

Correlation of Non-Uniform Distribution of Radiopharmaceuticals in the Liver with Chronic Schistosomiasis and its Biopsy Findings

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Eventhough non-uniform distribution of radiopharmaceuticals in the cirrhotic liver was reported frequently in the U. S. incidence of such a case is quite infrequent in Japan.

Cases with chronic schistosomiasis, however, showed certain incidence of such cases. One hundred and eighty-two cases were biopsied both lobes of the liver and comparison of histological construction of the liver with liver scintigram was performed.

Among 182 cases 15 cases (8.2%) showed different pathology in the histology of the specimens obtained from right or left side of the liver. Except one case scan showed non-uniform distribution of the radiopharmaceuticals which is similar to what is called "pseudo tumor".

Liver cirrhosis in the right and normal liver in the left was found in 3 cases. Liver cirrhosis

in the right fibrosis in the left was found also in 3 cases. Fibrosis in the right normal liver tissue in the left was found in 8 cases. Contrary less advanced liver disease in the right than left was found only in 1 case with normal right lobe and fibrotic left lobe.

Rest of 167 cases showed diffuse uniform liver histology and liver scintigram. These cases are consisted form 34 cirrhotic cases, 29 fibrotic cases and 104 normal cases.

These finding is an another unique clinical characteristics of the cases with chronic schistosomiasis japonicum. Frequent incidence of small liver and right lobe defect pattern as was reported before and also these characteristics of non-uniform liver scintigram made the diagnosis of hepatoma among these cases fairly difficult only by scanning procedures.

Liver Scintigram Findings in the Case of Drug Induced Lipidosis

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From January 1970 to September 1972, 183 liver scintigraphies were performed. In this paper, liver scintigram findings of 6 cases of drug in-

duced lipidosis (D.I.L) were reported comparing with those of 20 cases of chronic hepatitis and 23 cases of liver cirrhosis. All cases of DIL had the

past history of treatment for cardiovascular disease with coralgil and showed some characteristic clinical, laboratory and laparoscopic findings. Especially, on electronmicroscopic examination of the biopsy specimens, many dense body like myeline were found in liver cells. The other diseases were also confirmed by laparoscopic and/or histopathological examination.

Liver scintigraphy was performed with Shimazu multi-scintiscanner (3" × 2" crystal, 10 F type of collimator) after intravenous injection of 4 μ Ci ^{198}Au colloid per kilogram of body weight. Simultaneously the half disappearance time ($T_{1/2}$) of the injected activity in the blood was measured with armcounter (Packard).

Average area of the liver of DIL was 225.5 cm^2 , being larger than that of chronic hepatitis

and liver cirrhosis by about 20%. Average right and left width of DIL were 16.6 cm and 12 cm, respectively, and the both figures were larger than those of other two diseases. Referring to right and left width of normal liver reported to be 12.5 cm and 6.7 cm, respectively, by Hisada, both widths in DIL increase and moreover, the percent increase in the left was greater than that in the right. In all cases of DIL, the spleen was visualised on scintigram. These findings were similar to those of amyloidosis only a cases though. On the other hand, average $T_{1/2}$ in forearm was 7.98 minutes in the case of DIL, being between that of chronic hepatitis and liver cirrhosis.

Liver scintigraphy is useful for screening of storage disease, such as DIL and amyloidosis.

Serially Determination of Australia Antigen and Antibody in Clinical Course of Various Liver Diseases

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Serum concentration of Australia antigen and antibody were measured by solid phase radioimmunoassay produced by Abbott Laboratories, in the patients with various liver diseases including 2 cases of fluminant hepatitis, one case of acute hepatitis, 9 cases of subacute hepatitis, 30 cases of chronic hepatitis, 27 cases of liver cirrhosis and 20 cases of hospital controls, with the purpose of elucidating the mechanismus operating in the process to chronic hepatitis from acute hepatitis.

As a conclusion, values of Au-antigen in healthy

carrier showed more high levels than that of patients with chronic hepatitis or liver cirrhosis the values of Au-antibody showed high levels in the patients with fluminant hepatitis, subacute hepatitis and acute hepatitis. And also, both Au-antigen and Au-antibody were simultaneously proved positive in the patients with chronic hepatitis with sublobular hepatic cell necrosis (namely, severe type of piecemeal necrosis). The prognosis of liver diseases with patients in whose serum levels of Au-antigen and antibody showed high value, was unfavorable.