

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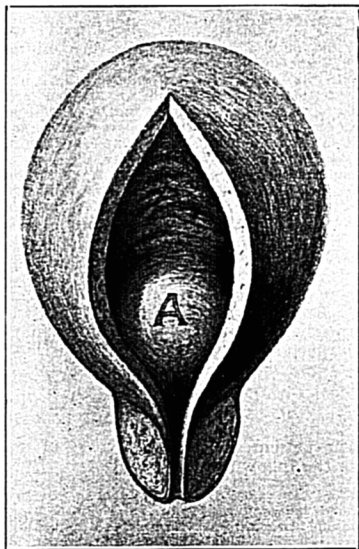
The patient is a man 72 years of age with the following history:

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

present. The temperature and chills could be logically explained by catheter trauma and infection—instrumentation being both difficult and painful and attended by slight bleeding—conjoined with the double epididymitis. Cystoscopy was not performed, for obvious reasons.

The patient was taken to the hospital and suprapubic section performed with the intention of doing a prostatectomy later. The condition found is shown by the drawing herewith reproduced.



There was no enlargement of the lateral lobes of the prostate. Extending upward from the prostatico-vesical orifice was a large, smooth, semi-elastic tumor extending upward beneath the floor of the bladder for a distance of approximately 7 cm. This tumor was about 5 cm. in width and 4 cm. in thickness. The bladder floor was distinctly pouched above the superior border of the tumor. There were several ounces of residuum containing considerable pus. The tumor presented no fluctuating points and was still regarded as adenomatous.

One week later the patient was anesthetized for a prostatectomy. The swelling of the scrotum and its contents was so great at this time that pus was suspected. Incision revealed a large quantity on each side. The tunicae vaginales were drained and packed with gauze. On opening the bladder we were astonished to find a practically normal vesical neck and no tumor whatever. Pus was issuing freely from an open-

ing; in the bladder mucosa corresponding to the upper border of the tumor found one week previously.

The author regards this case as one of abscess beginning in or about the base of the prostate, possibly in or beneath the prostatic urethra, and burrowing upward in the bladder wall. Obviously, the mechanical results corresponded to those which would have been produced by a solid prostatic tumor growing from the base of the organ and extending in the same direction as did the abscess. The patient was so severely septic that he had a very hard pull of it. He finally recovered, however, and at the present writing is in excellent condition and has partially regained his capacity for evacuating the bladder; which suggests that the primary obstructive condition at the vesical neck has improved by reason of destruction of adventitious tissue by the abscess.
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THE TREATMENT OF ACUTE DIFFUSE PERITONITIS*

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The treatment of acute peritonitis has been a steady, gradual progression marked by the recognition of the action of physical laws, chemical pathology, and physiological phenomena (both pathological and normal), by first one observer and then another, until there has been evolved a plan of treatment which gives a steadily increasing percentage of recoveries.

Any line of treatment, to be successful, must be based upon a full recognition of the action which each of these factors exerts upon the inflammatory process. Inalienably associated with this development have been the names of two of America's most brilliant and resourceful surgeons, Murphy and Fowler.

Acute peritonitis in practically all cases is a sequel to some other pathological condition, such as rupture of the appendix, gall-bladder, Fallopian tube, perforation of a gastric or duodenal ulcer, perfora-

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tion of a typhoid ulcer, stab- or gun-shot wounds of the abdomen, and as a post-operative sequel. That it is a secondary process has quite a little to do with the prognosis, a fact which will be reverted to later.

Of the physical laws underlying the rational treatment of peritonitis, that of gravity or position, capillary action, and the fact that intra-abdominal pressure tends to cause all fluids contained in the abdomen to flow toward the point of least resistance are the most important, closely linked with these and one the importance of which Fowler was the first to take full recognition was the course of the normal physiological flow of intraperitoneal fluids and the areas from which absorption was greatest.

This, combined with the four factors first mentioned,—gravity, position, capillary action, and intra-abdominal pressure,—formed the basis of a method of treatment to which, when Murphy's eliminative method of continuous proctoclysis was added, gave us the lowest death rate from this formidable malady in the history of medicine and completed another page of epoch-marking surgical progress.

The outcome of a case of diffuse peritonitis is dependent upon the length of time that the primary disease has existed, the type of infection present, the age and vital resistance of the patient, the length of time that the peritonitis itself has existed, and the character of treatment to which the patient has been subjected.

Referring to the effect which length of time that the primary disease has existed has upon the course of the peritonitis, it is a well-demonstrated clinical fact that cases secondary to diseased processes such as cholecystitis, salpingitis, and appendicitis have a much lower mortality rate than those resultant from acute intra-abdominal lesions, such as stab- and gun-shot wounds. This condition is, I believe, due to a partial immunization which has taken place in the first instance and not in the latter. The type of infection, whether colon bacillus, Neisserian, pneumococcus, or streptococcus, plays a most important part in the ultimate outcome.

The grade of toxemia present, while dependent upon the type of infection, varies directly with the length of time

that the process has existed. This toxemia has been demonstrated as being due to a proteose ferment, while others have claimed that it was an acidosis, and advise modifying the treatment accordingly. After a peritonitis has existed for a few hours there are added all of the symptoms incident to a complete stasis of the intestinal tract with its associated fermentative changes of the bowel contents, thereby contributing its quota of poison to the toxemia present.

That this stasis is an effort upon the part of Nature to limit the inflammatory process, is unfortunately too often lost sight of in the early treatment of peritonitis. It would have been much better for the patient had no treatment been instituted than that he be given the calomel, salts, oil, or as has sometimes been the case, all of them in sequence. I would not refer to this phase of the patent mismanagement of peritonitis were it not that it is a very general practice with many practitioners to prestage the treatment of most intra-abdominal lesions with an initial purgative, and it can not be too forcibly impressed upon one the pernicious and often fatal effects that can be attributed to this practice.

Our course, based upon the foregoing underlying principles, the proper procedure is to open the abdomen under general anesthesia, remove or repair the primary lesion, introduce split rubber drainage tubes with gauze wicks into Morrison's pouch, the pelvis, and wherever else indicated and complete the work as expeditiously as possible. From now on the main indications are to maintain free drainage, promote elimination, sustain the strength of the patient, and guard against complications.

The patient, upon being placed in bed, is put in the sitting posture and 500 c. c. of normal salt solution administered subcutaneously. This is repeated every four to six hours. Plain warm water is also started at once by Murphy's method of proctoclysis. We do not feel that for the first twenty-four to forty-eight hours absolute dependence can be placed upon absorption from the rectum and colon. In fact, it has been our observation that where there is a profound toxemia the processes of absorption from the intestinal tract