DIFFERENTIAL DIAGNOSIS OF THE DIFFUSE LIVER DISEASE USING THE SPLEEN/LIVER COUNT AND DENSITY RADIO.

Osamu Okubo, Teiichiro Takahasi
Motosuke Yukawa, Masahiro Kubota
Nobuyoshi Muta.
Department of Radiology Sapporo medical collge

We examined the biopsy-proven 110 cases of the liver disease using the S/L ratio

In 81 cases out of 110 cases were mesured the density ratio by densitometer, 29 cases were mesured count ratio using scintipac 200.

Density S/L ratio are followed.

1) Liver cirrhosis 28 cases AP 0.92 PA 1.41
2) Chronic hepatitis active type 16 cases AP 0.60 PA 0.80
3) Chronic hepatitis inactive and acute hepatitis 5 cases AP 0.41 PA 0.50
4) Other disease 32 cases AP 0.39 PA 0.67

Count S/L ratio are followed

1) Liver cirrhosis 8 cases AP 0.78 PA 1.28
2) Chronic hepatitis active type 10 cases AP 1.01
3) Chronic hepatitis inactive type AP 0.44 PA 0.77
4) Liver abscess AP 0.96 PA 1.72
5) Others 9 cases AP 0.30 PA 0.50

We re-evaluated that the S/L ratio is the one of the usefull parameter in the diagnosis of diffuse liver disease.

STUDIES ON THE INTRAHEPATIC DISTRIBUTION OF SPLENIC BLOOD FLOW BY SCINTIPHOTOSPLENOPORTOGRAPHY

Toru Kashiwagi*, Yoshimi Kusumi*, Kazufumi Kimura*, Takenobu Kamada**, Motoaki Schichiri**, Toshihiko Suematsu**, Manabu Masuzawa** and Hiroshi Abe**
*Division of Nuclear Medicine, **First Department of Medicine, Osaka University Medical School, Osaka.

In small group examination of scintiphotosplenoportography(SSP), we have found that splenic flow was not always distributed uniformly to right and left lobes in human liver (1). In the present study, we have reassessed the intrahepatic distribution of splenic flow using SSP in larger group.

The present study was carried out in 46 patients with various disorders, including 39 patients with chronic hepatitis. The patients were studied in the supine position after overnight fast. The scintillation camera was positioned to be close to the upper abdominal area. An injection of less than 2 ml of $^{99m}TcO_4^-$ or ^{133}Xe in saline solution (5 to 15 mCi), was made into the spleen. The method of SSP has been described in detail elsewhere (2). In order to assess the relative thickness of the liver, 200 μCi of ^{198}Au colloid or 3 mCi of ^{99m}Tc phytate was injected into an antecubital vein and a liver scintigram was obtained.

Various patterns of intrahepatic distribution of splenic flow were observed. These patterns were classified into 4 groups. Group I; Homogeneous distribution of splenic flow was observed. Group II; Predominant distribution was observed in the right lobe. Group III; Predominant distribution was observed in the left lobe. Group IV; Heterogeneous distribution in the right and/or left lobes was observed, as if space occupying lesion exists within hepatic lobes. In over all attempts, Groups I, II, III and IV were observed in 52%, 24%, 6% and 18% respectively.

Groups II and III were considered to represent the existence of streamline flow, as well as the previous report (1). The existence of group IV suggests that some factors except streamline flow, such as regional vascular constriction, may be concerned in the intrahepatic distribution of splenic flow.

References

1. Kashiwagi, T., et al:Gastroenterology 69:1292,1975
2. Kashiwagi, T., et al:Gastroenterology 67:668,1974