

Renal Scanning for Polycystic renal Disease

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Twenty-five patients of polycystic kidney disease were studied by renal scanning and I.V.P. and R.P. Patient were 18 males and 7 females with an age range of 26 to 64 years. An average of them were 41 years.

Renal scanning were started 1-3 hours after intravenous administration of 100-200 μ Ci of ^{203}Hg chlormerodrin. In renal scanning 23 patients had bilateral abnormaly enlarged kidney. 24 cases had bilateral cold nodule. The size of cold nodule was over 1.5 cm. in diameter in our study.

23 cases out of 25 were remarkably deter-

mined by renal scanning. Another one case had multiple cold noddles without enlarged kidney.

In X-ray film diagnosis especially I.V.P. R.P., 5 cases were unremarkably determined. Other 3 cases were found to be normal. The age range of these 8 patient were younger.

The ^{203}Hg chlormerodrin renal scan appears to be highly sensitive and useful examination for the evaluation of patient with polycystic kidney disease. It should be more excellent study than X-ray diagnosis, especially I.V.P. R.P.

Radioisotope Placentography Using $^{99\text{m}}\text{Tc}$ -Pertechnetate and $^{113\text{m}}\text{In}$ -Microcolloid

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Radioisotope placentography have been performed gradually in our country. This is the result of placentography using $^{99\text{m}}\text{Tc}$ -HSA, $^{99\text{m}}\text{Tc}$ -pertechnetate and $^{113\text{m}}\text{In}$ -microcolloid performed at the Tokyo Women's Medical College hospital.

Method and Material Between December 1969 and October 1970, radioisotope placentography was performed using $^{99\text{m}}\text{Tc}$ -HSA, $^{99\text{m}}\text{Tc}$ -pertechnetate and $^{113\text{m}}\text{In}$ -microcolloid in 43 patients; 3 patients with $^{99\text{m}}\text{Tc}$ -HSA, 23 with $^{99\text{m}}\text{Tc}$ -pertechnetate and 17 with $^{113\text{m}}\text{In}$ -microcolloid.

The indication;

- (1) ante-partum hemorrhage
- (2) floating head

(3) persistent breech presentation

(4) suspected hydatiform mole

(5) suspected fetal death

$^{113\text{m}}\text{In}$ -microcolloid was prepared by using Hisada's method. $^{99\text{m}}\text{Tc}$ -HSA was prepared under Persson's method. 30-60 minutes prior to the examination, potassium perchlorate 200 mgm was given orally to block maternal and fetal thyroidal uptake of $^{99\text{m}}\text{Tc}$. An angertype scintillation camera with 13.5 inch ϕ scintillator was used. Routinely two anteroposterior views and one lateral view were taken in supine position. 1 mCi of radiopharmaceutics was injected into an ante cubital vein, and scintiphotography was begun right after injection. The result was analyzed to rule out

or in the abdominal position of placenta. Total examination time for radioisotope placentography was approximately 30 minutes.

RESULTS

Following results of radioisotope placentography are obtained normally located placenta 32, low lying placenta 5, placenta previa 2. The placenta implantation was confirmed at the time of delivery in 22 cases. One scintiphotographically diagnosed placenta previa turned out to be low lying placenta by cesarean section. The accuracy of diagnosing placenta previa by scintiphotography was 96%.

DISCUSSION

From our experience we recommend ^{113}mIn -microcolloid placentography rather than $^{99\text{m}}\text{Tc}$ -pertechnetate by following reasons;

- (1) The uptake of ^{113}mIn by the placenta is greater.
- (2) ^{113}mIn has higher energy.
- (3) The urinary excretion of ^{113}mIn -microcolloid is lower.

Intra uterine or vaginal marker are essential in diagnosing the previa and low lying placenta, to know the position of internal ostium. The method is safe, accurate, painless and relatively simple to perform. The maternal and fetal radiation dosage is low.