

of Dublin, further described the affection; and in 1840 Basedow, of Germany, still further outlined its clinical features. From these it has taken two of its names. New and valuable ground was broken when, in 1892, Hofmeister found that the thyroid in young rabbits was accompanied by an arrest in growth and development, and that a condition of chronic cachexia resulted. This work was followed up by many, such as Eiselsberg, Lanz, Moussu and Falta.

As the outcome of clinical and experimental observations it has been fully established that two opposite conditions exist, namely, those of over activity and under activity of the gland. The state of over activity, or hyperthyroidism, is that of exophthalmic goitre; while the conditions of under activity, or hypothyroidism, give us such pictures as cretinism, myxœdema and postoperative cachexia strumipriva.

When the thyroid is removed from young mammals a cretinoid condition ensues, manifested by slow growth, small face, prominent abdomen, sexual infantilism and delayed ossification of the epiphyses. There is a marked tendency to atheroma of the aorta. Nitrogen excretion is greatly reduced, and the need for protein food is thus lessened. There is a marked tendency to obesity, owing to faulty fat metabolism; but the thyroidless animal can consume large quantities of carbohydrates without showing glycosuria. In such an animal the administration of adrenalin is much less likely to produce glycosuria. Respiration is faulty, the appetite is impaired, the body heat is lowered, the sympathetic nerves are less responsive, and there is a type of anæmia.

The well-defined cases of myxœdematous dwarfism and infantile cretinism, or the well-marked example of myxœdema in the adult are not likely to be overlooked. The slight forms of thyroid deficiency often go undetected. They may be mistaken for Bright's disease, as there is frequently albuminuria. They may be also confused with the ill health of syphilis and alcoholism. In the adult the morbid change is confined to infiltration. In proportion to the thyroid defect will be this infiltration. This does not tend to spontaneous cure. When such a condition exists in a woman who becomes pregnant decided abatement of the symptoms takes place, the reason for this being that pregnancy stimulates the thyroid to greater activity. This infiltration is found in the muscles, nerve substance, the glands, and the skin; and with the result that their functions are seriously lowered. There are muscular pains, the nerve tissue is poorly nourished, the skin is dry, the heart muscle is feeble, there is constipation with ptosis of the viscera, and the bladder becomes very sensitive and sheds large amounts of epithelium.

To these conditions of thyroid inadequacy, thyroid excess presents a complete contrast. In this state we have the heart hurry, sleepless-