

I. Liver, Bile Duct, Pancreas

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ARE OBLIQUE VIEWS NECESSARY IN A LIVER SCINTIGRAPHY? K.Koizumi, T.Aburano, H.Bunko, A.Tada, H.Seki, J.Taki, K.Yokoyama, N.Tonami and K.Hisada. Tsuruga City Hospital. Tsuruga and Kanazawa University School of Medicine. Kanazawa.

We evaluated the necessity of oblique views in liver scintigraphy to detect space occupying lesions (SOL). 20 cases having SOL(s) and 84 cases having no SOL confirmed by computed tomography or ultrasonography were reviewed by 3 nuclear medicine experts and 3 freshmen for nuclear medicine. First, 4 standard views were evaluated, and then 6 views adding RAO and LAO views were reevaluated. When an interpretation as having SOL was made, whether the SOL was solitary or multiple was determined.

Freshmen had more tendency toward different interpretation. The maximum difference was 33 cases in a freshman, and the minimum was 10 cases in an expert. From ROC curves, usefulness of oblique views was not observed when interpreted by all interpreters. However, usefulness was slightly observed in the freshmen group. Multiplicity of the SOL was almost unchanged by adding 2 oblique views. RAO view was useful in some cases having SOL in gallbladder fossa or anterior portion of left lobe.

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EVALUATION OF DEFECTS IN LIVER SCINTIGRAM. M.Ohyama, K.Shimabukuro, K.Shirono, H.Sakata, S.Shinohara. Kagoshima University School of Medicine. Kagoshima.

Radionuclide imaging(RI) with Tc-99m phytate was performed to detect hepatic focal lesions in 226 patients. The following results were obtained.

- 1) Correct diagnosis rate was 82%.
- 2) RI was valuable in detecting the mass larger than 3cm in diameter.
- 3) In the analysis of 18 false positive cases, seven false positive results were due to physiological defect of liver, such as porta hepatis or costal impression. Others were caused by 2 intestinal gas, 2 intrahepatic bile duct dilatation, 2 ectopic gall bladder, 2 liver cirrhosis and 3 extra hepatic mass.
- 4) There were 17 false negative. In 13 out of 17 cases, tumor was less than 3cm in diameter. Two tumors were accompanied by liver cirrhosis, and two were located near the physiological defect.
- 5) In nine out of 47 equivocal cases, tumor was confirmed by other examinations. In most these cases, the equivocal judgments were made because of the physiological defect.

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SEMIQUANTITATIVE ANALYSIS OF VARIATION IN THE ANTERIOR LIVER SCINTIGRAPHY WITH PATIENT POSITION - CORRELATION WITH DISEASES. M. Noguchi, S.Ohtsuka, Y.Sasaki, C.Tobari, H.Kurosawa, Y.Maruyama, Y.Miura and M.Hoshino. Toho University, School of Medicine. Tokyo

The appearance of liver scintigraphy varies with patients position and shooting direction by a Y-camera. The degree of the variation was semiquantitatively evaluated comparing anterior liver images taken in supine and sitting positions. The changes were correlated with various liver diseases. The vertical distance between the xiphoid process and lower margin of the right lobe (a-c) or left lobe(a-d) and the area of anterior liver image(s) were measured. The change in the liver shape was also evaluated. Initial study included 100 undefined cases, in which downward displacement in sitting position was shown by mean increase of a-c and a-d by 3.6 and 4.5cm respectively. The size of the liver image increased in sitting position demonstrated by the change of s from 180.6 ± 33 in supine to 199 ± 39.6 cm in sitting position. The marked change in shape was observed in 26% whereas in 22% no change was noticed. In the 76 patients with known diagnosis, no definite correlation was observed between the smallest change in liver position and disease condition. The smallest change in size of the liver (2.9 ± 0.2 cm) was observed in liver cirrhosis in contrast to the largest difference (26 ± 1 cm) in acute hepatitis.

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RADIONUCLIDE EXAMINATION OF THE HEPATOMA. H.Matsuo, S.Suzuki, Y.Koga, M.Katayama. Showa University Fugigaoka Hospital. Tokyo.

In twenty seven cases with hepatoma cases, the comparison of radionuclide scans(RN), computed tomography(CT) and angiography were performed. Hepatoma was diagnosed by autopsy, operation, angiography and/or AFP. In 15 cases(60%) of 25 cases, positive of flip flop sign was observed by liver angiography used Tc-99m colloid. In RN, detectability was higher in Tc-99m colloid scans than in Ga-67 scans, however, by using both scans, the highest detectability was obtained. Comparison of RN and CT, detectability was higher CT than RN. We conclude that it is better to use CT(US) as the first choice in screening of hepatoma and subsequent Ga-67 scan if space occupying lesion suspected.