

K. Gastrointestinal System (Gastroenterology)

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MULTIPLE IMAGING OF PANCREATIC CARCINOMA

-THE ROLE OF CT, US AND RI-

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There are multiple imaging modalities for the study of pancreatic disease. But their use and correlation has not yet been defined. We reviewed 26 cases of pancreatic carcinoma and evaluated the role of CT, US AND RI. Of them, only 4 cases were respectable. Real time ultrasound was useful to demonstrate the dilated pancreatic duct and choledochus. Echo guided aspiration biopsy was also useful in the 3 cases of cyst adenocarcinoma.

Abnormal pancreatic scan was obtained in 23 out of 25 cases, but it was non-specific. Radionuclide scan is recommended when the origin of the mass neighbouring the pancreas cannot be evaluated using US and/or CT.

It was difficult to find a carcinoma in the pancreatic capsule. We believe that the potential for increasing diagnostic accuracy is present using the dynamic CT scanner.

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CORRELATION OF PANCREAS SCINTIGRAM ABNORMALITY WITH URINARY PABA EXCRETION AND SERUM ELASTASE I LEVEL.

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In 35 male and 13 female subjects between 16 and 80 years of age, pancreatic scintigrams with Se-75 Methionine, urinary excretion of PABA (U-PABA) and the serum elastase I level (Elastase I) were studied. Pancreatic scintigrams were classified into (+), (±) and (-) groups. Both U-PABA and Elastase I were lower ($53.4 \pm 12.4\%$ & $175 \pm 107 \text{ ng/dl}$ respectively) in pancreatic scintigram (-) group than in pancreatic scintigram (+) (mean U-PABA $80.9 \pm 11.8\%$, mean Elastase I $313 \pm 189 \text{ ng/dl}$) or pancreatic scintigram (±) (mean U-PABA $68.9 \pm 11.5\%$, mean Elastase I $309 \pm 224 \text{ ng/dl}$). On the other hand the level of Elastase I above 400 ng/dl was seen in 2 cases of pancreatitis, 3 cases of pancreas carcinoma, 2 cases of diabetes mellitus and 2 cases of liver cirrhosis. In carcinoma of the pancreas, elevation of the serum elastase I was observed in 3 of 5 cases (920 ng/dl in one case of carcinoma of the pancreatic body and 470 and 560 ng/dl in 2 cases of carcinoma of the tail of the pancreas).

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COMBINED PANCREAS AND HEPATOBILIARY TRACT SCANNING USING A DOUBLE ISOTOPE TECHNIQUE.

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Recently we have various imaging modalities in the evaluation of patients with suspected pancreatic diseases. But the pancreatic diagnosis has remained to be difficult. As to pancreatic scanning, a double radioisotope method of demonstrating the pancreas alone was introduced clinically by Kaplan et al. in 1966. This paper reports the clinical utility of a dual isotope technique using Tc-99m HIDA as the hepatobiliary tract scanning agent and Se-75 selenomethionine as the pancreas agent. A total of 33 scans have been carried out using the technique. Twenty-three of the 33 patients show the abnormality of the biliary tract including dysfunction of the gallbladder and the papilla Vateri. It is well known that pancreatic diseases are often complicated with biliary tract disorders. Our data also show the same results. Informations obtained from hepatobiliary tract scan are as follows. (1) location of the spleen and kidneys (2) liver function (3) S.O.L. in the liver (4) status of the bile flow (5) function of the gallbladder and the papilla Vateri (6) running of the small intestine. These informations are very useful for the interpretation of the pancreatic scan. We believe that this technique is very useful for the evaluation of pancreatic disorders.

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CLINICAL SIGNIFICANCE OF PANCREATIC SCINTIGRAPHY FOR THE DIAGNOSIS OF PANCREATIC DISEASES. H. Itikawa, E. Yasuda, H. Yosida, T. Kimura, I. Kanamori and S. Nakano Department of Radio-Nuclear Medicine and Second Internal Medicine, Ogaki Municipal Hospital, Ogaki

Recently, U.S. and CT became more valuable methods for diagnosing the pancreatic diseases. In eighteen patients with pancreatic cancer, 7 patients with chronic calcifying pancreatitis and 6 patients with chronic pancreatitis, pancreatic scintigraphy, U.S. and CT were carried out to compare their diagnostic values respectively. The results were as follows.

- (1) U.S. and CT were superior to the scintigraphy for the diagnosis of chronic calcifying pancreatitis and pancreatic cyst but RI reflected well the severity of the pancreatic lesions.
- (2) Even in such cases as CT and U.S. didn't demonstrate the abnormal swelling of the pancreas, the scintigraphy showed whole or local defect in the patients with pancreatic cancer. On the contrary, pancreatitis cancer could be ruled out if the pancreatic scintigraphy was normal even though swelling of the pancreas was detected by CT or U.S. Thus, pancreatic scintigraphy is very useful not only to identify the pancreatic lesion but also to discriminate the pancreas from the retroperitoneal tumors.