

On the operation of opening the urethra in the perinaeum / by Thomas Bryant.

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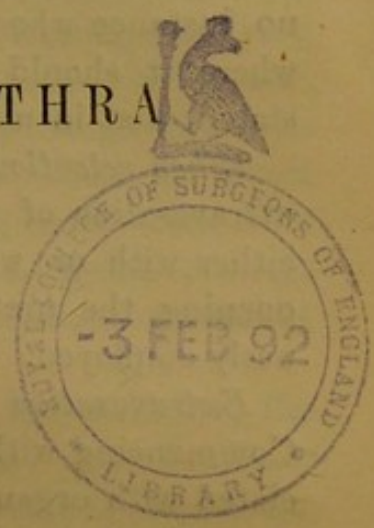
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*Guy's Hospital
Report 1858*

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ON THE OPERATION
OF
OPENING THE URETHRA
IN THE
PERINÆUM.

BY THOMAS BRYANT.



THERE have been few subjects of late years which have excited more discussion or difference of opinion than the one we are about to consider; and there are certainly none which have been so much influenced in their consideration by personal acrimony and personal feeling. This unfortunate and deplorable fact has doubtless led the minds of surgeons away from the true points at issue, and both those who advocate; and those who condemn its practice have been too much swayed by party feeling to form a just estimate of the merits of the operation.

That such an operation is both valuable and necessary in certain cases, most men now admit; and it is with the hope that I may be able to define the class of cases in which such an operation may be required, and to give some guides where the practice is to be adopted, that I now take up the subject which I shall illustrate by the notes of such cases as the kindness at Guy's Hospital has yielded to me.

The opening of the urethra without a staff will be denominated "perineal section;" and with one "external division" or Syme's operation. The division of the urethra in the perinæum will include both.

In uncomplicated retention of urine from organic stricture, where the urethra will not admit the passage of a catheter, this operation is never needed; the more simple, expeditious, and safe one of puncturing the bladder through the rectum having superseded this comparatively severe measure. I have no instance where it was performed, nor do I know of any where it should be selected, and it may, I think, be safely stated, that in none is it required.

When retention is complicated with other injuries, such as extravasation of urine, laceration of the urethra after injury, either with or without injury to the pelvis, the operation of opening the urethra from the perinæum may be advantageously employed.

Extravasation of urine associated with organic stricture.—Commencing with the subject of extravasation of urine associated with organic stricture, I think it will not be disputed that the treatment of the surgeon should be directed to two objects: *first*, to let out the urine that is infiltrated into the tissue of the organs, as the perinæum, scrotum, penis, and abdomen, and thus prevent that fearful sloughing which is so well known to follow such infiltration; and *secondly*, to prevent its extension and recurrence, by removing the causes, and thus by some means procuring an easy and direct channel for the passage of the urine.

Before extravasation of urine could occur as a result of retention from organic stricture, it is tolerably clear that the urethra must have previously become obliterated, or at least impermeable. It is true this impermeability may be only temporary, being caused by some spasmodic action of the urethra upon the organic stricture; but more generally it is the result of the gradual contraction of the urethral passage. If this latter is the case, as with some certainty it may be asserted, there remains no doubt that the most simple, safe, and perfect operation is the "perineal section," as by it the urine extravasated into the perinæum is let out, a free passage for the flow of the urine from the bladder is afforded, and the chances of a fresh extravasation is prevented. If the stricture can be divided at the same time, an advantage is undoubtedly gained; but in many cases the infiltration of urine has so disfigured the parts, that much difficulty is experienced in tracing

the seat of stricture, and thus its division is rendered difficult, or, may be, prevented.

Many surgeons I know are satisfied by making simple incisions into the cellular tissue, thus allowing the urine to find its way out through these artificial channels; but such treatment I hold to be unscientific and only trifling, satisfying about one of the objects to be attained; the extravasation still continues, and its cause still exists, and although the evils by such treatment are certainly diminished, there are great ones left, and the extra severity of opening the urethra from the perinæum, either with or without a metallic guide to direct the incisions, surely cannot outweigh the advantages gained by such a proceeding.

If a grooved staff can be passed through the stricture, the simple operation called "external division" by Professor Syme may be employed; but if such a measure is impossible, the more formidable operation of opening the urethra without such a director must be performed, and the simplest and best method is as follows.

Having placed the patient in the position for lithotomy, pass the finger of the left hand into the rectum, and apply its point to the anterior margin of the prostate and membranous portion of the urethra; the integument of the perinæum may then be divided in the median line, and a straight knife, with the edge turned upwards, passed directly backward to the apex of the urethral triangle, the finger in the rectum indicating exactly the extent; the incision may then be made upwards, and the canal freely opened and stricture divided. By this means the finger becomes a good director, and the urethra cannot fail to be opened. This operation is far superior to the ordinary one of cutting down directly upon the urethra, when no metallic guide can be employed, and should certainly be selected.

In cases of laceration of the urethra from an injury to the perinæum, where no extravasation has taken place, there is no question that the passage of a catheter, when it can be accomplished, is the simplest and best treatment, leaving the instrument in for three or four days. But, in many cases, such a practice is impossible, the most skilful hands fail to find the opening to the lower portion of the lacerated urethra, and, as a

consequence, unless some steps be taken to let out the urine, extravasation must follow, with all its dangers.

The question then for determination is—what is the best step to be taken? And I answer most unhesitatingly, the “perineal section.” By such an operation the extravasated blood is let out, the chances of the extravasation of urine are removed, and, what is more, by the passage of a catheter and its subsequent rest in the urethra, a more complete and perfect cure is likely to follow than when the junction of the divided passage is left to chance, for it is from such cases that the worst and most intractable forms of stricture are produced, and in which a subsequent perineal division of the urethra is generally called for.

CASE. I—J. B—, æt. 35, when jumping over a post injured his perinæum; the accident was followed by bleeding from the urethra and extravasation of urine. When admitted, catheterism was impossible; the urethra was laid open in the perinæum, and an instrument passed and left in for a week; the wound gradually healed, and the urine was drawn off regularly by a catheter, and upon the 17th day the perineal wound had ceased to afford any passage to the urine, and the man left well.

When this rupture of the urethra is associated with other pelvic injuries, the argument in favour of the operation is much strengthened; the dangers resulting from extravasation of urine would in such cases be evidently magnified, and the necessity for an easy and direct flow of urine becomes more apparent. By this operation such a result is easily obtained, and, unless a catheter can be passed, it should be performed.

When required in organic stricture.—Having thus briefly pointed out some of the cases in which the division of the urethra in the perinæum may be called for, I pass on to the consideration of the cases of organic stricture in which such a practice may be required, and without entering into the many points which have excited so much anger and dispute, I believe few surgeons will deny that there are cases where the

urethra is completely obliterated. The Museum at Guy's Hospital positively proves the fact.

With respect to the impermeability of the urethra, I will not say more, than that most surgeons do occasionally meet with cases where the passage of a catheter is a very difficult task, and at times impossible, unless the instrument is forced through all opposing structures; practically, such cases are impermeable, and are to be treated accordingly. The surgeon who has to treat finds an obstruction which he cannot fairly overcome, and although another may believe (and perhaps rightly) that in his hands the difficulty would be conquered, the fact remains that the surgeon who has to treat the stricture finds it impermeable, and he must consequently adapt his treatment to the difficulties with which he has to contend; and presuming that he is a competent man and of average ability, and remembering that surgical rules (as others) are for the many, and not for the expert few, I proceed with my subject, commencing with those forms of stricture which are impermeable.

The following short conversation which I held with a Scotch gentleman who was visiting Guy's Hospital after a long residence in Edinburgh, may, perhaps, help us to understand the cause of the discussion which has been so violent about impermeable and obstructed urethras. Upon asking him many questions about the treatment of cases of stricture, and in what manner a case of impermeable stricture would be treated in the north, he answered by denying the existence of such a case; for, argued he, a stricture is merely a contracted canal. When the urethra is therefore closed, it is no longer a canal, and consequently cannot suffer from stricture. It was thus evident that, although we employed the same words, we meant very different things; and I venture to conclude that this is really the cause of much of the difference of opinion which has arisen upon this subject.

It may, perhaps, be fairly stated as a general opinion—
“That in cases of organic stricture, where the passage of a catheter is possible and not difficult, where it does not produce either any injurious or painful constitutional or local disturbance, and where, after dilatation of the stricture, an occasional passage only of the instrument is required to main-

tain an open channel, no other surgical means can be called for." Such an opinion, I think, is fairly held by all surgeons, and any other treatment must require very great and positive evidence of its value, before it can be substituted for such simple means. But, unfortunately, such simple treatment is not sufficient for all cases of permeable stricture, and a second statement, I believe, may be made, which is as generally entertained as the preceding :

"That cases of stricture do occur occasionally which are so exquisitely sensitive, that the passage of a catheter, however skilfully performed, is followed by such severe constitutional and local disturbance, as to produce more harm than good, and in which it is clear some other method of cure must be employed. And others, which are relieved by means of the catheter and are even fully dilated, but which have a tendency to contract again immediately upon the omission of the treatment."

In the former case the treatment aggravates instead of relieving the symptoms ; in the latter it must be continued for life, to preserve an open passage.

Under such circumstances it is clear that some other plan of treatment must be adopted, and I believe the most beneficial to be the "external division" of the stricture from the perinæum ; and it is to Professor Syme that we are here especially indebted for having so ably recalled our attention to the treatment of such troublesome and painful cases.

Case of Irritable Stricture.

CASE II.—E. H—, æt. 28, was admitted with an irritable^e stricture of six years' duration ; the passage of a cathete^r produced intense pain and constitutional disturbance, without affording any relief. "External division" of the urethra was performed, and an elastic catheter passed and left in for two days ; upon the fourth day nearly all the urine passed through the wound ; upon the eleventh day the wound had nearly healed, and in one month he left well.

Contractile Stricture.

CASE III.—J. H—, æt. 39, had had stricture for nine

years, with frequent catheterism, and several attacks of retention; and five years previously his bladder had been punctured per rectum. Dilatation of the urethra was but of temporary benefit. "External division" of the urethra was performed, and a small calculus behind the stricture was removed; the catheter was left in for four days, and in one month he left well.

CASE IV.—J. G—, æt. 29, admitted with stricture of thirteen years' duration. He had been relieved frequently by catheterism in different hospitals, and one year previously had been punctured per rectum. The operation of "external division" of the urethra was performed, and a No. 13 catheter left in the bladder. In six weeks the wound had quite healed, and he left able to pass his urine in a full stream.

CASE V.—H. R—, æt. 44, with stricture of thirteen years' duration, was admitted for the purpose of being operated upon. His urethra was permeable and was not very contractile, but he had made up his mind to be "cut," and the operation of "external division" was therefore performed. The stricture was a very long one. In eighteen days the wound had ceased to allow the passage of the urine, and in one month he left well.

Impermeable Stricture.

Having thus disposed of those cases of stricture which are permeable, and which occasionally demand the operation of division of the urethra from the perinæum, I pass on to the consideration of those which are not permeable, and which may also demand the same operation.

In the majority of cases there is but little doubt that by constitutional means, such as perfect rest, opium, mild alteratives, and local depletion, the urethra will at last admit the passage of an instrument; and when this improved condition has been obtained, the treatment of the case becomes the same as has been just described under the heading of permeable strictures; but every now and then cases come before the notice of the surgeon where such a favorable result

cannot be secured, and, consequently, his treatment must be adapted to the wants of the individual case.

This impermeability may be the result of great irritability of the passage, of its gradual contraction, or of both combined; or it may result from perfect obliteration. Constitutional and local treatment may at times relieve some of these conditions, but occasionally all means fail, catheterism becomes impossible, and, as a consequence, some other plan of treatment must be adopted; and it is in such cases that the operation of dividing the urethra in the perinæum becomes of value.

CASE VI.—The following case well illustrates the subject: Robert M—, æt. 50, who had suffered from stricture for six years, was admitted with a urethra which would not admit the passage of the smallest instrument, and the attempt produced severe local and constitutional disturbance. Chloroform was given, but the urethra was still impermeable; consequently the “perineal section” was performed, and a catheter left in for two days. The man progressed favorably, and left, after four months’ residence in the hospital, cured.

Obliterated Urethra.

The cases of stricture in which the urethra is obliterated are certainly too hopeless to treat by catheterism, caustics, or any other such means. The hope of relief by the operation now under consideration is also not great, but it certainly offers the best chance for the unfortunate sufferer. It is not often that the urethra is ever wholly destroyed; some small portion of it is generally only involved, and by the operation of “perineal section” this portion may be remodelled to form a useful urethra.

Such cases, uncomplicated with perineal or other fistula, cannot be seen, as the urine must find its way out, and its general course is through the perinæum. Under the following heading, therefore, will cases be given to illustrate the treatment.

Organic Stricture with Perineal Fistula.

The next class of cases in which the operation of dividing

the urethra in the perinæum may be required, includes those forms of stricture associated with perineal fistula.

The fact of the presence of a urinary fistula, whether in the perinæum, scrotum, or other parts, does not necessarily render the treatment of stricture more complicated, as for the most part the fistula will heal when the passage through the urethra has become free. But as fistulæ are generally the result of abscess, or extravasation of urine, and as these seldom occur unless the urethra has become much contracted, if not impermeable or obliterated, the strictures associated with such a complication are mostly of a severe type, demanding, as a consequence, severer treatment; and the operation of dividing the stricture through the perinæum is not unfrequently required.

The presence of urinary fistula should not, then, much influence the treatment of the class of cases now under consideration; the condition of the urethra is the one important point to which our attention should be directed, as by treating and remedying its morbid conditions, we at the same time treat and generally cure the fistula.

The forms of stricture associated with perineal fistula which require division in the perinæum are the same as those previously described, viz., the irritable, the contractile, and obliterated urethras. In these cases, as a rule, the urethra is indurated and almost cartilaginous, the whole tissues of the perinæum, &c., are gristly from inflammatory induration, and the passage of the urethra is frequently completely obliterated, or so tortuous as to be practically impermeable. What treatment can be adopted? becomes then a serious question. Catheterism is impossible, and consequently the use of caustics, &c., cannot be employed, and I believe, the "perineal section" is the only surgical treatment. Let the urethra be opened, as previously directed, anterior to the prostate, the canal found, and stricture divided from behind. Let a catheter be then passed and kept in, and the subsequent treatment as in other cases. My note-book yields me many examples of such cases, and the following are brief notes of some of them.

Cases of Contractile Stricture with Perineal Fistula.

CASE VII.—C. N—, æt. 32, admitted with stricture of ten years' duration, associated with fistula for ten weeks, has had occasional attacks of retention and much violent catheterism. The urethra could admit a small catheter, but after dilatation it immediately contracted. The operation of "external division" was performed, and a No. 11 catheter passed and left in for two days. Upon the sixth day urine flowed through the penis, and the man left in one month (as his health was failing) with the fistula healed, but the wound still discharging a little urine. A full sized catheter could be passed.

CASE VIII.—T. S—, æt. 35, admitted with stricture of eight years' duration and perineal fistula of two. The stricture was permeable to No. 1 catheter, and when dilated it contracted immediately. The operation of "external division" was employed, and he left cured in six weeks.

Cases of Obliterated or Impermeable Urethra with Perineal Fistula.

CASE IX.—J. L—, a sailor, æt. 42, admitted with an impermeable and indurated stricture of three years' existence, and perineal abscess, was operated upon by the "perineal section," and a large catheter fastened in. The operation was followed by all the symptoms of pyæmia and secondary abscesses in the arms; but from this he perfectly recovered, and left the hospital three months after with a free urethra, but with a small discharging perineal fistula.

CASE X.—A. C—, æt. 45, admitted with a three years' stricture, and with perineal fistula of six months' existence. The urethra was cartilaginous, and quite impermeable. "Perineal section" was performed, and a No. 12 catheter introduced; upon the ninth day some urine passed freely through the urethra, and in six weeks he left cured.

CASE XI.—J. de M—, æt. 54, a sailor, with stricture of twenty years' duration, and with perineal fistula of nine weeks; with a urethra which was quite impermeable, and a perinæum

indurated and cartilaginous, was operated upon by the "perineal section," and a large catheter passed and left in for four days; he went on favorably, the induration disappearing, and the urethra becoming more patent, and he left in six weeks relieved, but with the perineal fistula still discharging.

CASE XII.—W. S—, æt. 58, a labourer, who had suffered from stricture for eighteen years, and from perineal fistula for seven weeks, was admitted with an impermeable, callous, and obliterated urethra. "Perineal section" was performed, and a large catheter passed and left in for eight days. Some rigors followed upon the fourth day, with fever; but in six weeks he left cured.

CASE XIII.—H. S—, æt. 55, admitted with stricture of twenty years, and with numerous perineal fistulæ of six months' duration, and with a riddled, impermeable urethra. "Perineal section" was performed, followed by slight bleeding, which was easily arrested. He left after two months' residence in the hospital with a patent urethra, but with a discharging perineal fistula.

CASE XIV.—W. S—, a cachectic, intemperate man, æt. 45, who had experienced difficulty of micturition for twelve years, with frequent attacks of retention of urine, was admitted with extravasation of urine into the perinæum, scrotum, and penis, with several perineal fistulæ, and an impermeable urethra; all the urine flowing through the perinæum. The operation of "perineal section" was performed, the whole perinæum being quite cartilaginous; a No. 6 catheter being fastened in the bladder. In three months the man left convalescent, although a small quantity of urine flowed through the perinæum.

Traumatic stricture.—In a previous page, when alluding to the treatment of cases of laceration of the urethra from injury, I mentioned that it was from such that the worst and most intractable forms of stricture were produced; and that consequently the operation of division of the urethra in the perinæum was not unfrequently called for. The experience of most men will enable them to understand the truth of such a remark,

and the pathologist will be prepared for such a consequence, well knowing the constant tendency for all cicatrices to contract. In rupture of the urethra the line of the laceration is generally transverse; consequently, by the contraction of the cicatrix, the calibre of the urethra must be gradually diminished. Practically, the worst cases of stricture are the result of such an accident; and when the canal has so contracted as to become impermeable, the only efficient treatment is the division of the stricture in the perinæum. If a director can be employed, the operation of "external division" is the simplest; but if not, the "perineal section" must be performed. Of course such treatment is only necessary when dilatation has failed to produce any permanent effect.

Cases of Traumatic Stricture.

CASE XV.—T. P—, æt. 30, one year prior to his admission, fell upon a spike, injuring the perinæum and urethra. The accident was followed by hæmaturia for one week, and difficulty in micturition, which has since gradually become worse. The canal is indurated, and catheterism very difficult, the stricture being hard and undilatable. The operation of "external division" was performed, and the man rapidly recovered.

CASE XVI.—D. Q—, æt. 19, having fallen across a beam, seven weeks before admission, injured his urethra, and was subsequently seized with retention of urine and extravasation; the parts were freely incised, and since then nearly all the urine has passed through the perinæum. When admitted, the stricture was impermeable and cartilaginous. The operation of "perineal section" was performed, and a large catheter introduced and left in; and in six weeks the wound had healed, and the man left with a free urethra.

The two following cases of traumatic stricture are in boys, and in neither was the operation followed by success; and it would appear that in them it is not so applicable as in adults, although it is difficult to suggest a better plan of treatment.

CASE XVII.—W. M—, æt. 13, having injured his perinæum

five months previously, was admitted with an impermeable urethra. The operation of "perineal section" was performed, and a catheter introduced; the wound, however, did not heal, urine flowing through it when he left the hospital, two months after.

CASE XVIII.—J. B—, æt. 14, fell across a beam, two days before his admission; the accident was followed by extravasation of urine, for which free incisions were made at the time, and the parts subsequently healed; upon the twenty-fourth day a catheter was passed for the first time, and he subsequently passed his urine in a good stream; the urethra, however, gradually recontracted, at last becoming impermeable. Upon the ninetieth day "perineal section" was performed, and a catheter passed and left in, but the parts still contracted, and he left two months after, with an impermeable urethra, and micturating through the perinæum.

CONCLUDING SUMMARY.

Conclusions.

1. In uncomplicated retention of urine from organic stricture, the operation of opening the urethra in the perinæum is not required, the more simple and safe one of puncturing the bladder through the rectum being preferable.

2. When complicated with extravasation of urine from any cause, it should be performed at once, and the stricture, when present, divided, if possible.

3. In laceration of the urethra from injury, when a catheter cannot be passed, the urethra should be opened.

4. And also when the above injury is associated with pelvic mischief.

5. Strictures are occasionally met with which are impermeable, and urethras which are obliterated.

6. That in cases of organic stricture, when the passage of a catheter is possible and not difficult; where it does not produce either any injurious or painful constitutional or local disturbance, and where, after dilatation of the stricture, an occasional passage only of the instrument is required to maintain an open channel, no other surgical means can be called for.

7. That cases of stricture do occur occasionally which are so exquisitely sensitive, and in which the passage of a catheter, however skilfully performed, is followed by such severe constitutional and local disturbance, as to produce more harm than good; and *others*, which are relieved by means of a catheter, and are even fully dilated, but which have a tendency to contract again immediately upon the omission of the treatment; in such cases the operation of "external division" is most valuable.

8. That the majority of cases of what are called impermeable strictures may be rendered permeable by constitutional treatment, but that some are undoubtedly impermeable; in such cases, the operation of "perineal section" is of value.

9. When the urethra is obliterated, the operation of "perineal section" may occasionally be demanded, particularly when associated with perineal fistulæ.

10. That the worst and most intractable forms of stricture are the result of injury, and in those cases the operation either of "external division" or "perineal section" is of great value.

11. That in boys the operation is not so successful as in adults, although no better can be suggested.