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INTRAPERITONEAL ADMINISTRATION OF Au-198 COLLOID IN POSTOPERATIVE PATIENTS WITH LOW STAGE OVARIAN CANCER OR CORPUS UTERI CANCER. K. Koizumi and I. Tatsuno. Department of Radiology, Kanazawa National Hospital. Kanazawa.

We have tried to administer Au-198 colloid intraperitoneally to 7 cases of ovarian cancer and 7 cases of corpus uteri cancer in low stage after operation. Our purpose is rather prophylactic use of gold and therefore administered dose is 30-50 mCi per each patient. We use sprinkler tubes to obtain homogeneous RI distribution. We have experienced no severe side effects yet. However this method seems to be effective now, more experiences and farther follow-up are necessary.

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RESULTS OF THE I-131 THERAPY FOR POSTOPERATIVE RECURRENT HYPERTHYROIDISM. S.Kumeda, M.Makiuchi, M.Miyakawa, T.Iwasa, O.Senga, S.Kobayashi, G.Kaneko and R.Furihata. Second Department of Surgery, Shinshu University, Matsumoto.

I-131 therapy was performed on 33 patients with post-thyroidectomy recurrent hyperthyroidism in the period from 1966 to 1978. 32 of them (97%) were evaluated for their responses to I-131. The mean age was 35.5 years, and 26 patients were female. Estimated goiter weights ranged from 25 to 70g. The mean dosage of I-131 was 5.25mCi and this was 119.3 microcuries of I-131 per gram of thyroid tissue. Within a half year of treatment, only 18 percent were euthyroid and most of the patients were hyperthyroid. Within 1yr, 52 percent were euthyroid and within 2yrs, 72 percent were euthyroid. After this, the cure rate was maintained at about 70%. On the other hand, after 4yrs of treatment, the first hypothyroid was recognized. Comparative study of our data and the results of I-131 therapy alone were performed and it is concluded that the patients with post-thyroidectomy hyperthyroidism had the tendency of lower sensitivity to I-131 therapy. However, as a therapy for post-thyroidectomy hyperthyroidism, I-131 therapy is the most useful.

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SHORT TERM RESULT OF LOW DOSE ^{131}I THERAPY OF GRAVES' DISEASE. N.Hamada, K.Ito, T.Mimura, E.Ino, H.Mori, N.Momotani, Y.Nishikawa, Y.Ban and T.Tsuchiya. Ito Hospital and University of Occupational and Environmental Health, Japan. Tokyo and Kitakyushu.

The 3 years results of ^{131}I treatment were analyzed in 418 hyperthyroid patients treated with an averaged ^{131}I dose of 3500 rad from 1975 to 1976. All patients received goitrogen therapy in order to help relieve the symptoms of their disease earlier than if radio-iodine therapy alone were used. The results of 289 patients with single therapy (ST) and 129 patients with multiple therapy (MT) were shown in Table. The size of goiter and ill period had significant influence on the result of treatment.

	Hyper-	Eu-	Hypothyroidism	
ST	34	60	6	%
MT	50	47	3	%

In comparison with 3 years results of moderate (7500 rad) ^{131}I dose therapy*, the following conclusions were obtained: 1) It is recommended that initial dose should be low (3500 rad) because a) the incidence of hypothyroidism was significantly lower 3 years after low dose therapy than moderate dose therapy, b) 173 (41 %) out of 418 patients were euthyroid, c) multiple therapy did not increase the incidence of hypothyroidism. 2) It is necessary to regulate the dose of ^{131}I by referring to size of goiter, ill period and other factors.

* N.Hamada et al.: Jap. J. Nucl. Med. 16(8)

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RADIATION DOSE TO THE ABDOMINAL WALL AFTER A LARGE DOSE OF I-131-SOLUTION AND RADIATION DOSE TO THE GASTRIC WALL AFTER A LARGE DOSE OF I-131-CAPSULE. H. Oyamada, H. Fukukita, S. Terui, K. Nagaiwa, H. Kawai, and K. Kawachi. National Cancer Center, Tokyo; National Institute of Radiological Sciences, Chiba

1) Radiation doses to the abdominal skin surface were measured by TLD in 4 patients after a large dose of I-131-solution at 8 points which were determined by dividing the circumference equally at the mid height between xyphoid and umbilicus. Doses of I-131-solution were 160, 194, 195, and 207 mCi, respectively. TLD chips were put on the above-mentioned 8 points with adhesive plasters. The measurement period was 3 weeks in all but one on whom the measurement was suspended at the end of 2 weeks due to a rapid clearance. All the patients had functioning pulmonary metastases from thyroid cancer. The highest value was 37.3 rem at the right latero-posterior point.

2) We estimated gamma doses to the gastric wall from I-131-capsule (50 mCi) in 6 patients on the bases of pilot studies with the test capsules containing 1 to 5 mCi of I-131 at the supine position under scintillation camera for a period of 1 hour except one patient on whom the test was suspended at 30 minutes because of early clearance. In one patient, serial scintiscamera images showed almost no movement and very slow dissolution of the capsule.

Dose calculation was done by scintipac-1200. Estimated doses were as follows: 189.6, 176.1, 133.5, 107.2, and 114.8 rad per 1 hour and 35.3 rad per 30 minutes at the distance of 0.5 cm, which was arbitrary range.