Scintiphotosplenoportography: Its Clinical Usefulness
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Scintiphotosplenoportography (SSP) was performed in 154 instances in 136 patients by injecting RI bolus such as $^{99m}$TcO$_4^-$ or $^{133}$Xe into the spleen and following its course by scintillation camera. In no patient significant complications such as severe pain or splenic hemorrhage were encountered. Various collaterals were clearly visualized. According to the pattern of collateral flow RI images were classified into 3 patterns (I, II and III), and then each pattern was subdivided into 3 subgroups (a, b, and c).

Pattern I has no portosystemic collaterals. Among this pattern, pattern I-a is the normal course of portal circulation. Pattern I-b shows the tortuous splenic vein. Pattern I-c demonstrates the hepatopetal collaterals. Pattern II has portosystemic collaterals and the flow to the liver. On the other hand pattern III represents the diversion of splenic flow through the portosystemic collaterals and no liver image. Pattern II and III were subdivided according to the direction of collateral flow. In subgroup a, b and c, direction of collateral flow is cephalic, both cephalic and caudal, and caudal respectively. In 48 patients with chronic hepatitis, 8 patients have portosystemic collaterals (17%). In 49 patients with liver cirrhosis, only 4 patients belonged to pattern Ia. Twenty five patients belonged to pattern IIa. Finally portosystemic collaterals were observed in 38 patients (78%). No patient with idiopathic portal hypertension belonged to pattern Ia. In 3 out of 7 patients with carcinoma of the pancreas, pattern Ic was observed.

Therefore, SSP is useful for diagnosis of abnormalities of portal venous system. Further more combining SSP and data processing system permits the quantitative evaluation of portal circulation such as portal circulation time or regional hepatic blood flow.

The Diagnosis of Focal Hepatic Disease and Hepatobiliary Diseases
by Both Nuclear Medicine and Ultrasound
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An electronic scanner (a linear type) was used, and compared with a nuclear medicine image in both focal hepatic disease and hepatobiliary disease.

In focal hepatic disease, the detection ratio of space occupying lesions with ultrasound (80%) was slightly lower than that with nuclear medicine (90%) in 41 patients, although ultrasound could find the focal lesions in three cases which nuclear medicine couldn’t find any lesions. However, ultrasound could decide the existence of focal lesions in equivocal cases with nuclear medicine. In nature of focal lesions, ultrasound showed a great power in diagnosis of cystic disease of the liver, because the evaluation of cystic lesion was easily done by ultrasound. On the other hand, the evaluation among solid lesions, especially between primary hepatoma and secondary hepatic cancer was done by combined RI examinations although a little difference between primary hepatoma and secondary hepatic cancer was found on ultrasound image.

In obstructive jaundice, ultrasound was superior to nuclear medicine, because a intrahepatic bile duct dilatation was easily evaluated by ultrasound. Such findings were found in sixteen out of 18