9 and CEA or TPA. These results suggests that CA19-9 is rather specific for the detection of pancreatic carcinoma and bile duct carcinoma.

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FUNDAMENTAL AND CLINICAL EVALUATION IN CARBOHYDRATE ANTIGEN 19-9 (CA 19-9).

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From the fundamental points of Carbohydrate Antigen 19-9 (CA 19-9) measurement, we had almost satisfactory data in standard curve, intra-assay and inter-assay reproducibility and dilution and recovery test.

From the clinical points, we studied CA 19-9 level in serum in 209 patients; normal subjects were 15 in number, benign diseases 62, malignant diseases 132. In normal subjects, all CA 19-9 levels were under 15U/ml. In benign diseases, such as gastric ulcer, cholelithiasis, choledocholithiasis and liver cirrhosis, almost all patients' CA 19-9 levels were under cut off one (37U/ml), except for a few patients; choledocholithiasis or liver cirrhosis. In malignant diseases, such as gastric cancer, esophageal cancer, colorectal cancer, pancreas cancer, cancer in bile tract, lung cancer, leukemia and malignant lymphoma, 28 patients of 132 ones (21.2%) were over cut off level. Especially over 80% of patients were high CA 19-9 level in pancreas cancer and cancer in biliary tract. In hematological disorders, there was no high CA 19-9 level in acute and chronic leukemia, otherwise 2 patients in 8 ones were high CA 19-9 level in malignant lymphoma, and 2 in 4 patients high in idiopathic thrombocytopenic purpura (ITP). We will study more patients' CA 19-9 in malignant lymphoma and ITP, because those patients were small in number.

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