ocunter. The rats, were divided into three groups:

1. control group
2. group I (thyroxine was administered 300 μg per day for a week)
3. gorup II (thyroxine was administered 300 μg per day for two weeks)

Results.

1. Hemesynthetase activity in hyperthroidism was as low as one sixth of normals.
2. Plasma iron disappearance half-time (PIDT 1/2) was as follows:

control: 97.0±20.0 min.
group I: 104.0±23.5 min.
group II: 64.7±20.5 min.

PIDT 1/2 of group II was faster than control. These differences were stastically significant ($P<0.01$). But htere was no significant difference group I and controls. Percentage of iron utilization was as follows:

Control: 82.1±10.1%
group I: 85.4± 8.1%
group II: 88.3± 9.7%

These differences were not significant.

3. PIDT 1/2 and percentage of red cell utilization in two hyperthroid patients were faster and increased, as simulated with iron deficiency anemia.

The Treatment of the Thyroid Cancer with Radioactive Iodine

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We reported our clinical examples in treating distant metastasis of the thyroid tumors with radioactive iodine. We treated 4 patients with radioactive iodine. Of the 4 patients, 1 had papillary adenocarcinoma, 1 had follicular carcinoma, 1 had trabecular carcinoma, and 1 had tublar adenoma (so-called malignant adenoma). Out of them, in 3 cases our treatment with radioactive iocine were effective on their X-ray films.

We consider that radioactive iodine is an important therapeutic agent in selected cases of metastatic thyroid cancer.

Tissue Concentration of ^{131}I-Toluidine Blue in Rats and Dogs with Special Refenrence to the Parathyroid Concentrations by Intracardiac and Intravenous Administration

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Tissue concentration of ^{131}I-toluidine blue was studied in rats and dogs after intracardiac and intravenous injection. The parathyroid-thyroid ratio and parathyroid-neck muscle ratio was significantly higher in rats only after intracardiac injection. Neither intracardiac nor intravenous injection of ^{131}I-toluidine blue (including infusion) gave a high parathyroid-thyroid ratio in dogs as compared to intravenous injection in rats.