

and 85% after 15–20 years. Fifty percent of patients indicated T_3 value under 0.8 ng/ml and 39% indicated T_4 value under 4 $\mu\text{g}/\text{dl}$ after 15–20 years. The incidences of abnormally low T_3 and T_4 values were between incidence of hypothyroidism diagnosed by clinical symptoms and that of abnormally high value of TSH.

7) Thyroid crisis immediately after ^{131}I therapy,

transient exacerbations of hyperthyroidism and hypoparathyroidism were not observed, and in addition leukemia or thyroid cancer as late complications were not observed in any patients. Difference in sex was not seen in the 126 children of whom mothers had conceived them in more than one year after ^{131}I therapy. Any of these children except the one child with atrial septal defect were healthy.

Thyroidal Function and Seasonal Change of ^{131}I - T_3 Resin Sponge Uptake

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To investigate the seasonal change of thyroidal function, ^{131}I -triiodothyronine resin sponge uptake (Triosorb, RSU) of serum of healthy male and female adults was measured in summer and winter. RSU was significantly higher in summer than in winter, regarding the mean value in groups in both seasons and the difference of both values between in summer and winter of each individuals as well.

In a series of male volunteers, the measurement of RSU was monthly performed simultaneously with those of PBI, total cholesterol and total protein contents in blood serum. RSU was higher in summer (from June to August) than in winter (from December to February). PBI was lower in

summer than in winter, but statistically not significant. Total cholesterol and total protein were significantly lower in summer.

In the other series of male adults, RSU and effective thyroxine ratio (Resomat-ETR) were concurrently measured and both were significantly higher in summer than in winter, while diphasic with peak values in July and November.

As the results of the above mentioned data, it should be concluded that the amount of thyroid hormone in circulating blood be higher in summer than in winter, while the higher value of RSU in summer may be partly due to lower blood concentration in summer.

Radioimmunoassay of Calcitonin in Various Thyroid Disease

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Plasma calcitonin levels were measured by a radioimmunoassay before and after an infusion of

calcium in 12 patients with simple goiter, 13 with Graves' disease, 19 with chronic thyroiditis, 1