damage with mild azotemia, renal image was clearly demonstrated. Severity of DMSA uptake by the kidney might quantitatively correspond to residual cortical function, because DMSA is characteristically accumulated in the cortex.

Clinical Evaluation of Renoscintiphotos, about 1000 cases

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Since May 1972, 1209 renoscintiphotos were carried out in our laboratory. Until last year, renoscintiphotos gradually increased, but this year it slightly decreased. It might be one of the cause that many other scintiscans such as brain, lung and liver scans were performed and its number is rather increased than before.

Actually number of patients performed renoscintiphotos was 852. Of these patients 206 were carried out this examinations two or more times on the same patient. One of the cases with transplanted kidney was carried out nine times because of its many complications.

As renal scanning agent, for dynamic studies 131I-hippuran was used more than 70% of all agents every year. Recently 99mTc-DTPA was used instead of hippuran. For static images 99mTc-PAC had been used but this year 99mTc-DMSA is gradually increased because of its good imaging and convenience for preparation.

The number of cases carried out two or more times on the same patient are as follows; transplanted kidneys 36 cases, hydronephrosis 32, renal tumors 23, renal cysts 23, polycystic kidneys 19 and so forth. In these cases, transplanted kidneys were mostly examined by dynamic studies. Tumors and cysts were diagnosed by static images. The detection of complication after renal transplantation dynamic study using 99mTc-DTPA and 131I-hippuran is more useful than static images. On the other hand, detection of space occupying lesion by static images using 99mTc-DMSA and 99mTc-PAC are very valuable for diagnosis of renal tumor and cyst.

Lastly nine renal scanning agents which were used in our laboratory are compared each other. For dynamic studies 99mTc-DTPA, for static images 99mTc-DMSA and for perfusion phase in other words vascular phase 99mTc labeled agents are most useful, respectively.