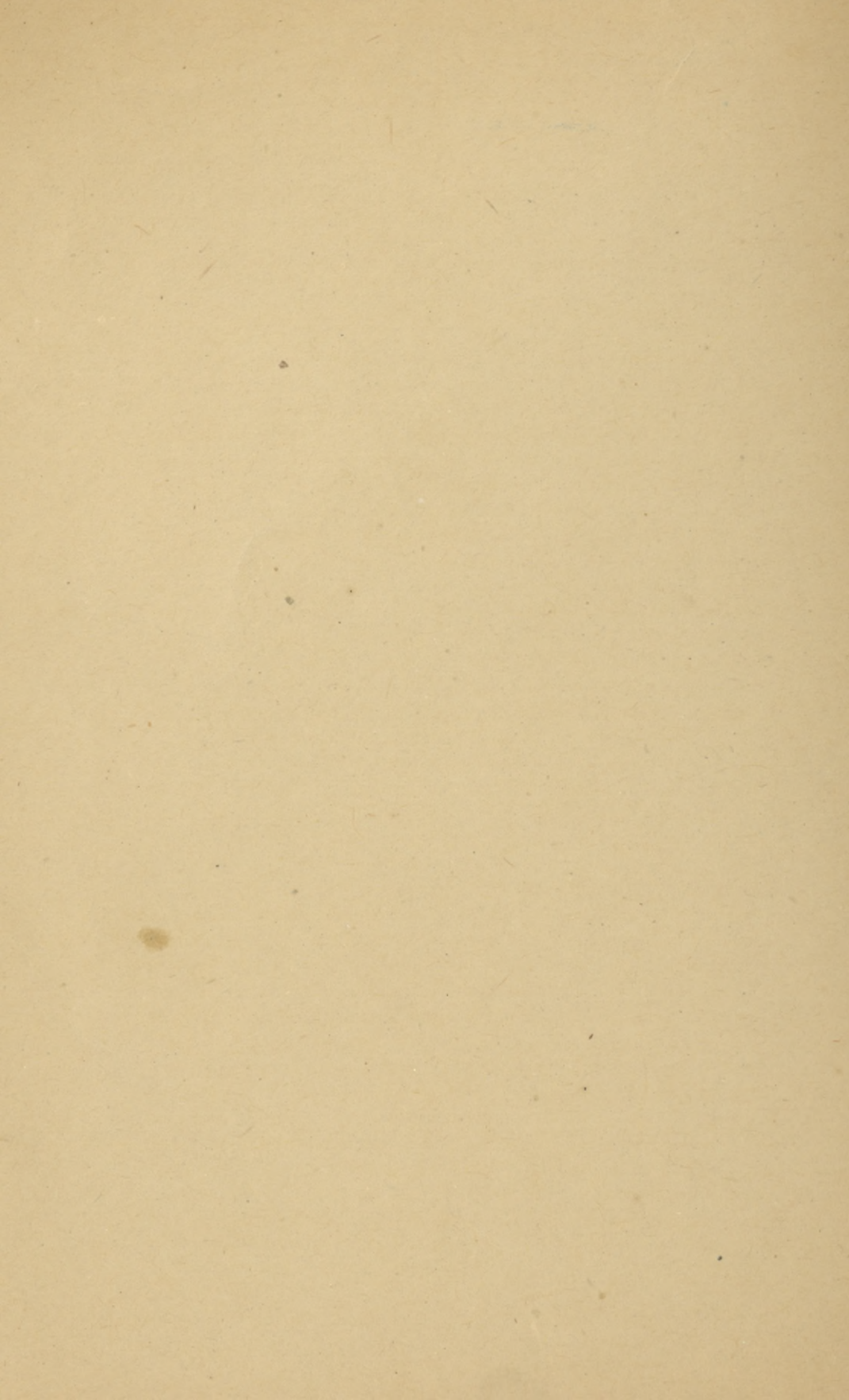


RAND (H.W.)

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urethrotomy.





EXTERNAL PERINEAL URETHROTOMY.

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There still seems to be a certain degree of distrust among some of the members of the profession, as well as among the laity, in regard to the safety and value of any cutting operation in stricture of the urethra; and more especially where an external urethrotomy is the one in question. From a moderately extended experience with interrupted dilatation, internal and external urethrotomy, I am led to believe that the latter operations, when properly done, are safer procedures in very many cases than interrupted dilatation, even when the latter is carefully and skilfully carried out. Where deep strictures are not of small calibre, or irritable, inodular or resilient, and the passage of the sound is not repeatedly followed by chills and fever, dilatation is still our best resource. Where, in deep strictures, any of the conditions just mentioned obtain, external urethrotomy should be promptly performed, for the dangers of delay, in at least a majority of such cases, are greater than those incident to the operation.

A few words as to technique: Where urine, however small in amount, passes through the entire urethra, it is nearly, if not always, possible to pass a guide, with cocaine, oil, time, patience, and a moderate amount of experience at command. Overdistension of the urethra with oil will sometimes defeat the operator's object, for such distension does not materially, if at all, dilate the stricture, but it does distend the more or less normal urethra in front of the coarctation, and may open up false passages and lacunæ in which the point of the guide will readily be caught. Enough oil only to thoroughly lubricate the urethra as far back as it can be carried by gentle pressure should be used. One may not succeed in passing a guide the first or second sitting, but will on the third or fourth trial, adopting different manœuvres and using instruments with beaks of different lengths and bent at different angles. Guides with corkscrew points I have never found of use. It is better to aspirate above the pubes in cases of retention, even if it must be repeated, and prepare our patient by a couple of days' rest and treatment, in the hope of then being able to introduce a guide rather than to operate without—better for both patient and



surgeon. I have never seen any trouble whatever follow a properly executed aspiration, even in the old, although serious symptoms have been said to occur at times. Such I believe have been due, rather, to the previous and oftentimes misdirected and violent instrumentation of the urethra.

The chief advantage of a guide is, undoubtedly, the certainty and ease with which the operator can gain access to the bladder; but while, in the absence of such a guide, he may be able to cut through the stricture to the posterior urethra, or tap it posteriorly, and then connect it with the anterior urethra by incision, the ultimate result will not be so good as it would if he had been able to make his incision directly through the old channel, however



narrow and tortuous it may be; for if permeable at all, it still retains sufficient of its original structure to insure against far less subsequent contraction than when the incision is carried entirely through peri-urethral tissue, as must occasionally be done when cutting without a guide. I have several times seen the strictured portion so narrow and tortuous that had a straight median incision been carried through it, the knife would have made a complete oblique section of the lumen of the urethra in two or more places.

In operating with guide and tunnelled sound, after the method known as Gouley's, we are in danger of cutting our guide as we reach the urethra. This I have seen happen in most competent hands. To prevent this accident, I have had some tunnelled sounds made so as to carry the guide upon the concavity of the instrument and thus out of the way of the knife, retaining the groove and tunnel on the convexity as well; for the original instrument best keeps the guide out of the way of the knife in the second method of urethrotomy of which I shall speak.

In a shallow perineum, where the stricture is only moderately extensive and not of very small calibre, I still prefer to operate much the same as originally described by Gouley. In a deep perineum, however, especially where there are extensive and tight strictures present, when the sound has been carried over the guide to the anterior face of the stricture, I turn its concavity to the floor

of the urethra, so as to make its beak prominent in the perineum. The assistant presses it firmly and steadily against the floor of the urethra, taking care not to make a false passage with its point or push it through the incision when the urethra is opened. The operator, steadying the instrument between his fingers, cuts down upon and exposes its beak. He then passes retraction threads from within out through the edges of the urethra and overlying tissues. The distal end of the guide is now withdrawn from the sound and out through the perineal wound, still being careful to leave the proximal end in the bladder. The sound is now with-



drawn, and if necessary a blunt hook is used to retract the upper end of the urethral wound. In tortuous and inodular strictures, when this stage of the operation is reached, I have often found it difficult to follow the guide with Gouley's probe-pointed knife, or with any other instrument hitherto advised for the purpose. This was especially so in a deep and vascular perineum where the stricture was so close as to be already fully distended by the guide, and admitted the knife only by the exercise of so much force as to endanger cutting the guide—an accident that once happened to me. Some old fibrous strictures cut with even more resistance than do some of the whalebone instruments.

To meet this difficulty, I have had Messrs. Tiemann & Co. make for me this small stricture knife. Its blade is narrow, and one and a quarter inches in length. At its point is a ring just large enough to admit the average guide, and as delicately made as is consistent with the work required of it. This knife is threaded over the guide and pushed through the stricture until diminished resistance indicates that division of the stricture has been accomplished. In my recent cases this part of the operation has been greatly facilitated by its use. The knife should be carried along in the axis of the guide while the latter is kept moderately tense.

After dividing all bands that are found in the roof of the urethra, and all anterior strictures, using the dilating urethrotome for the latter, the bladder and urethra are thoroughly irrigated with Thiersch or a saturated boric acid solution, and a full-sized catheter is introduced into the bladder for drainage.

The administration of salol for two or more days prior to

operation, and for several days thereafter, an aseptic operation as far as such is possible in these cases, the retention of a catheter for twenty-four to forty-eight hours, the regular douching of bladder and urethra once or twice in twenty-four hours, have practically done away with urinary fever, in my experience. In only three of my last twenty-two cases has there been a chill or a temperature above 101° . In the first two of these cases the catheter became obstructed during the night, and urine escaped by its side. In the third the patient had hæmophilia, and I was obliged to tampon a second time to restrain hæmorrhage.

I have records of fifty-one cases of external urethrotomy. All made good recoveries. In a few of my earlier cases which were done without preparation or the subsequent use of catheter drainage, marked urethral fever followed, and the period of convalescence was somewhat protracted. In none has there been suppression of urine, although in some but little urine was excreted for the first few hours. In only one case was there troublesome bleeding of any duration, and that was in the case of hæmophilia previously mentioned. In only four cases was any ligature required. In none did fistula follow operation. Where fistulæ had existed prior to operation, they closed promptly thereafter in all but two cases. The first was a sailor, with traumatic stricture following extensive injury of the perineum and complete rupture of the urethra. In the second, a fistula had existed for three months prior to operation, and through it the patient had passed most and, at times, all of his urine during that entire period. It was three inches in length, and extended from the left side of the scrotum near the thigh to the anterior part of the prostatic urethra. Thorough curetting at the time of operation, and later, stimulating injections, have not yet brought about final closure, even at the end of twelve weeks, although it now permits only the slightest trace of leakage, which is daily becoming less evident.

All but three of these cases had strictures of large or small calibre in the penile urethra, which were operated on at the same time by dilating urethrotomy. In internal urethrotomy I have never found it necessary to drain the bladder by the introduction of a catheter through a puncture in the perineum and membranous urethra, as suggested by Harrison. Operations anterior to the bulb do well enough without it if the urine is normal; and when the bulbo-membranous region is in-

involved, perineal section is more accurate and safer than internal urethrotomy, even when the latter is combined with this form of bladder drainage. In a case of anterior stricture associated with cystitis I should, however, adopt Harrison's method both on account of the beneficial effect of such drainage upon an inflamed bladder and to prevent contact of pus-laden urine with the incised tissues. In the few cases in which I have been unable to introduce a guide, I have found Wheelhouse's operation the least difficult and most satisfactory method.

Where an extensive incision of the perineum must be made, suture of the upper portion of the wound, including all the tissues down to the urethra, materially hastens its closure. Not infrequently have I had patients pass all their urine *per urethram* after the seventh day, and some as early as the fifth, but complete closure of the more superficial parts of the wound at too early a period must be avoided.

I have learned to look upon a clean and well-performed external urethrotomy as an operation of far less danger to the patient than the frequent introduction of flexible bougies, or guides and tunnelled sounds, in cases of stricture of the deep urethra that are of small calibre and that are passed with difficulty. In inodular, irritable and resilient strictures, of whatever calibre, it is the most prompt, effective and safe procedure at our command. In the class of cases that most urgently demand this operation, a permanent cure cannot, unfortunately, be promised, and the future occasional use of the sound is a necessity. How certain it is that recontraction will very often occur, without this precaution is taken, is well illustrated by the case of a patient, aged 72, referred to me by Dr. G. C. Jeffrey. This man was operated on by Sands in 1872 and by Weir in 1883, and yet with all this experience he neglected to use a sound, and a few months ago I did a third external urethrotomy upon him, from which he made a prompt recovery. In six cases, however, which I have been able to observe for from three to ten years, there has been no tendency to recontraction. These were cases in which the strictures were of small calibre, but involved only about an eighth of an inch of the urethra.

It would be very desirable to have accurate statistics on this point, for I am inclined to believe that this free division of strictures both on the floor and roof of the urethra, is followed by a permanent cure in a larger proportion of cases than the operation has hitherto been accredited with.

