

### Medical Matters.

#### STATUS LYMPHATICUS AND "THYMUS DEATH."

The *Lancet* reports the gist of an interesting paper, presented by Professor John Berg to the Swedish Medical Society, on a case of Graves' Disease, complicated by Enlargement of the Thymus, and death occurring shortly after operation, which gave rise to an interesting discussion on the nature of the so-called status lymphaticus and thymus death. Professor T. August Hammar said that the question was whether these cases of sudden death were due, directly or indirectly, to the thymus. In a series of cases of sudden so-called thymus death the thymus gland was found enlarged. In another small series of cases thymopexia or extirpation of the thymus had more or less fully done away with the respiratory difficulties of which the patients were complaining. These two classes of cases suggested certainly that the thymus gland might have something to do with the sudden occurrence of death, as by pressure on the trachea or other important organs. But a possibly larger number of cases of "thymus deaths" in which the thymus gland was found of normal size or smaller than normal have been described. For these cases the pressure theory is not satisfactory, and other explanations have been proposed, assuming either a general "status lymphaticus," or the formation of unknown toxic substances acting directly on the heart. Professor Hammar thought that he could justify a theory which would hold good for all cases. It is probable that the thymus represents a gland with an internal secretion. Experience has shown that all glands of this description form one functional symptom, so that disorders in the function of one gland involve derangement in the function of one or more of the other glands. Still, unpublished researches have shown that the involution of the thymus is influenced by the sexual glands. Thus it would appear that early castration brings about hyperplasia of the parenchyma of the thymus. But derangements of other ductless glands, for instance, of the thyroid, may cause a hyperplasia of the thymus. From recent researches of Yonsson it is known that inanition or insufficient nutrition causes an extremely rapid and thorough involution of the thymus gland. It is further a well-known fact that prolonged ingestion of thyroid substance produces rapid emaciation. Now certain unfinished investigations of Utterström show that this emaciation may be brought to a far more pronounced degree than that produced by inanition without affecting the thymus,

which gland has even in some cases proved to be enlarged, as also the lymph nodes and other lymphatic organs. Professor Hammar thought it therefore possible that the derangement in the function of the thyroid in Graves's disease brings about alterations (perhaps of a toxic nature) of the general metabolism, and that it is these alterations which on one hand produce the anatomical anomalies comprised under the denomination "status lymphaticus," especially the enlargement of the thymus, while on the other hand they result in weakening or paralysis of the heart. He would, however, not commit himself to the statement that the thyroid was always the causative factor in status lymphaticus. On the contrary, many observations go to show that derangements in the function of other ductless glands may lead to the same result. As to the improvement observed after operations on the thymus, this could not invalidate his theory, as the operations might have acted beneficially in doing away with a greater or lesser part of the thymus tissue or in causing an altered blood circulation in the gland and thereby an alteration and improvement of its function. Dr. W. Wermstedt reported several cases of so-called thymus death and agreed to a certain extent with Professor Hammar's theory, as he thought that in many cases of sudden death the cause had not to be sought in an enlarged thymus but in certain radical alterations of metabolism.

#### AN ANTI-MALARIAL FISH.

Mr. C. Kenrick Gibbons has presented to the Zoological Gardens a large number of the small fresh-water fish from Barbadoes known as "Millions" (*Girardinus poccilloides*). These little fish, which have been placed in a tank in the tortoise house, are of special interest, because of their supposed action in preventing malaria. Malaria is very much less common in Barbadoes than in other West Indian islands, and it has been suggested that this freedom is due to the presence of enormous quantities of the "Millions" in the fresh-water pools. The little fish are very voracious, and destroy large numbers of the larvæ of mosquitoes that spread malaria. The males are about half an inch long, with brilliant iridescent colours and large black spots on the sides. The females are considerably larger and less highly coloured. It is understood that experiments are going to be made with the introduction of these fish into tropical countries where malaria is prevalent. Altogether, the mosquitoes of the future are going to have a very unhappy time.

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