

position. Renograms obtained revealed abnormal tracings bilaterally with delayed excretion phase, and the abnormalities varied to the degree of the severity of this disturbance. In most severe cases, renogram tracings revealed rising slopes on the both sides, and

then descending slopes appeared as the children recovered from the shock condition. Thus, renography seems to be a valuable test to know the state of occurrence and recovery of orthostatic dysregulation.

Clinical Evaluation of Renograms in Urology

A. ISHIBASHI

Department of Urology, The Jikei University School of Medicine, Tokyo

Unilateral renal disease is a frequently encountered disease in urology.

Therefore the split renal function test, especially renography, has become one of the most important and rewarding test in recent years.

Clinical efficiency of the renography was evaluated on various G U diseases, hydronephrosis and non-visualizing kidneys, in particular concerning diagnosis and prognosis.

The non-visualized kidney referred here was defined as the kidney which revealed no excretory pyelograms by routine IVP.

In assessing the renograms, obtained patterns were classified into six types, namely normal N-type, non-functioning L-type and four intermediate-type, M₁, M₁, M₂ and M_m.

Of the non-visualizing kidneys, the L-type renogram indicated poor prognosis in general,

while the M₁-type resulted in poor prognosis also in approximately 50% of the cases. All the remaining patterns and up with good prognosis.

It was of interest that some of the L-type patients (non-functioning in renography) showed positive renoscintigrams at times. This fact was presumably due to difficult positioning of the detector.

By following the repeated renograms in sequence, prognosis of the hydronephrotic patients could be better known at earlier stage. This was believed to be a better way to tell each patient's out-come than series of IVP.

In summary, it was shown that the renograms could be useful adjuncts in functional recovery of the urological diseases, particularly of hydronephrosis and non-visualizing kidneys.

The Renogram Test in Gynaecology

S. IWAI and H. MIYASAKA

The Department of Gynaecology & Obstetrics, The Faculty of Medicine, Shinshu University, Matsumoto

We have had a survey concerning the renogram utilization in gynaecologic field by direct mail questioning for 49 hospitals of medical school. From the survey it was found that the renogram being applied in most hospitals

as a laboratory test of the cervical carcinoma of the uterus, and in several hospitals it being applied for the diagnosis of the toxemia of pregnancy. The routine testing of renogram was done only in 10 hospitals. The opinions

for the renogram test was summarized as follows: 1) it is good test for screening, 2) it is used combined with other tests, 3) conditions of measuring and analysis of waves should be done under the standardized method.

The followings were our result of the renogram test for the patients with the cervical carcinoma of the uterus. N-type of renogram according to the classification by Machida and Seki was found in 77 out of 121 cases tested at the time of hospitalization. The other cases showed the unilateral or bilateral delay of secretion. The cases which showed the delay of secretion was much more found in the advanced stadium of the disease and the positive correlation was seen in both parameters.

The renogram test after the surgical operation and radiotherapy against the cervical carcinoma showed marked difference. Eighty per cent of the N-type cases at the hospitaliza-

tion changed to M₂-type after 2 weeks from the surgical operation, and then gradually they recovered to N-type, but still 10 per cent remained M₂-type even after 9-14 weeks. By the radiotherapy, only 6.7 per cent showed slight disturbances in renogram after the therapy.

The renogram of the 4 cases of pelvic recidivation showed L-type in 1 case and M₂-type in 3 cases. So the renogram seems to be useful for the diagnosis of the pelvic recidivation, of course this is not decisive and the combination with other tests is necessary.

The all cases complicated with ureterovaginal fistula showed high disturbances of secretion in renogram which coincide with the side of the fistula. So it seems that the renogram is diagnostic on the decision of the side of the fistula and the time of ureterostomia.

Scintillation Camera Renography in the Renal Function Studies of Human Renal Allografts

T. KISHIMOTO

The Department of Urology, Faculty of Medicine, University of Tokyo, Tokyo

Renal homotransplantations were performed in 9 patients (10 times) during the past 3 years at the Department of Urology, Faculty of Medicine, The University of Tokyo, Japan.

Serial renograms were made in these patients to follow up the renal function, especially to distinguish between the various complications.

Deterioration of renal function in the renal homotransplants poses the question of rejection, arterial occlusion or ureteral obstruction.

It seemed reasonable that the combination of renography and scintillation scanning, already used in a variety of clinical conditions, would supply information about the renal function that could not be obtained from either procedure alone.

Our technic is designed to visualize the transplanted kidney and bladder separately.

Concomitant with the intravenous injection of 200 microcuries of labeled Hippuran, the scaler is activated and the film exposed.

A combination of one-minute counts and two-minute scintiphotos (scintillation camera renography) permits the plotting of a renogram curve and assures accumulation of sufficient information on film to permit direct monitoring of the passage of labeled Hippuran.

In some patients, the diagnosis of obstructive diseases were suggested by renograms, but were ruled out by serial scintiphotos which showed labeled Hippuran accumulating in the bladder.

Scintillation camera renography represents a significant advance over conventional renogram studies in the evaluation of renal homotransplants.