
The incidence of cholecystolithiasis is about 6% in Japan. Especially the incidence of bilirubin calcium is high. One of causes is cholestasis. It is difficult to find out the cholestasis clinically. The cholestasis is related to contraction of biliary system. So we analyzed relationship between the reaction of biliary system in the hepatobiliary scintigraphy and that of gall-bladder and of serum cholecystokin in due to cause of radionuclide activity in the gall-bladder after injection of "Cosunin". The serum cholecystokin in and the size of gall-bladder were measured by radioimmunoassay and sonography respectively, every ten minutes for one hour after drinking "Intralipid". The subjects were classified in two groups, contractor and non-contractor, by means of hepatobiliary scintigraphy. In the group of contractor, there was positive relationship between serum cholecystokin in and contraction velocity of gall-bladder. In the non-contractor group, correlation between them was negative and serum cholecystokin was increased. So this result suggests that the hepatobiliary scintigraphy is easy and useful examination in the analysis of cholestasis.

BILIARY KINETIC STUDY IN CHRONIC PANCREATITIS USING CHOLESCINTIGRAPHY. H.Itoh, R.Shimoto, K.Murase, Y.Nishiyama, T.Sugawara, M.Katooka, M.Ishine, M.Kawamura, A.Iio and K.Hamamoto. Department of Radiology, Ehime university School of Medicine, Ehime.

Twenty-two cases of chronic pancreatitis which were performed cholecintigraphy using Tc-99m N-Pyridoxyl-5-methyltryptophan (PMT) were studied retrospectively. These cases were divided into three groups on the basis of ERCP findings; 10 cases of MIP, 7 cases of MOP and 5 cases of ADP. There was no difference in the bile flow rate into the gallbladder between chronic pancreatitis and control, but the ejection rate of the gallbladder in chronic pancreatitis was lower than that of control stastically (p<0.05). The appearance time of intestinal image was delayed in chronic pancreatitis and the ratio of no excretion to the intestine at 60 min. increased with proceeding of pancreatitis. The reflux to the hepatic duct was found in 28% of cases with chronic pancreatitis after injection of the gallbladder contracting agent and more frequent in ADP, whereas there was no reflux in MIP and control.


Using hepatobiliary scintigraphy, duodenogastric reflux (DGR) of bile was assessed in the patients with peptic ulcer or gastritis. After a fast for more than 6 hours, the patients received single intravenous injection of 5 mCi of Tc-99m-EHIDA or Tc. The passage of the radionuclide in the hepatobiliary, gastric and intestinal regions was serially monitored with a gamma camera coupled a computer system. Seventy minutes after the injection of the radionuclide, patients were administered pancreozymin or caerulein. Scintigraphically, DGR was observed in 17 of 37 patients with gastric ulcer, 6 of 16 with duodenal ulcer, 8 of 13 with superficial gastritis with comb redness and 2 of 11 with atrophic gastritis. Thirteen of 25 patients with open gastric ulcer and 4 of 12 with gastric ulcer scar showed DGR. In the patients with duodenal ulcer, DGR was seen in 4 of 8 with open ulcer and in 2 of 8 with ulcer scar. In conclusion, in the patients with peptic ulcer, open ulcer group showed a trend of higher frequency of DGR than that of scar group. The same tendency was observed in superficial gastritis group compared with group of atrophic gastritis.


Primary sclerosing cholangitis (PSC) is a rare disease of unknown origin, leading to chronic intermittent cholestasis. Due to its low incidence, insidious clinical onset, and varied clinical picture, diagnosis is often delayed by years. And PSC is sometimes diagnosed falsely as another disease of chronic intermittent cholestasis, primary biliary cirrhosis (PBC). In the present study, the hepatobiliary imaging using Tc-99m diethyl IDA was done in 3 patients with PSC and also in 11 patients with PBC, in order to decide its clinical usefulness for the noninvasive differentiation between PSC and PBC.

Three patients with PSC showed a typical pattern of radionuclide stasis within the area of intrahepatic and/or extrahepatic duct system, representing stenosis on endoscopic retrograde cholangiogram. On the other hand, 11 patients with PBC did not show any radionuclide stasis within the area of intrahepatic and extrahepatic duct system. Therefore, the radionuclide hepatobiliary imaging offers a noninvasive method of investigating patients suspected PSC, leading to earlier diagnosis.