Nonerythropolietic Component of Early Labelled Bilirubin in Patients with Cirrhosis

K. Tarao, O. Endo and K. Fukushima
First Department of Medicine, Yokohama Municipal University School of Medicine, Yokohama

Nonerythropoietic component of early labelled bilirubin was studied in patients with cirrhosis about plasma and bile, after intravenous injection of 2.5 μc of **z**-aminolevurinic acid.

(1) The features of appearance of labelled bilirubin in both serum and bile in patients with cirrhosis showed two peaks, as compared with one peak in normal subjects.

(2) The more the cirrhosis advanced, and the liver was reduced in size, the more the second peak came out later.

(3) In cirrhotic group with large sized liver scintigram, the mean cumulative radioactivity of 1 ml plasma in 4 hours was so large as 167.5 c.p.m./cc X hrs., and peak activity in the bile was also high as compared with the medium sized or extremely reduced sized cirrhosis.

(4) In cirrhotic group with extremely small sized liver scintigram, the mean cumulative radioactivity of plasma in 4 hours was so small as to 86.5 c.p.m./cc X hrs., and that was just 1/2 of the large sized cirrhotic group, and 2/3 of the medium sized group. Also the peak activity in the bile in this group was the lowest of all groups examined.

(5) The above mentioned fact may suggest that in human almost all nonerythropoietic component of early bilirubin will be produced in the liver and that it may consist of two subcomponent.

Studies on Lymphodynamics in the Liver Utilizing Radioactive Human Serum Albumin

H. Nishimura, M. Kumano, A. Matsumoto, I. Narabayashi, T. Maeda and K. Narabayashi
Department of Radiology, Kobe University School of Medicine, Kobe

We have reported that radioactivity of RISA introduced into the hepatic parenchyma can be used as an index of lymphodynamics of the liver.

In the present investigation, the hepatic clearance of RISA was analysed in various hepatic diseases, 30–40 μCi of RISA was percutaneously injected into the hepatic parenchyma in a volume of 0.1 ml. Radioactivity of the injected area was measured by a scintillation counter with NaI crystal during the 48 hours after the injection. The disappearance curve in various hepatic diseases was plotted on semilogalithmic paper.

The radioactivity deminished rapidly during 3 hours after the injection and then gradually decreased.

In this study, the T-1/2 of the second phase was used as an index of lymphodynamics of the liver. The cases studied were chr. hepatitis (7 cases), hepatic cirrhosis (5 cases) and normal liver (8 cases).

In general, the T-1/2 of chr. hepatic diseases was delayed compared to that of the normal cases.

In chronic hepatitis, half time was 24 hours (mean).

In liver cirrlosis, half time was 33 hours (mean). In normal cases was 14 hours (mean).

A close correlation was recognized between