COMPARATIVE EVALUATION OF Tc-99m LABELED NEW HEPATOBILIARY SCANNING AGENTS, Tc-99m HIDA & Tc-99m-(Sn)-PI WITH SPECIAL EMPHASIS ON CASES OF CONSTITUTIONAL JAUNDICES


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In conclusion with regard to conventional hepatobiliary scans, both Tc-99m HIDA and Tc-99m-(Sn)-PI showed satisfactory results. The images obtained with constitutional jaundice cases suggest that the scans using 2 agents could be of value for the differential diagnosis of constitutional jaundice cases as previously reported by using I-131 labeled compounds.

THE EFFECTS AND LIMIT OF DIAGNOSTIC USE OF Tc-99m HIDA FOR HEPATOBILIARY SYNDROME

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In this report, Tc-99m HIDA was used for morphological and functional diagnosis of hepatobiliary system, and the effects and limits of these application was studied to compare with other technical method; scintigraphy with Phytate, X-ray, echo and biochemical method.

In the morphological studies, Tc-99m HIDA showed the excellent images of hepatobiliary tract and of high diagnostic value and no difference with the scintigraphy of liver using Phytate. There were also some cases of showing the defect in the extra-hepatic bile-duct. But, in cases of severely obstructive jaundiced patients, serum bilirubin levels exceeded 4-6 mg/dl, the liver and biliary system were not well seen. In the diagnosis of gall-stone, X-ray technique was superior to radionuclide imaging. An interesting aspect of HIDA was visualization of the case of constitutional jaundice. Dubin-Johnson syndrome showed a long times retention of the activity in spite of the fast accumulation in the liver. On the other hand, Roter disease was not obtained the image of liver, and Gilbert disease showed normal image. According to these findings, it is believed that the differential diagnosis between these jaundices is possible by the scintigraphic techniques of Tc-99m HIDA.

In the functional studies, uptake ratio and excretion ratio of Tc-99m HIDA in the liver showed the correlation with biochemical data: ICG, T.Bili., GTP, and the possibility of application for diagnosis of obstructive jaundices was suggested.

Furthermore, because of the short half life time, Tc-99m HIDA will be one of the most appreciable radiopharmaceuticals to look at the progress of the diseases and therapy and verify the results after operation of the bile-duct system.