cholangioma, 6 with metastatic liver cancer, and 5 with cirrhosis of the liver.

Definite accumulation was noted in the lesion of only one with hepatocellular carcinoma of 18 total cases. The combination studies with both $^{99m}$Tc-

Using Hepatic Scintigraphy to Examine Primary Hepatocellular Carcinoma

*Department of Radiology, **Department of Gastroenterology Surgery, Department of Medicine, Tokyo Women's Medical College

We have discussed the diagnostic value hepatic scintigraphy for Primary Hepatocellular Carcinoma after Hepatectomy.

(Method and Objection) We have researched 15 cases during the last 10 years. The equipment used was TOSHIBA 3 inches dual scanner, 5 inches PICKER MAGNA scanner. Using $^{198}$Au-Colloid, $^{99m}$Tc-phytate. The liver was separated into 4 segments (posterior, anterior, medial, lateral), 2 areas (superior, inferior) and the cancerous part, the non-cancerous part and the size of cancer detected separately by the machine mentioned above.

(Results) Of the 15 cases examined, 11 were of simple tumor, 4 were multiple. For the sizes of tumors vary from $2.0 \times 1.5$ cm to $19.0 \times 11.0$ cm. The probability for correct diagnosis using the machine is 9 out of 15, that is 60%. Only 5 cases were tumor size smaller than 5.0 5.0 cm. The probability for correct diagnosis is 1 in 5, that is 20%. For non-cancerous part, there are 8 cases of liver cirrhosis, and 7 cases of non-cirrhosis. The probability for correct diagnosis for the 8 cases are 50%, and for the 7 cases, 71.4%. There are 4 cases where the tumor is located in 1 segment and 1 area. Here the machine can not correctly diagnose. When tumor is found in 2 segment and in the inferior area, the probability for diagnosis by are machine is 33.3%.

(Conclusion) In relation to the operation, when such a devise as many directions by camera is used sequential venous injection is necessary instead of the traditional methods to obtain a correct diagnosis.

Significance of Liver Scintigraphy from Surgical Point of View: Its Preoperative Evaluation in Patients with Gastrointestinal Cancer

Nobuo OGATA, Yukio NAGAMACHI, Akira TANIGUCHI, Yasuji NISHIDA, Norio AKIYAMA, Mitsuhsa MAEDA, Toshihito HIRASAWA and Takiji NAKAMURA
Department of Surgery I, Gunma University School of Medicine, Maebashi

The preoperative liver scintigraphy using scintiscan camera was performed in 207 patients with digestive diseases. An intravenous injection of $^{131}$I, $^{198}$Au colloid and $^{99m}$Tc was used. Patients suffering from primary hepatoma were excluded in this study. A total of 92 patients with gastrointestinal cancer underwent laparotomy. The site of primary lesions and occurrence of liver metastases (%) were as follows: (a) stomach, 4/52 (7.7%); (b) colon and rectum, 9/28 (32.1%); (c) biliary tract, 2/4 (50%); (d) small intestine, 1/3 (33.3%); (e) esophagus, 0/3 (0%) and pan-