

to the disc. The minimum times are 800 msec and 100 msec for 64×64 and 32×32 image cells/frame respectively.

An empirical formula correction of counting loss due to overall dead time of the camera-computer system are derived for routine use in dynamic function studies. For example, when 5000

cps/frame is collected by the histogram mode with ^{99m}Tc , ($R=0.45$) the true counting-rate is about 5700 cps/frame which means the correction factor of 14%.

(1) E. Tanaka, N. Nohara, N. Kumano, and M. Kakegawa, Medical Radioisotope Scintigraphy vol. 1 P. (1973) IAEA, Wien

Scintigram Processing and Treatment by Remote Computer Using Telephone Line

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A terminal I/O typewriter was set in our hospital which was connected by telephone line to TOSBAC 40 TSS set in Tokyo University Hospital about 4 km apart from our hospital.

The capacity of TOSBAC 40 TSS which we have not seen will be reported by the members of Computer Division of University Hospital. In this report, we state the program for processing and treatment of scintigrams by the telephone line computer system.

Program consists of three main parts; they are character selecting, smoothing and separation.

The character demonstrates the element of $4\text{mm} \times 5\text{mm}$ of scintigrams by the count level. The count rate is divided into ten equal levels between maximum and minimum count rate. The characters in each level are selected manually, and if the selection is avoided, each level is typed as (#@), (#O), (=X), (#), (*), ('), (+), (.), (),

from highest level.

Separation program prints out the minified scintigram ($1/2 \times 1/2$) with two coordinates in upper and lower sides of scintigram. By selecting two coordinates, the scintigram is divided into two areas and prints out the number of element in certain level, accumulated number of element each two areas and the ratio of activity between two areas.

Smoothing program is weighted average of 13 points neighbouring a certain point and the weight is manually selectable in each neighbouring 12 points.

Each program can be skipped or returned easily.

By these programs, liver spleen ratio, right and left ratio of lungs or thyroids, the effect and correctness of smoothing techniques are examined.