

This condition has several times followed a too extensive removal of the thyroid in man, and may also occur in myxœdema. Another symptom present frequently in monkeys is narrowing of the palpebral fissure—so-called enophthalmos; we shall see that administration of thyroid extract may cause exophthalmos. True myxœdema is not often seen in the experimental animals. It has been induced in mild degree in monkeys by Horsley, Ednunds, and others, but not with any constancy, and in other animals it is not seen at all.

It is not usually possible to save the lives of dogs or monkeys, whose thyroids have been removed, by feeding on sheep's thyroid, although a good deal of relief may be obtained for the symptoms in this way. Grafting a piece of the gland under the skin is successful for a while, but eventually it is absorbed.

The effects of removal of, or insufficient secretion by, the thyroid gland in man are *myxœdema*, and occasionally *tetany*.

In 408 cases in Kocher's clinic at Berne complete extirpation of the thyroid was followed by myxœdema in 69 cases, and a similar operation in 78 cases in Billroth's clinic was followed by tetany in 13 cases, of which 6 proved fatal. Feeding with sheep's thyroid is wonderfully successful in myxœdema, but is not usually effectual in tetany.

Partial removals of the thyroid in dogs produce symptoms of correspondingly lessened severity. Halstead found that in one case one-eighteenth of the gland sufficed to ward off symptoms of athyroidism, but the amount which could safely be