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Report of Two Successful Cases of Prostatectomy.

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TWO SUCCESSFUL CASES OF PROSTATECTOMY.*

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The first case I have to report is that of a man, sixty-seven years of age, who was twice a patient during my service at the J. Hood Wright Memorial Hospital.

He was first admitted in November, 1895, with an attack of acute retention of urine, which his physician had been unable to relieve by the use of the catheter and for which suprapubic aspiration of the bladder was resorted to.

His previous history was indefinite, but indicated that he had been suffering for some time with difficulty in emptying his bladder. He was in possession of a dirty catheter which, he said, he had been in the habit of using occasionally for several months. At this time he had a very acute cystitis, and the prostate could be felt as a very large tumor projecting backward toward the rectum. His urine was very foul, and the calls to urinate were very frequent. The amount of residual urine varied from four to six ounces or more. He was treated by rest in bed and daily irrigations of the bladder with various solutions. Under this treatment he improved considerably, his residual urine diminished in amount,

* Read before the Society of Alumni of Bellevue Hospital, November 4, 1896.

and he was quite comfortable. The size of the prostate, as evidenced by rectal touch, seemed somewhat decreased, and at the end of about a month, when he was discharged to become an out patient, he could pass his urine himself without much difficulty. He was instructed how to keep his catheter clean and how to use it. At this time he was anxious to have some operation performed for his permanent relief, but his apparently feeble condition and the fact that he had improved so much under palliative measures led us to decide against it at that time.

On January 22, 1896, he was readmitted to the hospital, suffering with another severe attack of cystitis. He had failed to report as advised, and had neglected the instructions as to the necessity of cleanliness in the use of the catheter, his nature and environment being such that cleanliness seemed an impossible attainment.

Examination at this time revealed a very much enlarged prostate. A catheter was made to enter the bladder with considerable difficulty, and about four ounces of very turbid ammoniacal urine were withdrawn. His temperature was normal. The urine was 1.019 specific gravity; alkaline; full of pus and albumin. The old man was suffering intensely with vesical pain and frequent and difficult urination. He was much worn from loss of sleep, and appeared quite feeble. He was put to bed, and his urine drawn and bladder irrigated twice a day with a solution of permanganate of potassium, 1 to 2,000.

Under this treatment he obtained some relief, but on February 10th suffered from an attack of retention. The catheter withdrew fifteen ounces. From this time until the end of the month, when the operation was done, he continued to have pain and did not stand catheterism so well. As it did not seem possible for a patient to maintain catheter life safely under the conditions in which he was obliged to live, a suprapubic cystotomy was determined upon, with a view to maintaining permanent drainage in case it should not be found feasible to remove the prostate.

On February 29, 1896, a little over a month from the date of his admission, ether was administered and a suprapubic cystotomy done in the usual manner. After opening the bladder the large prostatic tumor could be felt by the finger. The enlargement of the lateral lobes seemed most marked, and the contact of their opposing sides with the prostate congested would seem to explain, in this case, the mechanism of his frequent attacks of retention. The middle lobe also projected somewhat, but did not constitute a distinct bar to the urethral outlet.

The pelvis of this patient was very deep, and considerable difficulty was experienced in enucleating the gland. An assistant aided me very much, however, by pushing up the prostate through the anterior wall of the rectum with his finger. The mucous membrane was spared as much as possible, and an attempt was made at a clean enucleation. This, however, was impossible, and the large succulent growth was removed piecemeal by the fingers and scissors. The specimen shows, I think, those portions of the median and lateral lobes which projected into the bladder and encroached upon the urethral outlet, and, though it is shrunken somewhat in the alcohol, represents a prostate of large size.

There was considerable oozing of blood during the enucleation, and the operation was prolonged and difficult. At its close the cavity of the bladder was packed with gauze, and drainage established by means of a large catheter through the suprapubic wound. Shock considerable; good recovery from ether. There was some hæmorrhage during the night which yielded readily to irrigation of the bladder with hot saline solution. The patient went along very comfortably for about ten days, the temperature never rising above 100° F. On the 11th of March, following an attempt to remove the suprapubic drainage-tube, the temperature went to 103.8° F., and the patient had considerable pain. The tube was reintroduced and left for a few days more, the wound in the meantime granulating nicely, and temperature falling nearly to normal. By the end of March

the patient was able to pass a small amount of urine voluntarily and the wound had nearly closed. After this time, when he began to sit up, the leakage became less, and he was able to pass more urine through the natural channel. On April 2d it was found that the catheter passed eight inches before entering the bladder, whereas just before the operation the urethral distance measured ten inches before the urine flowed. A rectal examination showed but very slight enlargement at the situation of the prostate.

On the 6th of April he could retain his urine for several hours and pass voluntarily seven ounces. No urine comes through the fistula, though there is slight leakage when the bladder is distended during irrigation. The patient has slight dribbling away of urine from the urethra when standing.

May 2d.—The wound is closed.

11th.—The patient is discharged.

As a result of this rather severe procedure in an old man a very good functional result was obtained. The patient was seen about two months ago. He has discarded the catheter, is able to pass his urine voluntarily, and says he feels very well. I am unable to state exactly whether he still has residual urine or how long the intervals are between the acts of urination. His condition when he left the hospital was certainly good, and has evidently much improved since that time. I shall endeavor at some later time to make more accurate observations upon the final result of the operation.

The second case which I have to present is one of perineal prostatectomy in a man sixty-six years of age.

This patient was admitted to Bellevue Hospital on August 24, 1896, and the following brief history was obtained: Since the age of twenty he has had several attacks of gonorrhœa. Ten years ago he began to have serious difficulty in urination, which culminated in an

attack of retention which was relieved by aspiration of the bladder above the pubes. He remained in the hospital for a time and an external urethrotomy was performed for the relief of his strictures. As a result of this operation his condition was much improved, but in a few months his trouble in urination began to return.

He says he has used the catheter occasionally ever since this time, and for the three weeks preceding the date of his admission to Bellevue he had used it constantly. He had suffered from frequent and painful urination for a long time, but for the previous three weeks the irritability of the bladder had become so intense and the spasm so painful that he had been obliged to pass water every few minutes, and had frequent attacks of retention, for which he resorted to the catheter.

On admission he presented symptoms of a very acute cystitis and his sufferings were intense. A catheter withdrew six ounces of urine, which was alkaline, of low specific gravity (1.010), and full of pus and mucus.

The patient could obtain no rest by night or day on account of the extremely painful tenesmus of the bladder. This clearly was not a case for rest in bed, with catheterization and irrigation. It was a case which seemed to call for immediate and free drainage of the bladder.

On August 25th ether was administered and a median perineal cystotomy performed in the usual manner. Previous to the operation the capacity of the bladder had been proved so small that the perineal route had been chosen as the simpler method of entering the small contracted viscus.

On examination of the bladder through the perineal wound by the finger, the lateral and median lobes of the prostate could be felt very much enlarged. The encroachment on the calibre of the urethral outlet of the bladder, in this, as in the other case, seemed to be due to the apposition of the greatly enlarged lateral lobes of the prostate. Tearing through the mucous membrane over these enlarged prostatic masses with the finger nail, I succeeded in enucleating with some difficulty nearly

the entire prostate. I regret that the specimen has been lost. The prostate, in this case as in the other, seemed rather soft and succulent. The middle portion was the most difficult to remove, being almost beyond the reach of my finger.

At the completion of the operation the bladder was drained by a large catheter through the perineal wound and siphonage arranged for after the patient was put to bed. The hæmorrhage was moderate, the shock comparatively slight, and the patient rallied well from the ether.

His bladder was irrigated twice daily with a weak solution of permanganate of potassium.

On September 3d, the tenth day after the operation, he was sitting up. His symptoms were at once relieved by the operation and his convalescence was uninterrupted. He was discharged September 22d, a little less than a month from the date of his admission. At this time the perineal wound had healed save for a small granulating surface. There was no fistula. The patient could pass his urine himself without pain. His cystitis had improved so much that urinary examination, September 12th, showed no albumin, and it was much clearer, although still alkaline.* I have not seen the patient since his discharge from the hospital, but consider the result, as regards function of his bladder and improvement of his cystitis, as very good.

In comparing and contrasting these two cases of prostatectomy we are struck with certain points of similarity as regards the probable mechanism of urinary obstruction in both patients.

In both we notice, as a result of the establishment of free bladder drainage, an almost immediate recession and disappearance of distressing pain and tenesmus.

I was struck with the comparative ease and readi-

* The patient reported at the hospital three months after the operation, and said he could pass urine as well as when he was a boy.

ness with which the prostate could be removed by the perineal method in this case, a method which is now generally abandoned on account of the difficulty in many cases of reaching and dealing with the enlarged gland. The method proposed by Alexander, of a combined suprapubic and perineal prostatectomy, would seem in many cases to be a most practical operation, combining, as it does, many of the advantages of both methods.

In the first case the suprapubic drainage was, as it often is, most uncomfortable for the patient. The dressings were constantly wet for the first few days and needed repeated changes, as did the bed linen and clothes of the patient. This seems unavoidable in the many cases where, for various reasons, the bladder opening can not be closed tightly about the tube and where it is essential to maintain bladder drainage for some time. The discomforts to the patients of this method of drainage, as compared with those in case of the perineal method, seem incomparably greater. I do not wish to be understood, however, as drawing definite conclusions from these two cases. My object in presenting for your consideration these cases of prostatectomy is not to put forward any new principle in the treatment of prostatic obstruction, but rather to call to your minds the underlying principle of success in these operations of prostatectomy—viz., the complete removal of the obstruction to urination and the establishment of free bladder drainage.

Remembering that the operation is designed to prolong life in a class of sufferers who are frequently enfeebled by age and in whom the bladder trouble is often complicated by lesions of other viscera, especially the kidneys, we should not be surprised if the mortality

seems disproportionately large. The unfavorable condition of many patients who are the subjects of this operation is one which the surgeon must accept beforehand as a factor in increasing the death-rate. This fact is strikingly illustrated when we recall the fact that the operation of castration, which under ordinary circumstances has no mortality, shows in these cases of old prostatic disease a mortality nearly if not quite as large as the much more serious operation of prostatectomy.

According to the recent statistics of Cabot,* out of two hundred and three cases of castration for enlarged prostate there were thirty-nine deaths, a mortality of 19.4 per cent. The same author collected reports of twenty-two cases of ligature and division of the vas deferens, with seven deaths. He attributes the high death-rate in these so-called minor procedures to the fact that in castration for enlarged prostate the diminution of the size of the organ is often so slow as to be of little immediate use in stopping the back pressure on the kidneys, which is especially harmful at a time when the operation has laid a fresh stress of work upon them. The mortality rate in cases of suprapubic prostatectomy was, in the earlier series of cases, estimated as high as twenty-five per cent. Later tables show that with increased familiarity in the technics it is safe to place it at a considerably lower figure. Cabot thinks it safe to place it below twenty per cent., and considers it fair to assume that with added experience in the operation the death-rate will be greatly reduced.

With a mortality no greater or slightly less than that of castration for prostatic hypertrophy, with the further advantage of allowing thorough exploration of the

* A. T. Cabot, *Annals of Surgery*, September, 1896.

bladder for other possible conditions, and with the possibility of complete removal of the obstruction and thorough drainage of the bladder, the operation certainly should be ranked as a thoroughly justifiable and satisfactory method of procedure in properly selected cases.

In cases of prostatic obstruction, complicated by an intense cystitis, some method of treatment which includes free bladder drainage as well as the removal of the enlarged gland would seem to be imperative.

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