

over 50mg per 100ml. On such cases, the isotope scanning can be safely done.

When there is any doubt about the extent of the renal parenchymal damage, the radioisotope scanning supplies extra information unobtainable by the regular excretory urography.

6) Staghorn calculi

The patient with large cast stones in the kidney often shows reduced renal function and the renal pelvic becomes small. And it is often difficult to identify the focal lesion by the excretory urography. The renal scanning gives the extra information of the sites where the function is reduced. The scanning also help to decide where incision should be made to remove the stone.

7) Obstructive hydronephrosis of the upper urinary tract

Both an excretory urography and a retro-

grade pyelography fail to show exactly a renal obstructive disorder. In such cases, the renal scanning is helpful in discovering associated renal abnormalities.

Aortography and radiorenography beside the renal scintigraphy are very useful and provide better understandings in selecting palliative or radical method.

In conclusion:

This study was mainly undertaken to evaluate both the X-P urographies and subsequent radioisotope scannings, made on approximately 300 patients.

The scanning added new informations when destruction, displacement, or disturbance of the proximal convoluted mass were present. The scanning is characteristically simple method as a regional renal function test without any side effect.

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The author has studied comparative value of pyelography, renal angiography and renal scintiscan in renal disorders.

An attempt was made to determine in what situations the scan may contribute to the radiological evaluation of various renal diseases.

Mercury 203 or 197 (labelled) chlormerodrin was used. Scanning procedure was performed 1 to 2 hours following injection of mercury tagged chlormerodrin.

The results obtained from this study suggest clinical advantages of renoscintigram in the following conditions;

- 1) congenital abnormality
- 2) substandard rentgenographic examination
- 3) evaluation of recovery of involved kidney after surgical procedure for ob-

structive uropathy

4) vascular disorder

5) renal tumor (primary or metastatic)

In the detection of space occupying lesions of 2cm or less, using Alderson's phantom, the scintiscan appeared normal. In a patient with a solitary renal cyst of 2.5cm in diameter, the space occupying lesion was detected with some difficulty. One may conclude from this study that the renoscintiscan does not replace either pyelography or angiography in the evaluation of renal disorders. But the renoscintiscan is of significant value in detection of impaired renal function. It is another useful armamentarium of radiologists and in certain cases may be additional useful in information. Development and wide-spread use of stationary device (Scintillation camera) will improve clinical values of renoscintigram.