Liver Scintigraphy of the Cases with Schistosomiasis Japonicum

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A group of 466 cases with positive Schistosomiasis skin test was examined by the liver scanning procedure using 198Au colloid. All cases are from Kofu municipal hospital. For comparison 50 cases without liver disorders from the Univ. of Tokyo Hospital was scanned by the same procedure. In 224 cases the scans revealed characteristic deformities of the liver such as right lobe atrophy or defect pattern and small liver were found. The former finding might mistakenly lead to a diagnosis of malignancy. Liver size was determined by planimetric measurement of the frontal scintigram.

Cases are divided into 3 groups according to the laboratory liver function test and others. Group 1 (142 cases) with no apparent liver disturbance gave a characteristic right lobe atrophy or defect pattern scintigram (41.8%) with decreased liver sizes (mean 147.2 cm²) when compared with normal control with 0% incidence and mean size of 174.0 cm². Group 2 (84 cases) with grade 1 liver damage showed 69.0% incidence of right lobe abnormality and a small liver (mean 130.6 cm). Group 3 (42 cases) with severe cirrhotic liver damage showed right lobe abnormality in 69.0% of cases and a small liver (mean 140.7 cm²). Distribution of sizes of the liver covered a wider range in cases with S. japonica infection. Liver sizes under 150 cm² in the frontal plane were found in 16% of controls, in 64.9% of Group 1 in 65.0% of Group 2 and in 56.4% of group 3. The range of liver sizes was 133.8–228.3 cm² with poisson distribution in controls, 59.3–314.4 cm² in Group 1, 59.3–281.4 cm² in Group 2 and 58.2–314.4 cm² in Group 3. In limited cases patho-anatomical confirmation is now being performed such as by angiography, peritoneoscopy, laparostomy and autopsy.