The Automatic Diagnosis of Renogram by Minicomputer System

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1) The method to store the data of renogram into the computer system which was connected on line with usual renogram counters, and to display them on the CRT was studied.

Those curves were same as usual renogram curves, and it was shown that this system was useful in ordinary examination.

2) The method to store the data obtained from scinticamera by simultaneous administration of two nuclides (ex. 99m-Tc-DTPA and 131-I-Hippuran or 197-Hg-Neohydrin and 131-I-Hippuran paired) into the computer system was examined.

Those data were recorded on to the magnetic tape and were displayed on the CRT.

R.O.I (region of interest) renogram, where were on cortex area and pelvis area, had investigated in those series and we can indicate the following results:

99m-Tc-DTPA are taken in Kidneys more quickly but excreted more slowly than 131-Hippuran and 197-Hg-Neohydrin were taken in more slowly than 131-I-Hippuran and there is little excretion of 197-Hg-Neohydrin for one hour.

The other hand 131-I-Hippuran have been excreted almost completely at than time.

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A Stochastic Model of Regional Renograms

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In order to interpret objectively the intra-renal 131-I-hippuran dynamics, a mathematical model was made with respect to 'regional renograms' obtained from the series of scinti-