266

DIAGNOSIS OF HEPATIC TUMOR BY MEANS OF EMISSION COMPUTED TOMOGRAPHY (ECT) AND TRANSMISSION COMPUTED TOMOGRAPHY (TCT).

Yasuhiro Yumoto, K. Tokuyama, K. Zinno, H Yamamoto, T. Hongo, M. Morita, T. Ishimitsu (Shikoku cancer center hospital, Matsuyama city) M. Nakamura (Showa Information System) and H. Yamaguchi (Hitachi Madico)

Data obtained with ECT were compared to that of TCT and radionuclide scintigraphy in various liver tumores. Subjects were comprised 66 cases of liver tumor including 15 cases of hepatoma, 33of metastatic liver tumor, 14 of liver cirrhosis and one of healthy control. ECT was performed 30 min after the injection of 6 mCi of Tc-99m phytate on Hitachi's γ-view H with VARICAN data analysing system. Patients were seated on the revolving chair and turned around the center axis manually collecting data of the hepatic radioisotopic images every 10 degree. Reconstruction of the hepatic images was performed with filtered back projection method which was composed of Sheep and Logan filter and exponential function for correcting of absorbtion of the body. ECT is able to demonstrate small plastic ball with 2 cm in diameter in the phatome and also in clinical examination, ECT showes small hepatoma that is visible only on ECT and not on radionuclide scan or TCT. Echography clealyshowed the tumor with 2.1 cm x 1.9 cm in size. ECT yield a sensitivity and specificity of 76 and 97% respectively, data for TCT were the sensitivity and specificity of 74 and 91% respectively. ECT is able to separate the superficial activity from deep right hepatic lesion and improves detection of lesion that are midline in the liver or near the portal region and gall bladder in the liver.