biopsy. The amounts of colloidal radiogold for a single intravenous injection were below the critical dose to allow the measurement of hepatic blood flow. Liver scanning was performed in supine and prone positions (anterior-posterior and posterior-anterior). The setting of the scanning device was made in supine position according to the maximum count rate over the liver and was not altered in the scanning in prone position including the height of the detector from the bed.

1) In acute hepatitis the spleen was not visualized in both of the above scanning as well as in normals even in the cases of reduced hepatic blood flow. In some cases of chronic hepatitis the spleen was visualized in various degree but mostly in slight degree so that definitely only in the posterior scanning. In all cases of liver cirrhosis spleen visualization was positive and markedly in most cases as well as deformance of the liver.

2) Histological findings revealed that in most of the cases of spleen visualization in chronic hepatitis lobular disorganization with increased fibrosis was observed. And in those cases hepatic blood flow was reduced in moderate to marked degree. Some patients with the above histological findings and without spleen visualization was obtained after over several months without evidence of improvements of histological findings of the liver.

3) By heated red cell method or MHP:red cell method, spleen scanning was performed and revealed that in much cases with chronic hepatitis the spleen was enlarged in almost the same degree as in the cases of liver cirrhosis with more enhanced spleen visualization. Therefore the enlargement of the spleen was not appreciated to be primary cause of spleen visualization in liver cirrhosis.

4) As the cause of spleen visualization the increased lienal blood flow resulted from the enhanced intra-and extra hepatic shunts should be considered. However colloidal radiogold below the critical dose was directly injected into the spleen in some cases and thereafter liver scanning was performed. In this procedure more enhanced spleen visualizations were observed than in the cases with usual intravenous injection, in the patients with chronic hepatitis and liver cirrhosis. But in normals spleen visualization was not obtained as in the usual intravenous injection. Therefore, the enhanced function of reticuloocytes in the spleen should be entered into consideration as the cause of spleen visualization in liver scanning of chronic hepatitis and liver cirrhosis.

Liver Scanning and Hepatic Arteriography

T. SASAKI

Radiology Department, Nagoya University, Nagoya

M. KANEKO, C. KIDO and N. SATO

Diag. Radiology Dept., Aichi Cancer Center Hospital

Summary:

The findings obtained from both liver scanning and hepatic arteriography were comparatively studied. The reliability of each method and improvement of diagnostic accuracy with co-application were examined.

The liver scanning is taken following the administration of 200 μCi of 198Au intravenously. The hepatic arteriography is taken serially 2 exposures per second following the injection of 30 c.c. of 76% urografin by the automatic injector under the pressure of 2 Kg/cm².

The cases subjected to study were 34 in total, 11 of which were primary liver cancer (hepatoma), 16 metastatic liver cancer and 7 normal liver cases. The diagnostic discrepancy between liver scintigraphy and hepatic arteriography was found 2 cases in liver scintigraphy and 1 in hepatic arteriography. All other remaining cases were agreed each other in diagnostic findings. The liver scanning showed, however, the lesion only as a homogeneous defect.
without demonstrating the changes in the internal structures. On the other hand, the hepatic arteriography showed the lesion as the direct findings, such as the increase in vascularity and tumor stain. Therefore, the hepatic arteriography showed the details of the internal structures in higher degree when compared with that of liver scanning.

A Comparison of Hepatoscintiscanning and Selective Hepatic Angiography

T. Yamasaki
Department of Radiology, Toranomon Hospital

H. Yasukōchi
Department of Radiology, Branch Hospital, School of Medicine,
Tokyo University, Tokyo

H. Tsuchiya, D. Ishikawa and M. Yamauchi
Department of Radiology, School of Medicine, Tokyo University, Tokyo

The livers of 35 patients were studied by cintiscanning and selective angiography.

In these patients, diagnosis of 20 cases were established by autopsy, liver biopsy, and so on. (metastatic liver tumor 6, primary liver tumor 1, liver cirrhosis 3, Banti’s syndrome 3, polycystic liver 2, Budd Chiari’s syndrome 1, miscellaneous 4).

Results
1. There is no remarkable difference in the detectability of space occupying lesions between liver scanning and selective angiography.
2. Scintiscanning is favorable to know size and extent of space occupying lesions compared with angiography.
3. It is possible to know the kind of space occupying lesion by selective angiography (ex. differential diagnosis of cyst and tumor, vascularity of tumor).
4. Diffuse diseases such as hepatic cirrhosis and Banti’s syndrome are diagnosed in almost cases by each method.
5. Sometimes marginal space occupying lesions of liver are hard to detect by only scintiscan.

In such cases selective angiography give another available information very often.

Clinical Evaluation of Scintiscanning of Abdominal Organs Following Selective Intraarterial Injection of $^{131}$I-MAA, with Special Reference to Comparison with Findings in Arteriography and Parenchymal Scintiscanning

T. Takeda, H. Ueda, H. Yamada, M. Ishii, T. Iwase, K. Kitani

T. Gondaira, H. Tagawa and Y. Sakamoto

The Second Department of Internal Medicine, University of Tokyo, Tokyo

Following selective arteriography according to Seldinger’s technique, $^{131}$I-labeled macroaggregated albumin ($^{131}$I-MAA) in saline was injected selectively into the celiac, superior mesenteric or renal arteries in a total of 24 patients with various hepatic or renal diseases or abdominal tumors, and scintiscanning was performed thereafter as