

results thus obtained with this agent with be presented.

Method

Renal function tests are performed on patients with renal diseases admitted to Urology Department of this hospital and renogram using ^{131}I Hippuran and renal scintigram using ^{203}Hg -Chlormerodrin are also obtained. A comparative review is made between scintigram using $^{99\text{m}}\text{Tc}$ -TPAC and that using ^{203}Hg -Chlormerodrin on

the severity of renal function disorder.

Results and Conclusion

$^{99\text{m}}\text{Tc}$ -TPAC is superior to ^{203}Hg -Chlormerodrin, especially in the scanning of severe renal disturbance. Further, $^{99\text{m}}\text{Tc}$ -TPAC can be prepared by a simple procedure and the renal exposure dose is lower than by ^{203}Hg -Chlormerodrin. Therefore, it is expected that this would be widely used in the future as a renal scanning agent.

Clinical Experience with the Tomocamera

A. ISHIBASHI

Department of Urology, Kitasato University School of Medicine, Kanagawa

S. HASHIMOTO, K. NAKAZAWA and K. YODA

Department of Radiology, Kitasato University School of Medicine, Kanagawa

Gamma-camera is now one of the useful tool diagnosing various renal diseases. Recently Anger et al. improved this camera for tomographic use, and it has resulted in modest gains in depth resolution. Since last year we have used Pho/Gamma III tomocamera system (Nuclear Chicago) and studied on the patients who had renal diseases.

Before clinical study, tomocan on the phantom which included the small balls sized 1–3 cm in diameter was performed.

On the tomocan especially two planes near

the Geometric Focal Plane the defects were more sharply outline than on the non-tomocan.

Of 4 kidney patients studied. In a patient with polycystic kidneys the tomocans resolved the small cysts which were not detected by non-tomocans. But in 3 patients with simple cysts and renal calculi which were localised whole layer of the renal tissue the same results as non-tomocans. Therefore the tomographic scanner provided useful information especially in localization of small defect such as one of the small cyst in polycystic kidneys.