

VII. Thyroid and Parathyroid

Statistic Studies on the Symptoms of Thyroid Diseases

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The purpose of this study is to analyse the reasoning processes inherent in medical diagnosis of thyroid diseases, especially for the use of computers as an aid to diagnosis.

At this time, the basic data for this purpose were collected and the difference between the races was tried to find.

1) Number of patients used in this study was 1001 cases (from 1966 to 1970) with suspected thyroid diseases in which adequate followup information was available in our clinic.

2) Data about the signs, symptoms, laboratory tests shown in the list below were collected: age, sex, nervousness, heart sensitivity, increased sweating, increased appetite, weight loss, warm moist skin, fine finger tremor, lethargic movements, cold sensitivity, decreased sweating, decreased appetite, weight gain, increased lethargy, dry coarse skin, facial edema, pain in thyroid gland, eye signs, BMR, 3 hour ^{131}I -uptake, 24 hours ^{131}I -uptake, triosorb (T_3), TBG (T_4), T_7 and so on.

3) Testing the occurrence rate of thyroid disease in sex and ages, the difference was proved statistically in patients with hyperthyroidism, hypothyroidism, simple goiter, or thyroid cancer.

4) The results of signs, symptoms and laboratory tests of 1001 cases were compared to the data presented by L. B. Lusted 1968, and the difference between races (Japanese and Americans) was tested statistically.

The items in which the difference was found in races were nervousness, weight loss, finger tremor, facial edema in hyperthyroidism, and dry coarse skin, decreased sweating in hypothyroidism. As the result of laboratory data, in simple goiter, ^{131}I -24 uptake in Japanese was lower and triosorb was higher. In hyperthyroidism 29.7% of Americans and 59.2% of Japanese showed over +45% BMR, while, 25% of Americans and 1% of Japanese were found in less than -40% in hypothyroidism. The other test data showed less change in Japan than that in Americans.

Studies on Proliferation of Follicular Epithelium of the Thyroid Using ^3H -Thymidine Autoradiography

Part 3 —On the Generation Time of Thyroid Epithelium of Rat—

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In the previous report it was confirmed using the ^3H thymidine labeling method that the thyroid follicle develop from immature

follicle to large mature follicle. There are two possible means to estimate the generation time of thyroid epithelium; one is mitosis