

2. To treat the symptoms as they arise.

In the first class come operative measures on the thyroid gland, such as removal of part of the over-functionating organ. Less radical measures than operative ones have for long been in vogue, with the object of checking the over-activity of the gland, among which may be mentioned pressure over the organ and the application of cold, either in the form of ice or by means of Leiter's tubes. The employment of electricity, either as Galvanic or Faradic current, probably may be classed here.

There is no certain way of neutralizing the excessive thyroid secretion in the blood. Possibly the use of thymus gland extract might be mentioned as one, as this material has in many ways the opposite action to the thyroid secretion, but the results of its use have not been encouraging. The administration of thyroid gland was suggested some years ago by Professor Jones. Theoretically it seemed quite wrong to give more of what was already in excess in the blood—much like giving alcohol to cure drunkenness—and yet good results occasionally followed, although oftener the reverse. Later, Professor Jones found that what he had really been using was the thymus gland. It seems that the butchers had been asked to supply portions of the large gland in the neck of the calf, and, as under one year of age the thymus gland is as large as the thyroid, the mistake arose.

A treatment which has been tried in Germany, and occasionally elsewhere, is the administration of the blood, or blood serum, or even the milk of animals from which the thyroid gland has been removed some time before. The idea is that the use of the thyroid secretion in the blood of the normal individual is to neutralize certain toxins which have been produced elsewhere. In thyroidectomized animals these toxins have accumulated—being unneutralized—and, when the blood of such is administered to a person suffering from Graves' disease, the excess of toxins thus introduced neutralizes the superabundant thyroid secretion and thus relieves the thyroid poisoning. There seems to be a great margin for error here, and the results have not been encouraging, although, as usual, a certain number of cures are reported. G. R. Murray tried the treatment in two cases last year with negative results.

One theory of the nature of the disease (that of Gley) is that in it the parathyroid glands are not acting properly—not controlling the secretion of the thyroid—and that there-