

these circulatory disturbance.

Diagnosis of Hepatobiliary Diseases Using ^{131}I -BSP Retention Ratio (20min/5min) and Scintigraphy

K. UENO, T. ABURANO, Y. SUZUKI, and K. HISADA

Dept. of Nuclear Medicine, School of Medicine, Kanazawa Univ., Kanazawa

In order to get a better diagnostic criteria of jaundices, we examined 51 cases (10 cases; normal, 17; acute and chronic hepatic diseases, 5; cholangiolytic hepatitis, 1; primary billiary cirrhosis, 18; billiary tract diseases) using ^{131}I -BSP blood retention ratio (20min/5min) and serial hepatobiliary scintigraphy. After intravenous injection of ^{131}I -BSP 100 μCi , serial hepatobiliary imagings were obtained at 5, 10, 30, 60, 120, 240 min, 24 hrs, post I.V., and 1 ml of venous blood was drawa at 5, 10, 20 min post I.V., and blood ratention ratio (20min/5min) were calculated.

Results; ^{131}I -BSP blood retention ratio (20min/5min) of various hepatobiliary diseas-es were $20.9 \pm 6.9\%$ in normal cases, $27.5 \pm 14.9\%$ in nonicteric hepatocellular disorder, $68.9 \pm 18.8\%$ in icteric hepatocellular disorder, $61.3 \pm 25.1\%$ in intrahepatic cholestasis, $20.9 \pm 6.0\%$ in nonicteric extrahepatic bile duct diseases, $50.9 \pm 20.1\%$ in icteric extrah-

epatic billiary diseases.

^{131}I -BSP blood retention ratio and serial hepatobiliary scintigraphy were compared with clinical data, and we summarized the diagnostic criteria for the differentiation of hepatobiliary diseases as follows.

If blood retention ratio is over 85%, or 70—85% with excretion into gut on scintigram, it is diagnosed as medical jaundice.

A blood retention ratio between 70—85% without scan evidenee of isotope intestinal excretion indicates extrahepatic complete ob-structive jaundice. A blood retention ratio under 40% with delayed isotope excretion into gut suggests extrahepatic bile duct disease, and blood etention ratio under 40% without delayed intestinal excretion is considered to be normal.

When blood retention ratio between 40—70%, it is impossible to differentiate whether it is a medical jaundice or not.

Tumor Scanning with Co-57-Bleomycin in the Carcinoma of the Liver and Pancreas

S. NAKANO and Y. HASEGAWA

The Center for Adult Diseases, Osaka

S. ISHIGAMI

Department Internal Medicine, Research Institute for Microbial Diseases, Osaka

Tumor scintigram using Co-57-Bleomycin

has been studied with hepatic and pancreatic

carcinomas.

The subjects consist of 24 cases selected from among patients hospitalized at the Center for Adult Diseases between Sep. 1973 and June 1974, and they included 20 cases of hepatic carcinoma and 4 cases of pancreatic carcinoma.

Of these 24 cases 5 cases were confirmed on histological basis, and other cases were diagnosed clinically.

Twenty four hours after the i.v. injection of 500μ Ci of Co-57-Bleomycin, scintigrams in the frontal, lateral and posterior planes were obtained with Toshiba gamma camera model GCA 202. Another scintigram using Au-198-colloid or Se-75-Selenomethionine was obtained subsequently and two scintigrams

were compared.

In 20 cases of hepatic carcinoma, 15 cases (75%) were positive, 4 cases suspicious and one case negative. In 4 cases of pancreatic carcinoma, 2 cases were positive, one case suspicious and one case negative. Three cases of hepatic carcinoma could be detected only on lateral and/or posterior view. By a combination of both Co-57-Bleomycin and Au-198-colloid scintigram, 3 cases of hepatic carcinoma were successfully detected, which were missed with Au colloid scan alone. In one of these cases the tumor was limited to a part of the left lobe which allowed surgical treatment.

Tumor scanning with Co-57-Bleomycin appears to be useful adjunct in the diagnosis of hepatic carcinoma.