

imum value 60 minutes after the injection in the glioblastoma. In the oligodendroglioma and the epidermoid maximum L/B ratio were obtained 2–3 hours after the injection. On the other hand, in non-neoplastic lesions, such as arachnoiditis, epidural hematoma, brain abscess and so forth,

maximum L/B ratio were obtained 60 minutes after the RI injection.

Thus, it would be concluded that the scanning would be favorably delayed for 60 minutes after the injection of ^{99m}Tc -pertechnetate as a radionuclide.

Comparison of the Radionuclide Imaging and EMI Scan for Detecting Brain Diseases

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The comparison of the radionuclide imaging (RN) and computerized axial tomography (CT) for detecting various brain diseases was performed.

RN was performed with a gamma camera using perchlorate premedication followed by 20 mCi of ^{99m}Tc -pertechnetate.

Dynamic images and standart four views 2 hours after intravenous injection of ^{99m}Tc -pertechnetate were used for comparison. With CT, intravenous contrast medium was sometimes used.

One hundred fifteen patients with brain tumors were reviewed, and 89 out of them were detected with both two studies.

In other 26 patients, 5 were detected only by RN, 8 only by CT and 13 were missed by both. These results mean that CT is able to detect a little bit higher percentage of brain tumors than RN. About the location of the tumors there is no significant difference in detectability between two studies.

In assessing the results of non neoplastic disease in these comparison studies, RN was superior to CT in detecting occlusive cerebrovascular diseases, but CT was superior to RN in the identification of intracerebral hemorrhage, porencephalic cyst, hydrocephalus and cerebral atrophy.

Multilevel Analysis of Isocount Scanning in Brain Tumor

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In the previous reports, the theoretical background and technical details of the isocount scan-

ning were described. Based on clinical experiences of various brain diseases, the newly developed