

L. Digestive Tracts (Liver and Biliary Tract)

Investigation of 30 Hepatocellular Carcinoma Cases Detected During the Observation Period for Chronic Hepatitis or Liver Cirrhosis

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During the last 11 years, we have experienced 30 cases developed into hepatocellular carcinoma in the follow-up of chronic hepatitis or liver cirrhosis.

We have detected 27 hepatocellular carcinoma out of these 30 cases by combined nuclear medicine procedures, such as liver scintigram, α -feto-protein, carcinoembryonic antigen, HBs-antigen, HBs-antibody, except 3 cases with a small nodule (smaller than 1.0×1.0 cm) of hepatocellular carcinoma.

The changes of liver shape and size, spleen and bone marrow visualization on the follow-up scintigrams were analyzed, and also the changes

of AFP, CEA, HBs-antigen and HBs-antibody titers were evaluated.

In 4 cases out of 27, their nodules with hepatocellular carcinoma were successfully resected by operation. The size of the smallest nodule was $4.0 \times 3.5 \times 2.5$ cm.

It was concluded that those combined nuclear medicine procedures were very effective to detect a small hepatocellular carcinoma on its early stage when it would be resectable by surgical operation, and also these procedures should be performed at least one or two times every 6 months during the follow-up of chronic hepatitis and liver cirrhosis.

Diagnostic Efficacy of Multi Nuclear Scintigraphy on the Liver Cancer —Especially, to Detect Primary and Metastatic Liver Cancer—

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From April in 1971 to November in 1977, 1,245 patients (overall 1,410 times) were studied with liver scintigraphy using ^{198}Au -or $^{99\text{m}}\text{Tc}$ -colloid. For this study 550 cases, of which final diagnoses were confirmed by operation, biopsy or necropsy, were picked up.—224 with liver cancer, 114 with the other liver disorders, and 212 with normal liver.

In 242 cases of them space occupying lesions (SOL) were found—in 61 with primary hepatoma, 163 with metastatic liver cancer, and 18 with other miscellaneous conditions. 83.3% of cases with primary hepatoma had solitary or bilateral SOL and 62.2% showed moderately or strongly increased shadow of spleen. On the other hand, 62.1% of cases with metastatic liver cancer had

multiple SOL and 80% showed slight or negative splenic shadow. Cases with the other miscellaneous conditions had no typical findings.

^{67}Ga -citrate scan, from December in 1975 to November in 1977, was studied on 74 patients—14 with hepatocellular carcinoma, 6 with cholangioma, 42 with metastatic liver cancer, and 12 with cirrhosis of the liver in which SOL were suspected. Definite accumulation of the ^{67}Ga was noted in the lesions of 24 out of 74 total cases—all of 14 with hepatocellular carcinoma, 10 of 42 with metastatic carcinoma which histology was identified as the metastasis from the undifferentiated or poorly differentiated type origin. ^{75}Se -selenomethionine scan was studied on 18 cases—2 with hepatocellular carcinoma, 5 with