

## Studies on the Tubal Patency Test with Radioactive Colloidal Gold

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One mCi of radioactive colloidal gold was injected into the peritoneal cavity of the rabbit. After 3, 6, 12, 24, 48 hours, radioactivities of the ovarian surface and uterine cavity were measured. The ratio of these two cpm means tubal transportability, which is accelerated by estrogen and ovulation.

Ninety-three patients were examined by the administration of 10 ml of physiologic saline solution containing 50  $\mu$ Ci of  $^{198}\text{Au}$  through anterior abdominal wall or posterior vaginal fornix, and counted by means of Geiger-Misler counter after extruding gauzes

out of cervical canal every 24 and 48 hours respectively. 48 cases were  $^{198}\text{Au}$  positive, 42 cases were negative, and 4 uncertain. These results were almost corresponded with those of hysterosalpingography and Rubin's test.

At the phase of ovulation, the count of cervical gauze was relatively high. Probably this means active tubal transport during ovulatory phase. Among the patients who underwent tubal plastic operations,  $^{198}\text{Au}$  tests were frequently negative in spite of the evidence of tubal patency by other methods.

No remarkable side effects were observed.

## Diagnostic Application of Renogram in Patients with Ureteral Fistulae and Recurrence of Carcinoma of the Uterine Cervix

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Radioisotope renograms were carried out in 13 patients with postoperative ureteral fistulae and 8 cases with recurrence of carcinoma of the uterine cervix, for the purpose of the diagnostic evaluation of the urinary tract dysfunction.

There were still 74.1 per cent of high degree dysfunctions of the urinary tract during the postoperative 8 through 15 days, but most of them were temporary and 68.2 per cent of the urinary tract after the treatment became improvement to the previous normal condition. Reviewing the cases of high degree dysfunctions, there were 6 cases with ureteral fistula in the past history. The renograms in 13 cases of ureteral fistula revealed N type of 11.5 per cent, ME of 13.3 and M2 of 73.2, which meant, in short, the remarkable

delayed excretion or no excretion and non-functioning kidney in several cases. The renogram is very useful not only for estimating occurrence of ureteral fistula through the postoperative course, but also for deciding prognosis of ureteral fistula, if any management were not considered.

In cases of recurrence of carcinoma of the uterine cervix, it is true that the urinary tract dysfunctions are recognized sooner or later. The renograms of recurrence exhibited the remarkable abnormalities such as N type of 18.7 per cent, ME, M2 12.5 respectively and L 31.2. From the fact that patients with recurrent carcinoma showed 62.5 per cent of non-functioning kidney, attention should be paid for that urologic complications such as uremia play a role in causes of death.