

this case.

We used Shimazu Scintipack-200 that connected directly with Nuclear Chicago Pho/Gamma HP scintillation camera by on-line. And it was corresponded between crystal side of camera and memory with 64×64 matrix.

If data is cached during t seconds, for example count ratio from intracranial lesion representing by sign Ca and count ratio from normal adjacent brain doing by sign Cb, its difference D is showed $D=t(Ca-Cb)$.

When the difference of Ca-Cb is small namely RI accumulation of lesion is not larger, the difference D is stressed by to have the data store

time long. And it is to subtract $Cb \cdot t$ that is normal brain count, as base count. Namely it is to subtract $Cb \cdot t$ out of each matrix counts. Also to remove the influence of high accumulation in face, it is to make enhancement by separating the magnification into ten levels and displaying, in the maximum of 1.2 to 1.5 times for base count. By the above method, we could stress and clear up the lesion having little accumulation that is difficult to discriminate in original image of phantoms and clinical cases.

About some clinical cases, we showed the contrast of original image and display by computer enhancement.

Multiplane Isotope Scan in Cerebral Lesion —In Comparison with Cerebral Arteriography—

M. KINO, C. KANEHIRA, N. KATSUYAMA, K. KAWAKAMI

Department of Radiology, The Jikei University School of Medicine

The multiplane isotope scanner (Pho/Con) is a newly developed equipment by which twelve images are obtained in 12 different layers simultaneously.

Three hundred cases with various brain lesions were studied by the radionuclide and/or the cerebral arteriography. In 65 cases both Pho/Con scanning and arteriography were performed and the results analyzed.

Both studies gave the same results, positive or negative, in 53 cases, coincidence rate 81.5%, while the results did not coincide with each in 12 cases.

A case of the cerebral infarct and another of tumor involving corpus callosum were demonstrated clearly on brain scintigram, but missed by angiography. On the other hand, ten cases with various lesions were detected only by angiography.

These cases included arteriovenous malformation, epidermoid at the cerebellopontine angle, intraventricular glioma, thalamic tumor, pontine glioma, and others.

The multiplane radionuclide scanning are felt to be especially indicated in deep-seated and posterior fossa lesions.