SURGERY

WAR, RAILWAY, INDUSTRIAL, GYNECOLOGICAL, OBSTETRICAL AND UROLOGICAL.

CLINICAL DATA ON GOITER*

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Thyroid disease is undoubtedly less prevalent in the South than in many other parts of the United States.

Our own statistics indicate a smaller incidence (6.25 %) among males than is usually cited in literature. The Negro is undoubtedly affected less frequently than the Caucasian. Comparatively infrequent instances of a significant family tendency have been noted among our patients. The sister is affected more frequently than the mother. No two members of the same immediate family have been seen with the exophthalmic type, nor have we been able to elicit any significant information about a particular water supply as being the source of goiter. Charting our patients for the State of Georgia with the idea of discovering some such influence has been entirely negative. Efforts to connect pelvic and thyroid disease show no significant sequence of one upon the other.

As our experience has enlarged we have acquired greater confidence in accepting operative risk in the exophthalmic group, though a word of caution should be uttered against operating upon all these patients. We have found in this group 4.5 % who were, in our judgment, too ill for any kind of operative treatment to be undertaken with safety. This had always apparently been a consequence of waiting too long. An additional 22.5 % seemed unsafe risks for radical operation and so ligation of the superior poles or injection of boiling water, or both, was practiced. Approximately 50 % of the patients thus treated in a preliminary way were brought later to safe thyroidectomy. Of the remaining 50 %, about half have not been operated upon because of bad

hearts and about half have been so improved that they declined further interference.

Fig. 1—Right lobe of the gland, including the adenoma, is delivered. Care must be taken to thoroughly free the outer surface of all muscular fibers.

It has seemed to us that ligation of both upper poles under local anesthesia constitutes a material aid in case of those patients who are too unwell for radical operation. Marked improvement has occurred in most of our patients so treated. Our experience coincides with that of others that the reaction following even single ligation is sometimes profound.

In the average small diffuse thyroid we have come to believe that we can do the double resection almost as quickly as a double ligation—and with almost as little tax to the patient, so that the size of the goiter, irrespective of the symptoms, has come to play a part in determining our

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course. We have come to believe that given preliminary rest in bed until we are sure the patient is getting better instead of worse, and given a small thyroid (so that the resection need not be tedious or bloody) most patients who will stand ligation will stand thyroidectomy expeditiously done.

We have seen no ill effects from the injection of boiling water; yet we can not bring ourselves to inject a small thyroid without considerable trepidation. We have more often utilized the procedure as an aid to ligation than otherwise. We not infrequently inject the lobe through the incision at the time of ligation. The work can be done then with a degree of precision, and we do not hesitate to insert as much as 15 or 20 cc. at a time in a good sized lobe. If it is improbable that subsequent thyroidectomy will be safe, we follow with several injections made through the skin at intervals of one or two weeks. We are convinced that boiling water at least adds to the efficacy of pole ligation. Indeed, we are not prepared to dispute with those who claim that

equal good can be accomplished with the boiling water without ligation. Our experience with using the water alone is limited. Occasionally when resection of both lobes has been desirable but has seemed unsafe, we have used repeated injections in the lobe which remains, and have been generally pleased with the results.

Nurses and assistants should be cautioned to say nothing in the presence of the patient about "boiling water." We tell our patients we expect to inject "a fluid." To tell a well person that he is to have boiling water injected into his body naturally suggests torture; to one of these highly-nervous, weak individuals it would be almost beyond endurance.

When there are multiple large adenomata one has to be careful to leave at least a reasonable amount of thyroid tissue, because sometimes the encroachment of these large growths has practically destroyed the intrinsic thyroid tissue.

Fig. 2—The adenoma itself may be delivered through an incision in the stretched-out tissue of the lobe.

Fig. 3—Mattress sutures may be utilized to control bleeding in the bed and to obliterate cavity.

As to diffuse enlargements of the thyroid, whether toxic or not, we have from the beginning of our experience rather uniformly followed bilateral resection; and

we have not hesitated to remove a maximum amount of gland tissue on both sides. We have yet to recognize a case of post-operative myxedema as a result of this practice.

Injury to the recurrent laryngeal nerve, if it occur, is apt to result from manipulations at the lower pole. To avoid this we are careful to place our forceps somewhat forward on the gland before the resection is begun. The placing of other forceps laterally on the lobe is also done with the utmost caution. We have had no instance of permanent aphonia, but have had three patients who whispered for periods varying from three to six weeks following operation.

The single adenoma presents perhaps the easiest of all thyroid operations. It should, however, always be remembered that other small adenomas are apt to be in the gland in addition to the single one apparent before the gland has been uncovered; so that it is usually well to palpate the whole gland before closing the wound.

In removing a single adenoma one may ligate the superior pole on the affected side and remove more or less of the thyroid tissue with the tumor; or, being certain that he is dealing with an adenoma, he may incise the thinned-out thyroid tissue over the growth and deliver the tumor through the incision. As a matter of clinical experience the thyroid tissue overlying the adenoma is usually thicker above and thinner below, so that toward the lower pole there is frequently nothing more than the thyroid capsule to be incised. Of course, when such a growth has been delivered from its bed, considerable bleeding is frequently excited. Hemorrhage, however, can be controlled without difficulty. It can be checked temporarily by the hand from behind. Mattress sutures may be utilized to obliterate to cavity, and at the same time to control bleeding.

Attention is called to the fact that nearly always there is an avascular space between the thyroid cartilage and the upper pole. If the point of dissecting scissors be insinuated into this space, a ligature may be carried easily around the incoming vessels at this point. In this manner a considerable part of the hem-

orrhage accompanying enucleation may be avoided. Of course, the incoming branches of the inferior thyroid may also be clamped or tied in advance of the enucleation; but we do not do this as a routine procedure because of occasional danger to the recurrent laryngeal.

DISCUSSION

Dr. C. N. Cowden, Nashville, Tenn.—I do not know anything in which we have advanced further in the last eight to ten years than in the treatment of goiter. Conditions are today much better than they have been on account of the fact that we are getting the best of the cases for operative procedure. The Doctor has said that there is no class of cases in which we get more favorable results than in this. That is true; we are getting much better results now, but we are not operating upon the extremely toxic cases that we did one or two years ago. It just takes one or two of those cases to take every bit of the enthusiasm out of a man; and he will select the next cases with a great deal of care. If we will wait on these cases until organic lesions take place, and it has gone beyond the functional stage, I do not know of any stage where they should be accepted. Where the functional experience has gone beyond the organic, I do not know of any class of cases where we get such poor results.

To do much operating in this region it does not matter whether you even injure or cut the laryngeal nerve, you are going to have an exudation in the vicinity of that nerve, and are going to get some disturbance of its function. I am always interested in hearing my patient speak after the operation. That is a very sweet sound to me. I operate upon every case with that one thing in view.

I have never had any trouble from the few cases that I have done from the removal of too much gland. The tendency in our early operations was that we were afraid that we would remove too much of the gland; that we would not get enough functioning of the gland left behind to protect our patients. Now we know that it takes a very small amount, and the operations that we are doing now are not attended with the recurrences we had a few years ago. I do not think that I am having recurrences at all now, but in the earlier cases I had to go back and resect again, to my chagrin. I think if we will confine ourselves to that simple classification set forth by the essayist, it will keep us out of a great deal of trouble.

In regard to the operation done for preparing patients: I have never received any benefits so satisfactory as the Porter methods of injection. It is painless. You can do it upon a patient in an extreme condition. It is not attended with nearly so much of the fright and shock that you get with the ligation method, and in my hands it has been equally as efficient in controlling the patient and giving him relief from the extreme symptoms from which he is suffering

until you can pull him up, and, in that way, prepare him for the radical operation. I have had to reinject for two or three times at intervals. I have one patient now that has a condition of the kidneys which precludes any operative measures at all, but I have kept her comfortable for three years with these injections. We keep her comparatively comfortable, whereas, if we attempted the radical operation, we would lose our patient.

Dr. Rachelle Yarros, Chicago, Ill.—I am exceedingly sorry that Dr. Barker is not here this morning, because we have all been looking forward to his contributions to the relation of internal secretions to pelvic development.

I want to bring out a few observations in three hundred and fifty girls who worked in the same industrial establishment, largely coming from Poland. It has been exceedingly interesting to me to try to connect something in our life here in America that produces this change, and it seems to me that the explanation will only come as we watch, most of us, as the Doctor who has read the paper, and try to bring out just what it is that produces so many goiters in young women.

I have been in charge of an institution for eighteen years, and in the early days I noticed a good many goiters in Chicago, and we did notice a good many more in Chicago than in other localities. Those girls will come to work and are apparently all right, but in three or four years you can notice it. Now, at what particular time do they notice it? And, I asked, "At what particular period in the month do you notice this?" A good many said they noticed the neck decidedly enlarged when they were going to menstruate. We know that there is some relationship between the ovaries and the thyroid. All the internal secretions seem to be working together. As time has gone on I have seen more and more working girls and foreign girls in those and other establishments, where apparently the neck is growing. My observations have been particularly in Chicago. The factory life is very different from rural life, and it seems to me the nervous element might be a decided factor. There is a tremendous relationship between the goiter and pregnancy. A woman has a small goiter, and when she becomes pregnant the goiter enlarges and gives her considerable trouble. Pregnancy over, things come back to their normal condition.

It is a very interesting study and more people ought to be watching these things. In a great many cases I have seen in my experience patients have gone on with simple goiters, apparently having no symptoms, and then, after those goiters have been there for several years, the patients have begun to complain of actual symptoms of hyperthyroidism.

Dr. Jones (closing).—The Doctor brings out a point which presses sorely for solution: what is the fate of the goiter which appears at puberty—appears, and seems to disappear. Our own personal experience is that that girl is much more apt to have trouble on account of it later in life than a girl who has never had thyroid enlarge-

ment. But, at the present time, we do not advise these girls at puberty to submit to operation.

In regard to these women in group one,—the exophthalmic type—50 % appear before the age of twenty-five, an additional 20 % appear before 18; and an additional 7 % thought that the goiter appeared and disappeared, to reappear at ages varying from 26 to 49.

We have always proceeded on the assumption that surgeons are a little too cautious in removing thyroid tissue, and so if circumstances allowed it, we have not hesitated in toxic goiter to remove as much as we dare on both sides. We have not noticed any patient's having lost too much tissue by operation.

With the injection of hot water we have had no extended experience; and we are not prepared to dispute the statement that it is quite as efficacious as ligation. Nevertheless we have had most satisfactory results from simple ligation of the superior poles. We saw a few days ago a woman whose superior poles were ligated eight weeks previously, and she had gained twenty-three pounds since the operation.

UNIQUE CASE OF PROSTATIC ABSCESS

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The patient is a man 72 years of age with the following history:

About ten years previously he began to have frequent micturition, rising two or three times at night. In other respects he was very healthy. Three years later he sustained a fall upon the buttocks. Retention developed, and for the entire seven years prior to consulting the writer, catheterism had been necessary, normal evacuation of the bladder being at no time possible. Three weeks before the author first saw the case, severe vesical tenesmus with difficulty in passing the catheter developed. Catheterism failed to relieve him. Associated with the vesical tenesmus were frequent passages of the bowels, the rectum becoming so irritated that evacuations occurred every few minutes. Double epididymitis had developed two weeks previously, with marked swelling from acute hydrocele on both sides. There were frequently recurring chills with temperature ranging from 100 to 101°.

Rectal examination revealed what apparently was an enormously enlarged prostate extending high up in the median line. The peculiar conformation of the tumor corresponded to certain rare cases of enlargement due to adenoma projecting upward into the bladder. There was no fluctuation and while pus was suspected, the writer believed that small foci, if any, were