activity to abnormal collecting curve by computer analyse about region of interest in the intestine and to estimate of renal function disturbance.

Collecting curve of ileal conduit and ureterosigmoidstomy, which showed similarly.

This comparison has been difficult by X-P examination such as infravenous pyelography or usual radioisotope renogram.

Radioisotope renal Angiography with ^{99m}Tc-DMSA.: Computer Analysis of Renal Vascular Phase

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^{99m}Tc-DMSA is a suitable substitute for organomercurial renal imaging agents. Static imaging and dynamic renal vascular flow studies with ^{99m}Tc-DMSA, were performed to evaluate renal hypertension.

1. Methods.

After bolus injection of 10mCi of ^{99m}Tc-DMSA, early rapid-sequential images were stored on the computer system at interval of 1 second for 60 seconds. An early image was displayed on a color TV monitor and superimposed on the static image. Time-activity curves, corresponding to ROI (region of interest) over kidneys and aorta, were obtained and 4 parameters were calculated.

1) Peak to peak time indicating passing time, was calculated by time activity curve of each kidney and aorta.
2) Peak to peak ratio (affected kidney/normal kidney) was obtained.
3) Transit time indicating interval from maximum descending portion to maximum descending portion of first peak, was calculated by differential curve which was obtained by processing time-activity curve.
4) Transit time ratio (kidney/aorta) was calculated.

2. Results.

1) Diagnostic informations were increased by displaying superimposed images.
2) Transit time ratio and peak to peak ratio were increased in the patients with reno-vascular hypertensions.

3. Conclusion.

Our analytical methods of radioisotope renal angiography with ^{99m}Tc-DMSA were found to be usefull aid for differential diagnosis of the reno-vascular hypertension.

Pelvic RI-angiography by ^{99m}Tc-Pertechnetate in Urology

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Pelvic RI angiography was performed in the cases of bladder tumor, prostatic carcinoma and benign prostatic hypertrophy to evaluate tumor gross and tumor state. After rapid injection of ^{99m}Tc-pertechnatate, tumor image was tried to visualize with scinticamera, then analyzed with minicomputer. 35 of 50 cases with bladder tumor showed positive tumor image, which was related to the tumor gross, but not to the tumor stage. Prostatic image was demonstrated in 2 untreated cases of 5 with prostatic carcinoma and in 2 of 10 with benign porstatic hypertrophy. Useful results were also obtained from a few cases of testicular tumors, tuberculosis of the epididymis, mumps orchitis and scrotal hematoma.

Therefore, this simple method would be not