

contained alpha-fetoprotein over 320 nanograms per ml., while in patients having serum alpha-fetoprotein less than 320 nanograms per ml., only 9% of patients showed definite cold area.

Australia antigen was appeared in about 50% of either cirrhosis or hepatoma patients assayed

with solid phase radioimmuno-method.

A case, diagnosis was made by alpha-fetoprotein assay, hepatic scintigram, and selective angiography, and the hepatoma node with 3 cm. diameter was successfully resected, was reported.

An Application of Radioimmunoassay of α -Fetoprotein to the Liver Scintigraphic Study

Y. SAKAMOTO, K. KIYONO, T. KASUGA, F. NAKANISHI T. WATANABE, T. OHATA,

I. IZUNO, T. WAKO and Y. IMAI

Department of Radiology, Shinshu University, Matsumoto

To detect primary hepatoma, the radioimmunoassay (RIA) of α -fetoprotein (AFP) was used combined with liver scintigraphy and laboratory liver function tests. For this study α -feto-125 kits (supplied by DAINABOT) were used, and the values above 20 ng/ml were evaluated as positive.

Among the sera of 8 hepatoma patients with accurate diagnosis, 6 were positive. One out of 2 negative cases was cholangioma. In 5 out of 6 positive cases, the tumors were found in the upper right quadrant of the liver. AFP could be detected in the sera of 3 out of 12 liver cirrhosis patients (90-2,000 ng/ml).

Small hepatoma under 2 cm in diameter is difficult to detect by liver scintigraphy, and even though such a size of hepatoma is able to detect by the liver angiography, it is often difficult to distinguish hepatoma from hemangioma. There-

fore the authors have to say, that there is a limit to the detection of hepatoma by radiological study, and RIA of AFP is expectable to apply.

When AFP in serum is evaluated as positive, hepatoma exists in high probability, then liver angiography should be indicated for these positive patients.

Even though AFP is negative, still there is a possibility of hepatoma. Many cases of hepatoma showed the typical patterns of liver cirrhosis. Therefore it is necessary to check up liver cirrhosis, particularly in the case of suspected hepatoma, by data processing with likelihood method from the informations of liver scintigraphy, laboratory liver function tests and other clinical findings. Then these suspected cases of liver cirrhosis should be indicated to liver angiography. From these data, primary hepatoma may be diagnosed systematically.

The Relationship with α -Fetoprotein, Hepatic Scintigram and Liver Function

S. MIMOTO and T. MASUOKA

Nippon Kokan Hospital, Kawasaki

Method Hepatic scintigram were studied with ^{198}Au and ^{67}Ga .

Radioimmunoassay of α -fetoprotein were em-

ployed two antibodies method of Abbott Co. And also single radial diffusion method were performed.