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Some Indications for External
Urethrotomy.

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SOME INDICATIONS FOR EXTERNAL URETHROTOMY.¹

BY JOHN C. MUNRO, M.D.

THE following four cases of external perineal urethrotomy are ordinary routine cases coming under my care at the Carney Hospital, taken without selection; nevertheless, they seem to point some lessons that it may not be amiss to emphasize, and with that in view they will be used simply as texts.

In reviewing the literature of this operation one is impressed by the growing tendency to enter the bladder over the pubes. That is as it should be, provided the perineal route is not neglected. Although Harrison has placed perineal operations on a definite, rational basis — a basis established less than ten years, in fact — there is still a tendency to disregard or to fail to appreciate the simpler surgical indications in cases requiring interference.

My first case might be prefaced by this quotation from Watson: "Once a deep stricture is beyond control of dilatation it seems to me best treated by external urethrotomy, — not reserved until retention or extravasation are actual, present dangers, but while the urethra is still permeable to a guide."

The patient, a sailor, thirty-nine years old, with a gonorrhœal history, had been dilated three times (at least two of these being by rapid divulsion), and each time contraction rapidly followed. At entrance he had the swollen, indurated perineum of extravasation, with difficult, painful micturition, high fever and the general appearance of a very sick man. As he refused any

¹ Read before the Boston Society for Medical Improvement, December 12, 1892.

urethral treatment, I contented myself with thoroughly opening and curetting the perineum and scrotum ; and in a short time he was discharged with the wounds healed. He returned soon after for further treatment, when examination showed anterior strictures of 22 and 16 F. calibre and a filiform stricture at four and one-quarter inches. Under ether the posterior bulbous urethra was opened on a whalebone guide. From this point the dissection was carried backward for an inch without a guide through a mass of cicatricial tissue until the bladder was opened. The anterior strictures were cut internally to 30 F., and the bladder drained through the perineum. Convalescence was uneventful ; and two months later the urethra took a 30 sound without trouble.

In this case, when it was found that recontraction rapidly followed dilatation, it was worse than useless to employ rapid divulsion, because ragged tears of unknown depth and direction must of necessity have been made into the peri-urethral tissues ; and occurring in the sagging part of the urethra, everything septic within reach would certainly drain into the lacerations. The healing process would become one of inflammation and disease. When extravasation had taken place, external, thorough division of the whole of the deep constriction was the only thing to do. In this way a physiological rest would be assured "by enabling us," as Bangs says, "to abrogate the functions of the diseased urethra by draining away the urine drop by drop without any effort on the part of the urethra or perineal muscles." When one considers the part that the perineal muscles play in respiration, defecation, micturition, different positions of the body, etc., it is easy to understand how important it is to obtain all the quiet possible in this region when inflamed and to obtain it by as early an operation as possible.

Moreover, where there is abundant perineal exudation, nothing will do any good that does not have in view the absorption of as much of the exudation as possible. The original irritant must be removed without leaving another in its place, which is bound to occur with leakage into a ragged, peri-urethral tear. By free incision there can be no retention of blood, which is almost invariably septic in such cases as the one under consideration; or of urine, which Harrison has shown to be as potent as blood in spoiling tissue.

Of the advisability of combining an internal with the external urethrotomy I will speak later on.

The second case, a Portugese, fifty years old, had had chronic cystitis with occasional exacerbations for three years. Internal treatment had failed to help him; and at entrance he was passing at frequent intervals a stinking, stringy urine. On sounding, no stone was found, and the bladder was carefully irrigated for two weeks with only slight improvement. Under ether a stricture of 20 F. calibre was found in the deep bulbous urethra, which was cut by external incision. On exploring the bladder with the finger, nothing was found beyond a very slight sinking of the floor, which was filled with tenacious pus. After thorough washing, the bladder was drained by a Watson tube. No stricture was found anteriorly. In a week healthy urine was passed, the tube was removed, and with the exception of a temporary cloudiness that yielded to alkalis, convalescence was uneventful, the patient being discharged about three weeks after operation, passing healthy urine at normal intervals through a urethra of 30 calibre.

In this case there was a possibility of a stone undetected by the sound, a prostatic bar or an accompanying pyelitis. Digital examination eliminated all doubts. The bladder, for the time being a pus cavity, could be

best drained at the same time that the stricture could be best removed. The latter would in all probability have yielded readily to dilatation, but the slightest break in the wall of the urethra would have merely served as an entrance for septic germs. Had there been no stricture nor cystitis, except what might be due to harboring the results of a pyelitis, it would not have been amiss to drain externally. Had there been a prostatic bar, as seemed likely, a few days' drainage would have been a surgical preliminary to prostatectomy by either route.

The third case, a gaunt, spare man of seventy-two, with no genito-urinary trouble since an attack of gonorrhœa when eighteen years old, began last year to have frequent micturition followed a month ago by retention. Voluntary micturition followed the use of the catheter after a week or so, until shortly before entrance, when he suddenly and without known cause passed considerable blood. When I saw him he was mildly delirious, passing almost pure blood, with echymoses over the perineum, scrotum and inner side of the left thigh. A large catheter passed easily into the bladder, if it did not enter a false passage which led into the left thigh. After stimulation the bladder was opened on a staff and the lateral lobes were found by the finger much enlarged, but of themselves offering no permanent bar to a complete emptying of the viscus. Exploration of the latter's walls showed nothing beyond moderate trabeculation. Hæmorrhage, that had been constant up to operation, ceased as soon as an opening was made. No stricture was found. For two or three weeks the patient was hard to control, frequently tearing off the dressings and getting out of bed. The tube was kept in a week; but leakage persisted about three weeks longer, that is, until his physical and mental condition had materially im-

proved. In about eight weeks he went home, passing normally a good stream of healthy urine and taking without trouble a 30 sound.

This case emphasizes several points. He looked and acted like one suffering from toxæmia, and I expected him to die on the table because of his wretched condition; in spite of the extensive laceration there was no pus; the sudden bleeding suggested a secondary hæmorrhage following rough catheterization. Whatever else existed, one would expect to find an œdematous, congested prostate that would best be relieved by drainage. Although in somewhat less than one-third of the cases of enlarged prostates can the bladder be thoroughly explored with the finger, there can be no objection to surgical rest pending a future exploration over the pubes. Fortunately everything in this case could be learned from below. Hæmorrhages from the bladder, whether from growths or lacerations are often best controlled by cystotomy. The endoscope can at times be used through the perineum; it was tried in this case, but the bleeding was too free to allow anything to be seen.

The fourth case opens up a wide field for argument. A carpenter, forty-nine years old, contracted gonorrhœa during the war, but denied any subsequent attacks. Two years ago he noticed a narrowing stream; and for the last six months he has dribbled constantly, day and night. There was the characteristic shrivelled meatus; percussion showed the bladder only two inches above the pubes; and all attempts without ether to pass a whalebone guide failed. The urine unfortunately was not collected, so that the renal condition was not known except in so far as his general good health would indicate sound kidneys. Failing to gain anything by hot baths, opium, etc., he was etherized; and after patient trial with a bunch of filiform guides,

one was passed into the bladder, and the posterior bulbous urethra was opened on a grooved sound, thereby freeing the tightest stricture. Carrying the incision backwards a little, the bladder was explored, but nothing pathological found. Of course, upon opening a way, the urine gushed forth before the wound could be plugged; but considering the small degree of distention of the bladder, I did not feel apprehensive of any bad result. The series of anterior strictures of which the smallest measured No. 10 F., were cut to 32 with the Otis urethrotome, and the bladder drained through the perineum after thorough irrigation. Recovery was uneventful; and he returned home in two weeks with a healed perineum, and taking a 32 sound with ease.

One of the objections to treating a deep, permeable stricture by external incision is the enforced rest in bed due to the position of the wound, and the chance of a fistula. But in a case like this, with a clear urine, the patient is confined very little longer than in an internal urethrotomy or a divulsion; and where aseptic treatment is carried out, the risks of a fistula are very small. Had there been renal degeneration an external operation was indicated rather than the opposite, because it is not uncommon for albumen and casts to disappear as soon as backward pressure is relieved; and even with considerable organic change in the kidney, the destructive process must be temporarily abated.

With regard to recurrence, authorities differ. Syme, Moullin, Bickersteth, Harrison and others report autopsies from two to twenty-six years after external urethrotomies, where not only recurrence had not taken place, but the urethra at the point of incision was actually somewhat enlarged, possibly due to the giving away of the cicatrix in the mucous membrane or to the tension of the cicatrix in the peri-urethral tissues. Chavasse says, "When no precautions are taken, I am

satisfied that narrowing of the urethra takes place much more slowly after a free external division than after any other means of treatment." Harrison records the largest proportion of permanent cures from external operation in a large series of cases taken indiscriminately, excepting those treated successfully by dilatation.

On the other hand, Keyes maintained in 1889 that the lumpy, irregular, tortuous stricture cannot be cured by perineal section, and recommended total excision of all the morbid tissue, and suture of the healthy divided ends of the urethra, or by transplantation of healthy mucous membrane if possible. But this has been pretty thoroughly tried in France and elsewhere, with, so far as the reports show, no better immediate or remote results than from the simpler operation.

As to the advisability of doing a combined internal and external operation, there can hardly be any question. Undoubtedly, the result of freeing a deep stricture externally is to materially do away with any contractions that lie anteriorly; some observers even claim a total disappearance of the latter when left untouched, if the wound is kept open long enough; but the additional operation is of slight severity. It can be done thoroughly, and asepsis is far more easily carried out and maintained. Harrison goes so far as to advise external urethrotomy for drainage when the strictures are anterior alone. I can find no modern supporters of the method of combining an internal anterior urethrotomy and a posterior divulsion; it is condemned as unsurgical by every writer that refers to it.

In conclusion, the indications that I wish these few cases to emphasize are as follows:

External perineal urethrotomy gives the best bladder drainage; it allows old cicatricial deposits about the urethra to soften down better and more quickly

than by any other method; it probably assures the best permanent results in deep strictures; it allows a swollen, lacerated prostate to shrink and quiet down quickly; it pacifies an irritable bladder; it may stop vesical bleeding; it is rarely, if ever, amiss in case suprapubic cystotomy is found necessary, and in many cases it is the best route to the bladder and prostate; it is not contraindicated with internal urethrotomy or where any operation is demanded, in renal disease, and ordinarily with modern asepsis it does not confine a patient in bed over a week; it allows a definite, positive or negative diagnosis in most instances, and in pathological cases it is rarely a difficult operation.

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