

chaise method, another cumulative labeling method. On the thyroid, however, the mitotic figures are observed very rarely, so that the mitosis chaise method is not able to be applied, and the cumulative labeling method was chosen to this experiment. $2 \mu\text{Ci/g}$ of ^3H thymidine was given intraperitoneally for male rats in very 6 hours. The labeling index

for all epithelial cells was estimated until 22 days after the first injection. The straight line drawn on each plot goes up very slowly and does not reach to plateau. Therefore, the exact generation time could not be calculated in this method. But it can be said that it may be over 42.5 days.

A Study of ^{75}Se -Selenomethionine Scanning on Secondary Hyperthyroidism

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The subject was an 83 year old woman who had been made a diagnosis of secondary hyperthyroidism due to renal function impairment by a physician of our hospital. We injected intravenously $300 \mu\text{Ci}$ ^{75}Se -selenomethionine to the patient without any premedication. Scans were made one and two hours following injection.

The scintigram revealed a small concentration of ^{75}Se -selenomethionine at the site of the left upper lesion of thyroid gland. We evaluated this hot area as the scintigram of a parathyroid gland. The patient was died unfortunately after 140 days of this study and was made autopsy. The diagnosis of autopsy was made secondary hyperparathyroidism due to chronic renal inefficiency. And we found four tumors parathyroidglands at the neck.

One of them located at the left upper lesion of the neck coinciding with the hot

spot of the scintigram of ^{75}Se -selenomethionine was the largest.

But histological examination of this tumor revealed lymph node, the others were parathyroid gland which had evidence of hyperparathyroidism.

Then we counted radioactivity level of these four tumors with scintillation counter.

The results were that the lymph node which showed the hot area on scintigram had the highest radioactivity per tissue weight than parathyroid gland. Abdominal lymph node and the another lymph node of the neck were counted radioactivity as control study.

We obtained these lymph node had higher radioactivity than parathyroidglands.

The results suggest that concentration of ^{75}Se -selenomethionine is appeared the lymph node as same degree as the parathyroidgland when it passed relatively long time after injection of isotope.