

reliable index of thyroid activity. Alimentary hyperglycemia has been found to be present in practically all cases of thyrotoxicosis, but is seldom present at the end of the first hour in normal individuals. It occurs also in alcoholism, diabetes, malignancy and the chronic arthritides. While its presence in suspected thyrotoxicosis is only strongly corroborative, its absence is of the utmost value in ruling out the existence of this condition. [Author's abstract.]

Lisser, H. COÖPERATION BY INTERNIST AND SURGEON IN THE TREATMENT OF GRAVES'S DISEASE. [Endocrinology, Vol. III, No. 1.]

1. *Treatment by Operation.*—At the outset it must be frankly admitted that the most rapid, permanent and spectacular results, are achieved by surgery. There can be no question of such a contention. No medical maneuvers, however skillfully executed, can quite approach the prompt decisiveness of surgery. Consequently and naturally, some surgeons insist that operation should be the only method employed. They would not concede a place for medical procedures. No issue can be taken with this viewpoint, if the surgery of Graves's disease were a comparatively harmless procedure attended by a very small, negligible mortality. But it would probably be conservative to estimate the average mortality of the great majority of surgeons as at least 10 per cent. and it is probably much higher. If surgery were our only resort, and no other measures available, we would necessarily have to be content. But certain other procedures are available and not unworthy of consideration.

2. *Medical Measures including Roentgen Radiation.* (a) *Prolonged Rest.*—Physical exertion, mental strain and emotional excitement are all injurious to the hyper thyroid patient; obviously, then, the removal or reduction of these factors by "rest cure" constitutes a form of therapy of considerable value. It helps to slow metabolism, reduces diarrhea, diminishes sweating, soothes the nervous emotional excitability, quiets the thyroid heart and adds body weight. A real rest cure, skillfully managed—even without medication or X-rays—is often all that a mild case requires for restoration to normal health, and moderately severe cases undergo astonishing improvement oftentimes.

(b) *The Ice Bag.*—Cold applied to the vascular goiter in the form of a collar ice bag encircling the neck, and an ice bag over the heart is a simple measure not to be overlooked. Though it is difficult to estimate just how much good it accomplishes, it would seem to be beneficial and is frequently greatly appreciated by the patient.

(c) *Diet.*—A high caloric diet—2500 to 3500 calories—helps to restore weight and strength, and is an important adjunct to any form of treatment, even if it be preparatory to operation.

(d) *Medicine.*—By far the most important and effective, is the Forchheimer combination of quinine hydrobromate 0.30 (gr. v) and

ergotin 0.065 (gr. 1), given in gelatin coated pills, 2 to 4 times daily. Many who have given this preparation a fair trial, are decidedly impressed by the patient's improvement both subjectively and objectively. A fair degree of benefit can usually be anticipated from the exhibition of this medicine, but cure can rarely be attained by its use alone.

(c) *X-ray Application to the Thyroid and Thymus.*—This form of therapy is a notable contribution. In a fair number of cases it can accomplish cure, and in the majority of instances, perhaps, it produces surprising improvement. Occasionally no benefit results. If administered in proper dosage and at proper intervals by a roentgenologist experienced in its application, it will usually prove itself worthy of trial. I have seen diarrhea cease, the pulse drop from 120 to 80, and a gain of 20 pounds result from 3 to 5 roentgen treatments. Under such conditions there can surely be no indication for surgery.

Summary of Medical Treatment.—In a general way then, it would seem reasonable to conclude that the medical measures described above—sometimes one or the other alone, more often a combination of all of them—will cure Graves's disease not infrequently; and the majority of cases will show an appreciable improvement. It follows at once, and this is important that some cases of Graves's disease do not require surgery. Surely, then, in communities where the expert thyroid surgeon is not available, medical treatment deserves and demands a careful and serious trial.

3. *Treatment by Internist and Surgeon.*—The best results for the individual patient will be attained most often by early consultation between the internist and surgeon. Just when medical measures should cease and surgery begin is sometimes difficult to determine. This constitutes a borderland zone, where there exists legitimate room for difference of opinion. Perhaps the wisest decision at such a time would be as follows: if an experienced, reasonably safe thyroid surgeon is at hand, let him operate; if he is not available, postpone surgery a little longer; 10–20 per cent. mortality is not to be trifled with, while less dangerous means may still be good.

Conclusions.—1. The treatment of exophthalmic goiter by the experienced thyroid surgeon leads most frequently to rapid and permanent cure.

2. The average non-expert surgery of Graves's disease is, however, accompanied by a heavy mortality.

3. Rest cure, certain medicines, and X-rays, skillfully administered, will cure some cases and improve the majority, without the help of surgery.

4. The best results are obtained by early consultation in each case between internist and surgeon, and by cordial coöperation throughout the course of treatment, whether that be purely medical, purely surgical, or combined.

5. Surgeons should not rush their patients to operation. Internists should not try medical measures too long. [Author's abstract.]

Phillips, Norman R. GOITER AND THE PSYCHOSES. [Journ. of Mental Science, Oct., 1919.]

Systematic examination of the thyroid demonstrates the fact that enlargement of the gland is of fairly frequent occurrence in the insane, especially in female cases. It is not surprising that more attention has been drawn to this circumstance in areas where goiter is endemic. This is due partly to the more marked enlargement of the gland and the resulting disfigurement in this variety. Thus it has been observed that the goitrous, including congenital cases, are eight times more susceptible to insanity than the non-goitrous in one such district.

There is trustworthy evidence showing that where an enlargement of the thyroid exists the amount of secretion is altered, producing signs of hypo- or hyper-thyroidism, or the two conditions alternating in the same subject—thyroid instability. Any marked excess or diminution of thyroid secretion produces disorganization of the delicate hormonal balance of the body and results in auto-intoxication, the effects of which would be at once felt by the nervous system.

The author examined two hundred insane patients at St. Andrew's Hospital, Northampton, and out of this number twenty-four were found to have enlargement of the thyroid gland: of these twenty-four cases of goiter no less than seventeen were suffering from manic-depressive insanity, four were cases of dementia præcox, and three of paranoia.

Most of the twenty-four cases under observation showed signs of hyper-thyroidism. It is noteworthy, however, that the dementia præcox cases all showed signs of more or less marked hypo-thyroidism. Phillips draws attention to the fact that certain observers in endemic districts found that the majority of their goitrous patients belonged to the dementia præcox and congenital idiocy groups, the number of cases of manic-depressive insanity being comparatively small. In the opinion of the author this disparity can be accounted for by the fact that sporadic goiter is more often accompanied by hyper-thyroidism, and that this latter condition plays an important rôle in the production of manic-depressive insanity. On the contrary, there is reason to believe that endemic goiter is associated, as a rule, with hypo-thyroidism, which condition appears to favor the onset of congenital idiocy and dementia præcox. A study of the cases examined emphasises the great importance of heredity as an etiological factor in thyroid abnormalities. Another important predisposing cause is the presence of an emotional or neurotic temperament.

The exciting causes are divided into physical and mental:

1. Physical: under this heading are grouped the various toxemias which are known to weaken the secretory value of the thyroid gland