

num; 11 cases of primary lung cancer, 5 cases of metastatic lung cancer, 2 cases of malignant lymphoma and 10 others.

By PHO/CON, localization of ^{67}Ga deposit was divided to 3 groups; 1) mediastinal region, 2) hilar region, 3) lung field. The localization of lesions in each group was compared with the findings of CT image.

In group 1) and 2), mediastinal lymphnodes were tried to identified.

The tomoscan and CT were well correlated in almost all cases. In some post irradiation cases, garium scintigraphy was negative and CT image was able to detect the lesion.

The RI tomoscan, PHO/CON, can facilitate the localization of Ga accumulation by tomographic manner and it appears to be possible to identify subdivided mediastinal lymphnode groups by combination of the tomoscan and CT.

Comparison Studies on Diagnoses of Hepatocellular Carcinoma by Multiplane Tomographic Scanner and Scintillation Camera, and Diagnosis by Computed Tomography

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Forty-nine patients with liver tumors were examined by multiplane tomographic scanner (PHO/CON) and scintillation camera and 8 patients with hepatocellular carcinoma among the above 49 patients were further studied by computed tomography using ACTA 0-100 (CT). Two patients among the above 8 patients were performed autopsy.

PHO/CON was superior to scinticamera in obtaining clearer images of space occupying lesions. The liver lesions were detected in all of the 8 patients with hepatocellular carcinoma by

using PHO/CON and in only 4 patients in the case of CT.

The autopsy disclosed that the hepatic lesions almost corresponded to the cold areas on PHO/CON, while on CT it was often difficult to detect the tumor lesions, because there was probably no clear distinction in X-ray absorption between cancerous lesions and non-cancerous portions. However, clearer outline of the lesions might be detected by using both PHO/CON and in some cases.

Retrospective Comparison of Radionuclide Imaging and Computed Tomography of the Intrahepatic Mass Lesions

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Forty-four patients with intrahepatic mass lesions were proven at either autopsy or surgery, or on angiography, were studied by both radionuclide imaging and computed tomography (CT). These two examinations were performed with intervals less than 2 weeks on both primary and secondary liver cancers and less than 4 weeks on

cystic liver diseases. Of 44 cases, 18 were primary liver cancers (hepatocellular carcinoma: 16, hepatoblastoma: 2), 18 were secondary liver cancers and 8 were cystic liver diseases (simple cyst: 4, polycystic disease: 4).

Radionuclide images were obtained 30 min. after intravenous injection of 2mCi $^{99\text{m}}\text{Tc}$ phytate,