On stricture of the urethra and fistula in perineo / By James Syme.

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BY

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PREFACE.

When attention has been long devoted to the attainment of an important object, and when the most elaborate efforts have proved ineffectual for the purpose, it is not easy to persuade those engaged in the pursuit, that they have overlooked a simple and easy mode of obtaining success. The method of treating obstinate strictures of the urethra, recommended in the following pages, was communicated to the profession five years ago, through the periodical press; and again, two years ago, in a collection of surgical essays; but, so far as I know, it has not yet been adopted by others even in a single instance. Being deeply impressed with the importance of the subject, I feel it my duty to make another attempt, with the view of awaken-

ing attention to it, by publishing in a separate form full details of the procedure, together with its advantages, positive and comparative, and also further evidence of its efficacy, from cases in public as well as in private practice. Having done this, I leave the matter to the profession, trusting that, whatever may be their decision, they will at least give me credit for an earnest desire to render the opportunities committed to me conducive to the improvement of Practical Surgery.

EDINBURGH, 1*st November* 1849.

STRICTURE OF THE URETHRA.

THE frequent occurrence in surgical practice of cases in which strictures of the urethra have existed during the greater part of a lifetime, notwithstanding assiduous efforts to remove them by practitioners of the greatest skill and experience, evidently shows that the means of treatment which have hitherto been employed, must be either uncertain in their operation, or only temporary in their beneficial effect. But when the suffering and danger, together with the mischief, both local and general, occasioned by the disease are considered, it must be admitted that such an imperfection in the art of surgery is a subject deserving the greatest attention.

The object of the following pages is to explain and recommend a method of treatment which has been found an effectual remedy for the disease, even in its most inveterate and obstinate form, and which, therefore, it is hoped, may supply this deficiency.

In estimating the value of such an addition to the resources of surgery, it would be necessary to take into account, not only the inadequacy of the established modes of management to afford in most cases more than palliation or temporary relief, but also the danger which attends their use of causing more serious evils than those they are intended to remove or alleviate. Before adverting more particularly to this part of the subject, however, it will be better in the first place to explain the steps which have led me to the conviction, that an expedient so simple as the one about to be described, is sufficient to accomplish quickly, safely, and surely, what has resisted all the prolonged, complicated, and hazardous procedures which ingenuity has devised, or patience endured.

The following case originally appeared in the "London and Edinburgh Journal of Medical Science," October 1844—and was reprinted in a collection of "Contributions to the Pathology and

Practice of Surgery," * published in 1847, from which it is here quoted, together with the remarks prefixed.

Case I.

"Although the distinction between spasmodic and organic strictures, or, in other words, between the semblance and reality of contraction, has been long established in Surgical Pathology, the latter of these conditions was not supposed to vary except in degree and situation. The treatment, therefore, did not seem to require any diversity of procedure, and in this country most practitioners, preferring the plan of dilatation by bougies, employed it upon all occasions. But however efficiently strictures of the urethra might in general be thus treated, no surgeon could employ the practice to any considerable extent, without encountering embarrassing cases that presented more than usual difficulty, or even baffled every effort to accomplish recovery. I do not here allude so much to the mere tightness of contraction, and the difficulty consequently experienced in passing a small instrument through the stricture, as to the unyielding

* Edinburgh: Sutherland and Knox.

disposition manifested by the constricted canal, and its tendency to contract, perhaps even more closely than before, after being partially or completely dilated. One other feature of such obstinate cases of great importance to notice is, the strong and general sympathy of the system with every change taking place in the local disease; whence rigors and febrile attacks, leading to various derangements in different parts of the body more or less intimately connected with the part originally affected, are apt to result from attempts even of the most gentle kind to pass instruments into the bladder. Some constitutional disturbance, as that which occasions arthritic symptoms, would sometimes appear to be the cause of this particular state of stricture; and a local irritation, such as that of urinary concretions, is certainly adequate to produce the same effect, since all the features of excessive obstinacy and irritability are occasionally presented by stricture, in patients suffering from stone, and disappear at once so soon as it is removed. But, independently of either the one or the other of these influences, the peculiar condition of stricture to which I wish to direct attention, may exist in its most perfect form, and is then found to constitute one of the most vexatious subjects of treatment, so long as it is combated by the means in ordi-

nary use. The patient, in vain expectation of relief, is apt to require in succession the assistance of many different practitioners, each of whom, supposing that the previous want of success has depended upon deficiency of skill or care, proceeds to a repetition of the dilating process, destined to afford only a similar disappointment, or the more serious consequences already mentioned as not unusual under such circumstances. The following case presents a good illustration of this obstinate stricture. It led me to adopt the mode of treatment which I am now desirous of recommending, and will probably prove more impressive if allowed to stand alone, than if associated with other instances of the operation. I have repeatedly performed it with perfect success, and never with any unpleasant consequences; so that instead of dreading, as formerly, to meet with the form of stricture in question, I now undertake its charge with the confidence of a satisfactory issue; and, while doing so, reflect with much regret upon the suffering that it would have been in my power to relieve, if this plan of treatment had occurred to me at an earlier period.

"About six years ago, I was requested by the late Dr Hay to take charge of a gentleman who had suf-

fered long and severely from stricture of the urethra. He was between forty and fifty years of age, of tall stature and robust form. His complaint had existed twenty years, and during the earlier part of this period had been partially alleviated by the introduction of bougies, but had then gradually increased, until at length the suffering occasioned by it was altogether intolerable. During both day and night, the calls to make water were extremely frequent, and excited the most violent expulsive efforts, which, aided by a milking-like manipulation of the penis, and pressure along the perineum, never produced anything more than a scanty dribbling discharge. From the bladder being thus imperfectly emptied, the urine was constantly passing away insensibly, so as to keep the clothes wet, with what discomfort to the patient may be more easily imagined than described. He was peculiarly susceptible in regard to atmospheric changes, and especially in damp weather suffered an aggravation of the symptoms. The urine, when collected on such occasions, was found to deposit large quantities of glairy mucus, from which indeed it was never quite free.

On examination, I found a tight stricture between five and six inches from the orifice of the urethra; and at the second or third attempt, succeeded in

passing the smallest-sized bougie fairly through it into the bladder. I then supposed that, as usual, there would not be any further difficulty in treating the case, and desired the patient to call upon me twice a-week, unless when the weather or any other circumstance should render a longer delay necessary. The progress, though not rapid, at length enabled me to pass No. 5 of my scale, equal to No. 1 of that in common use, when I found it impossible to make any advance. Indeed there was little encouragement to persevere in attempting this, as, notwithstanding the degree of dilatation that had been accomplished, there was not any appearance of relief from the symptoms of the disease.

I then proposed to confine the patient to bed, and keep a succession of catheters, gradually increased in size, in the bladder. He made no objection, and was greatly pleased to find that, instead of the irritation he expected, there was at once obtained complete relief from all his previous uneasy feelings. He read and wrote, ate and slept, without the least disturbance, drawing off the urine from time to time, and observing to his great satisfaction that the mucus had entirely disappeared. At the end of ten days I withdrew the full-sized silver catheter then employed, and before twenty-four hours had expired, found the

complaint in every respect exactly as it had been before the process was commenced.

"Some months after this, I divided the stricture from within by means of a catheter containing a lancet blade, which was protruded from its sheath after the instrument had been passed through the seat of contraction, and kept in this expanded state while the catheter was withdrawn. A large bougie was immediately afterwards passed with perfect ease; and again hopes of success were entertained. But next day things were in precisely the same state as formerly.

"Several months having elapsed without any change, it was resolved to combine the two last-mentioned modes of treatment. In the first place, I divided the stricture as before, but on both sides, by means of two lancet catheters, cutting right and left, and then introduced a full-sized catheter into the bladder, where it was retained for a week. For some time afterwards it seemed as if benefit had resulted from this procedure, and the patient, by frequently passing a bougie or catheter through the strictured part, was enabled to make water in a tolerably full stream. But this imperfect relief was of short duration, and by the end of two or three weeks, the frequent calls, laborious straining, and copious mucus,

proclaimed that the stricture had regained its former condition.

"The patient now protesting that life was not desirable under the torment of his complaint, and entreating me to employ some efficient measure of remedy, no matter at what expense of pain or risk of danger, I resolved to divide the stricture by free external incision. With this view, a small staff, grooved on its convex side, having been introduced, I made an incision in the raphe of the perineum from the bulb to the anus, and then feeling for the stricture, which was easily recognised by its surrounding induration—ran the knife fairly through the whole extent of thickened texture. A full-sized catheter was substituted for the staff, and retained for a few days. The patient suffered little from the operation, except some uneasiness from irritation caused by the urine passing through the wound. When it closed he felt quite well; and he continues to do so, though several years have now elapsed. He has never required the bougie, and in every respect enjoys the most perfect health.

"In this case, the obstinacy of resistance, and tendency to contract, occurred in an extreme degree. Indeed, the latter peculiarity was so strongly marked, that it suggested the idea of an adventitious elastic

texture, or rather one possessing contractile properties similar to those of the middle coat of the arteries. It is plain that the most prolonged use of bougies would not have effected a cure. And the result of retaining catheters in the urethra, shows that this mode of treatment is not so effectual as it has been represented, since it only produced a temporary dilatation. But the most important lesson is to be drawn from the results of the different trials that were made of internal incision by lancet catheters. Additional space was thus at once obtained, and the passing of bougies was greatly facilitated, without any lasting difference being effected in the contractile power of the stricture. It hence appears that this mode of treatment affords no practical advantage, since, in the ordinary condition of stricture, bougies accomplish recovery on the easiest possible terms; and in its obstinate form, an internal incision does not prove sufficient to relieve the patient. The reason of this, I believe to be, that the obstinate stricture in question requires, for its complete and permanent remedy, a thorough division of the firm texture which surrounds the contracted part of the canal."

The only objection to which the evidence afforded by this case seems exposed, is the want of corrobora-

tive testimony from similar results having been experienced by other patients, since a single fact of the kind may be attributed to some peculiarity of the individual or part affected; but the following additional instances of a successful issue, under circumstances of the same kind, will, it is hoped, remove any doubt that may remain in regard to the efficiency of the treatment I have ventured to propose.

Case II.

About the middle of last February, Mr Hamilton Bell asked me to see an officer of the East India Company's service, who had been obliged to return home between two and three years before that time, on account of illness from stricture and ague. The former complaint had existed during six of the seven years which he had spent abroad, and had latterly become so severe as to interfere seriously with his health. Micturition was extremely laborious and painful, while the calls to it were so frequent, that they prevented rest at night, and destroyed all comfort during the day. But what he suffered from most, was an extreme liability to feverish attacks, of intense severity though short duration, and succeeded by a degree of lassitude denoting great exhaustion. Not-

withstanding every precaution, they occurred so frequently, that he was hardly ever free from the paroxysm or its effects ; and, in consequence of this long continued drain upon his strength, had been reduced to a state of excessive emaciation and weakness, with complete prostration of mental energy, not less than bodily power. Eighteen months of careful treatment by bougies having failed to afford the slightest relief, he had at length come to regard retirement from service as his only alternative; and the motive of his requesting me to visit him, was not so much any expectation of relief, as the desire to get his mind settled with regard to a step of so much importance, not only to himself, but to a wife and children dependent upon him for their support.

In proceeding to examine the urethra, I found the patient so morbidly sensitive, that the slightest touch of the bougie produced the most violent convulsive movements, and I was therefore obliged to place him under the influence of chloroform before the requisite information as to the state of the canal could be obtained. I then readily passed a small grooved director, equal in size to No. 1 of the bougie scale, through the stricture, which was at the bulb ; and, having ascertained that there was no other obstacle to recovery, expressed my persuasion that division of

the contracted part of the urethra would quickly restore the patient to health. On the 2d of March, chloroform having been again administered, I performed the operation without the slightest delay or difficulty. The catheter was removed at the end of forty-eight hours, and by the end of ten days the urine, which had been gradually resuming its proper course, ceased entirely to be discharged through the wound. The patient then got out of bed, and rapidly regained his strength, so that, by the end of another week, he was able to go into the country, where he has since remained in the full enjoyment, and with all the appearance, of robust health. The operation not only removed all trace of the stricture, but completely relieved him from his morbid sensibility, so that a full-sized bougie may be passed without the slightest uneasiness; and also from the feverish attacks—not one of which has occurred since he was under my care. He is now preparing to rejoin his regiment in India.

Case III.

D. I., aged thirty, a confectioner, was admitted into the Royal Infirmary on the 17th of December

1848, suffering from the symptoms of stricture in a very aggravated form. He had had retention of urine for twenty-four hours, and stated that he was liable to such attacks, in the intervals of which, to use his own words, ‘ he could neither make nor keep his water,’ being unable to void it voluntarily in a stream, or prevent its constant exudation by drops, with the effect of wetting and rotting his clothes, irritating the skin, and causing ulceration of the prepuce and thighs. His condition was indeed wretched in the extreme; and had existed, with progressive aggravation, for five years. The stricture would not permit the smallest catheter to pass, but was so far relaxed by the attempt to effect this, followed by the warm bath, as to permit the urine to escape by drops, and thus afford temporary relief.

On examination, I found that there were two strictures, one being at the neck of the glans, and the other about four inches and a-half from the orifice. It was the latter which, from its extreme tightness and excessive irritability, appeared to be the chief seat of the patient’s complaint. The smallest bougie, and even a probe, could not be passed through it; but, after several trials, a very slender knitting needle was introduced, and followed by others of somewhat larger size. No relief being

thus obtained, and several weeks having been spent in the hospital, without the slightest benefit, it seemed necessary to adopt a more efficient course.

On the 20th of January, a small grooved director, not exceeding in size the largest knitting needle permitted to pass, having been introduced, and the patient being placed in the position for lithotomy, an incision was made in the middle line of the perineum, so as to let the conductor be felt, and allow the knife to be inserted into its groove. The stricture was then divided, and a moderate-sized catheter secured in the urethra to prevent any risk of extravasation.

The patient seemed to experience relief from the instant the stricture was divided, and suffered no inconvenience from the catheter, which was withdrawn at the end of forty-eight hours. He made all his water through the wound for three or four days, and then found it gradually resume the natural passage. On the twelfth day after the operation, he had ceased to discharge any urine by the wound. He could retain it for five hours at a time, and passed it in a full stream. He also bore the introduction of an ordinary-sized catheter without uneasiness. On the 2d of February, he was dismissed, in all respects perfectly well.

Case IV.

J. T., aged thirty-six, was admitted into the Royal Infirmary on the 29th of November 1847, suffering very severely from stricture of the urethra. He stated that about three years before he had lain intoxicated in the street during the whole of a winter night—in the morning finding himself, to use his own expression, "frozen to the ground;" and immediately afterwards had begun to suffer from the symptoms of stricture. In the course of the preceding winter he had been eleven weeks in the hospital under treatment by dilatation, with considerable but only temporary relief, as the symptoms returned very soon after his dismissal.

In these circumstances, it appeared necessary to divide the stricture, which was extremely tight, and seated at the bulb. I performed the operation on the 2nd of December. The catheter was removed on the 4th; and the patient was dismissed, with complete relief from his complaint, on the 3rd of January.

Case V.

The following statement, by a surgeon in London, who had charge of the patient to which it refers before he came under my care, will give a better idea of the severity and obstinacy that characterised the symptoms than any description not founded upon observation.

"London, April 16, 1849.—I first attended Mr —— about seven years since. At that time he was labouring under an impermeable stricture which had resisted for a considerable period all attempts to pass instruments beyond it, although made by several hospital surgeons of eminence. One surgeon had used considerable violence, which, besides producing great constitutional disturbance, accompanied by a painful swelling of the perineum, was the cause of an extensive chronic induration of that part. His general health was bad, and the slightest exposure to cold produced severe rigor. Under the treatment I adopted, the stricture was so far removed as to admit full-sized instruments, and the patient returned to the country able to pass them himself.

However, after a time increased difficulty in passing the instruments arose, and the patient gradually diminished their size. At length none but the smallest size could be passed, and the patient came up to me. I need not detail the treatment adopted during the six weeks or two months he remained in London, as no material or permanent benefit resulted from it. The summer before last, he was again very much troubled by continued and excessive soreness at the seat of stricture, spasms, rigors, and occasional attacks of retention of urine. The urine was unhealthy, and deposited a copious mucous sediment, and the general health bad. By my direction, he remained in bed (in the country), with a catheter kept constantly in, and gradually increased until the largest size could be passed with ease. Under this treatment the urine became healthy, and the general health improved. But almost within forty-eight hours after the withdrawal of the largest instrument, No. 2 could hardly be passed. Since then, until about two months ago, the patient contented himself with occasionally passing a catheter at intervals of a few days or weeks, according to circumstances, and retaining the instrument for twenty-four hours, when he withdrew it, and introduced a larger one, which he kept in for twenty-four hours more. About

five months ago catarrh of the bladder, irritative fever, soreness, and spasms, returned and became constant, with frequent rigors and retention of the urine. Two months ago, he again came under my care. By remaining in bed, with catheters retained, and medical treatment, the urine became healthy, and the more urgent symptoms, both local and general, were relieved. But the stricture still did not admit a larger instrument than when he came to town. Being fully assured that *no* treatment with urethral instruments would or could be of any service in this case, and having accidentally read the case reported in your work, entitled 'Pathology and Practice of Surgery,' I mentioned the operation to the patient, telling him of the success you had met with. At the same time, being unwilling to take the whole responsibility of recommending the performance of an operation of which I had no personal or practical knowledge, I proposed a consultation with Sir B. Brodie, who accordingly saw the patient with me, and agreed that some such operation afforded the only prospect of anything like permanent relief to him.

"P.S.—I should add that Mr ——, is not a strong man, but, on the contrary, weak, nervous, and irrit-

able, dreadfully alarmed at the prospect of an operation, and sure to suffer rigors from any irritation."

This not very promising patient arrived in Edinburgh on the 6th of June, when, in addition to the particulars above-stated, I learned that he had been an officer in the service of the East India Company, and retired from it in 1826; since which time he had suffered from the disease. On his way here he had been attacked by a fit of retention at Carlisle, and detained there until he obtained relief by passing an elastic catheter of the smallest size, but which was, nevertheless, so tightly grasped by the stricture that serious apprehensions were entertained of its being broken in the withdrawal. Painful spasms and copious mucous deposit, consequent upon this attack, prevented me from making any examination for several days, and the patient had recourse to his usual expedient for obtaining relief by lying in bed with a small catheter retained. At length, the urine becoming clear and the spasms subsiding, I ascertained that a small grooved director could be passed through the stricture, which was at the bulb; and being unable to detect any other obstacle to recovery, I did not hesitate to undertake the operation.

On the 13th, the patient being in a calm deep sleep, induced by the agency of chloroform, I divided the stricture, and introduced a moderate-sized silver catheter into the bladder, without any delay, so that the operation was completed in less than a minute. About half an hour afterwards, the patient awoke, and found himself lying comfortably without pain or uneasiness. The catheter was removed at the end of forty-eight hours, when, to his great delight and astonishment, the water flowed through the urethra in a full stream, the sound of which was said by him to be more pleasing than the finest music. None of the urine escaped by the wound, and no other inconvenience resulted from the operation. On the 13th of July, the patient returned home, where his progress in the recovery of general health will appear from the following extract of a letter, dated the 1st of August:—"I cannot adduce stronger evidence than by stating that a few days since, Dr ———, the medical referee of a life assurance office, voluntarily remarked that he should not have the slightest hesitation in recommending my life for assurance, although in May last he did not consider it worth a year's purchase."

Case VI.

A private soldier in one of the Queen's regiments serving in Ireland, thirty-three years of age, applied to me last winter, on account of a stricture at the bulb of the urethra, from which he had suffered nine years, and latterly so much as to render the discharge of his duty very oppressive. The military surgeons to whom his case had been submitted, being unable to pass instruments through the contracted part of the canal, had proposed his retirement from the army; but to this he felt averse, as a short additional period of service would entitle him to a pension, and he had therefore obtained leave of absence, in the hope that I might enable him to make out his time.

At the first attempt, a bougie of the smallest size was passed into the bladder, and successive steps of improvement were afterwards obtained in respect to dilatation, but without any corresponding change for the better in regard to micturition, which continued no less frequent and painful than before. Thinking that this unsatisfactory progress might proceed from exposure to the cold wet weather which then prevailed, I advised the patient to go into the

hospital, which he accordingly did on the 22d of January.

The treatment by dilatation was there pursued, with all possible care and attention; but still failing to afford relief, and the patient's leave of absence being nearly exhausted, I proposed to divide the stricture, and meeting with no objection, performed the operation on the 8th of February, with perfect facility. The catheter was removed at the end of forty-eight hours. The urine passed partly by both orifices for a week, then gradually diminished to a few drops by the wound, and, in the course of a few days, entirely resumed the natural channel, the patient feeling completely relieved from all his former uneasiness, and having a full-sized bougie passed occasionally without the slightest obstruction. He was dismissed on the 14th of March, in all respects ready to resume his place in the ranks.

Case VII.

A sergeant in one of the Queen's regiments serving in Scinde, twenty-six years of age, who had returned home with a detachment, was recommended to my care on account of a stricture of the urethra

at the bulb, under which he had laboured for three years. Finding that the contraction was very tight, and learning that the patient was desirous of repairing to his depôt without delay, I proposed division of the stricture, and performed it on the 4th of April; the catheter was removed on the 6th, and by the end of the week the whole of the urine passed by the urethra. A full-sized bougie was passed twice or thrice afterwards, with the interval of a few days, and the patient then proceeded to his duty at a military station in England, where, I am informed, he has continued perfectly well.

Case VIII.

The following case may be related in the words of the patient, extracted from a letter containing many grateful expressions, which he addressed to me soon after his recovery :—

"I very early in life found that I had stricture, and, in the year 1816, placed myself under the care of Mr Liston, who employed bougies up to a large size, and I may say then cured me. In a few years, however, the stricture returned, and I then applied to Sir

William Newbigging, who afforded me great relief by bougies, and instructed me to use them myself. I continued to do so for many years, at the same time reading all works on stricture that fell in my way, and consulting many medical men; but all the consolation I met with was, 'you must go on with the bougie.' I cannot describe all that I have suffered from the stricture. From time to time I have had retention of urine, causing such laborious straining as I have often feared would induce apoplexy, having a tendency of blood to the head. I have had to carry my bougie into public places and private companies. At other times the water has passed so suddenly and unexpectedly as to occasion me no less annoyance. I have been very sensible of atmospheric changes, especially in the spring time, and during the prevalence of east wind, which always caused an aggravation of the symptoms. I have also frequently suffered from lassitude, weakness of the joints, and pains through my body,—all of which, being now greatly relieved, I must suppose proceeded from the stricture.

"I had suffered greatly, and was in the daily use of my bougies—indeed could not make my water without them—when I went to you. You at first relieved me by passing instruments, and did not think badly of my case; but after a time, finding that there was

no improvement, recommended an operation as the only effectual remedy. I submitted to it, and now consider myself perfectly cured After having the stricture upwards of thirty years, having often thought and laid my account that it would ultimately kill me, I now believe, as you said, that whatever I die from, it will not be *stricture*. No one need fear the operation; I have suffered more from the passing of a bougie. Within eight days after the operation, I was out taking short walks, and a few days thereafter in Edinburgh, quite well again."

This patient is a retired member of the legal profession, residing at the distance of a few miles from town. The operation was performed on the 11th of July. A little urine passed by the wound during the evening of the day on which the catheter was removed, but none afterwards.

Case IX.

During my residence in London, an officer of the navy applied to me on account of a stricture of the urethra, so obstinate as to have been deemed irremediable. It had existed since his midshipman

days, and progressively become more troublesome, notwithstanding many long courses of treatment by various surgeons at home and abroad. The local symptoms were extremely severe in respect to the frequency and difficulty of micturition, which was accomplished by drops or the smallest of streams; and the constitutional disturbance also was excessive, through frequent attacks of the most violent fever. The patient had been early and honourably promoted to the rank of commander, and repeatedly offered employment which he felt it necessary to decline from the state of his health.

On examination, I found a very tight stricture at the bulb, through which a small catheter was with some difficulty introduced into the bladder. Several instruments of larger size were afterwards passed at intervals of a few days, but without producing the slightest benefit, in regard to the frequency of his calls to make water, or the size of stream in which it was discharged. I then tried the retention of a catheter in the bladder, which proved quite intolerable beyond a few hours; and being thus fully satisfied that dilatation in any form would be inadequate to afford relief, proposed division of the stricture by external incision.

The patient followed me to Edinburgh for this

purpose, and had the operation performed, with the immediate effect of affording complete relief. He was not only at once freed from any trace of local uneasiness, but ceased to suffer from the feverish attacks, and quickly regained the aspect, together with the feeling, of perfect health.

Case X.

A gentleman, twenty-six years of age, from the north of Scotland, applied to me in the early part of last spring for relief from an imperfection of his urinary organs, which occasioned him the greatest annoyance. It appeared that, when about eight years old, he had been operated upon for congenital phymosis, and that the prepuce had then been found adherent to the glans, so that only a very small part of its apex could be uncovered. Continuing to suffer from pain and extreme difficulty in making water, with such contraction of the orifice of the urethra as precluded the introduction of the smallest instrument, he had undergone more lately a second operation with the view of restoring the canal, or rather establishing a new one, in place of the natural channel which appeared to be obliterated. For this

purpose a narrow sharp-pointed knife was thrust between one and two inches along its course, backwards from the seat of the external orifice, so as to admit the entrance of a small bougie to this extent. All attempts to pass instruments of any texture or size beyond the *cul-de-sac* thus formed had proved ineffectual. The patient experienced the greatest difficulty in voiding his urine, and being able to accomplish this only by drops, required so much time for the purpose, that he felt ashamed to seek relief except when secluded from observation or remark. From the inconvenience thus sustained, operating upon a sensitive disposition, so much distress and despondency resulted, as nearly to unfit him for the active business of life.

Having administered chloroform to prevent the excessive irritability of the patient from interfering with the process of examination, I succeeded with some difficulty in guiding the small gold probe used for insertion into the *puncta lacrymalia*, through the contracted part of the canal, which extended from the bottom of the *cul-de-sac* above mentioned. The probe, when grasped by the stricture, could be felt distinctly surrounded by a ring of condensed texture; and regarding this as the source of annoyance, I proposed to divide it by external incision. Having ob-

tained the patient's consent to this proceeding, I prepared for it by passing a succession of small wires, gradually increased in size until one adequate to carry a groove could be introduced. I then divided the stricture, and introduced a silver catheter into the bladder, to ascertain that there was no further obstruction, but did not allow it to remain, as the vicinity of the wound to the orifice of the urethra seemed to prevent any risk of extravasation—the patient at once obtained relief, and enjoys the comfort of making water like his neighbours, so much that he declares life seems to him a new sort of existence. He was also completely freed from the peculiar sensibility which had so much impeded his treatment, and indeed rendered the administration of chloroform an essential prelude to each step for exploration, and operation. From the day on which the stricture was divided, he never made the slightest objection to the passing of instruments, and can now introduce them himself without difficulty or inconvenience.

In connection with this case it may be remarked, that congenital adhesion of the prepuce to the glans, may always be easily remedied if noticed during infancy or early childhood, by using a sufficient degree of force to effect separation of the respective sur-

faces. If interference be delayed until the later period, it is sometimes necessary to break through the anterior edge of the union by means of a probe, or cut it with the point of a knife, after which separation may be readily effected. Where there is the farther complication of phymosis, it must of course be remedied in the first instance, to afford the freedom of access requisite for exposing the glans.

Case XI.

A. S., aged twenty-eight, a bookbinder, was admitted into the Royal Infirmary on the 29th of July last, for stricture of the urethra at the bulb, complicated by a false passage, as stated in the recommendation of a medical man which he brought with him. The complaint was attributed to a gonorrhœa contracted ten years ago, and had been very troublesome for the last five years, impeding micturition so much that the urine frequently could not be voided except by drops, and occasionally causing complete retention. It was through ineffectual attempts to afford relief during these attacks, by introducing instruments, that the false passage had been established.

Having allowed the patient to remain quiet for a

few days, I succeeded, on the 7th of August, in passing a bougie through the stricture; and thinking it likely that the treatment by dilatation would prove unsatisfactory, performed division, on the 11th. The urine escaped partially by the wound for a few days, and the patient, who had been quite well for a fortnight, was dismissed on the 2d of September, without any trace of the disease or its remedy.

Of all the cases in which I have divided the stricture, only one has been followed by any unpleasant result. On that occasion, the patient suffered from a formidable attack of erysipelas, which, commencing in the perineum, gradually extended over the whole surface of the body, accompanied by constitutional disturbance so violent, as to prove all but fatal, and productive of emaciation, with prostration of strength, to an extreme degree. During this illness, the wound, instead of healing as usual, remained open for several weeks—just as when first inflicted; and it retained its conical form after the process of granulating contraction began, so that when cicatrisation was at length completed, the urethra had a very thin covering at the seat of the aperture, which therefore was apt to open from time to time, and discharge a little urine. It may be added that the

combination of circumstances which gave rise to this untoward occurrence, was so complicated and unusual that it can hardly by any possiblity ever happen again.

I could add more cases, and would do so, unless those already related appeared sufficient to satisfy any unprejudiced mind, while no amount of evidence could alter the sentiments of those determined to go on in the old way. But it may now be proper, although at the expense of some repetition, to give a connected account of the operation, and its after-treatment.

If the patient has a great dread of pain, and wishes to escape from the slight degree of it which attends the requisite incision, he should be placed under the influence of chloroform—not partially, so as merely to suspend his consciousness or impede his recollection of suffering—but completely, so as to prevent any restlessness or unruly struggle, which would tend very seriously to increase the difficulty of the procedure. He should then be brought to the edge of his bed, and have his limbs supported by two assistants, one of them standing on each side. A grooved director, slightly curved, and small enough to pass readily through the stricture, is next introduced, and confided to one of the assistants. The surgeon, sitting or kneeling on one knee, now makes an incision in the middle line of the perineum, or penis, wher-

ever the stricture is seated. It should be about an inch or inch-and-half in length, and extend through the integuments together with the subjacent textures exterior to the urethra. The operator then, taking the handle of the director in his left, and the knife, which should be a small straight bistoury, in his right hand, feels, with his forefinger guarding the blade, for the director, and pushes the point into the groove behind, or on the bladder side of the stricture,—runs the knife forwards so as to divide the whole of the thickened texture at the contracted part of the canal, and withdraws the director. Finally, a No. 7 or 8 silver catheter is introduced into the bladder, and retained by a suitable arrangement of tapes, with a plug to prevent trouble from the discharge of urine.

The process having been thus completed—which it may be in less time than is required for reading its description—the patient has merely to remain quietly in bed for forty-eight hours, when the catheter should be withdrawn and all restraint removed. The urine sometimes maintains its proper course from the first, but more frequently passes in part through the wound for some hours, or it may be a few days. No attention or interference is required on this account, but at the end of eight or ten days

a moderate-sized bougie should be passed, and repeated once a week or fortnight for two months. In most cases, the cure may then be deemed complete and lasting. But if the tendency to contraction should have been extreme, or if the patient's way of life should be such as to favour the reproduction of stricture, it will be a prudent precaution to have the bougie passed four or five times in the course of a year, in order to avoid all risk of future trouble.

Such being the mode of treatment which I wish to recommend, it may next be inquired, how far the other methods in use, for the remedy of stricture, are adequate to overcome the difficulties presented in practice.

The means at present employed for this purpose are—1. Dilatation by bougies; 2. Dilatation by catheters retained in the bladder; 3. The escharotic effect of caustic; 4. Internal incision by sheathed blades passed through the stricture; and, 5. Incision of the perineum in search of the urethra deemed impermeable. Of these, the one first-mentioned is justly regarded as the safest and best.

Bougies were originally employed to convey remedial applications considered suitable for the removal of warty growths from the urethra, erroneously supposed to be the cause of contraction in the canal.

Afterwards, when more correct information was obtained in regard to the true nature of the disease, the good effect of their introduction was ascribed to the mere force of mechanical dilatation. So late as thirty years ago, Dr James Arnott invented his ingenious apparatus for dilating the contracted urethra by the force of fluid urged in by a syringe and pressing upon the flexible sides of a membranous tube introduced through the canal; and about the same time, I recollect of seeing tried on *one* occasion a steel bougie divided longitudinally into two portions, which admitted of separation from each other, by a sliding movement at the handle, so as to rend asunder the edges of the stricture.

It is now universally admitted that the bougie acts beneficially by exciting a degree of irritation sufficient to induce absorption of the thickened texture which occasions the contraction and induration concerned in the formation of stricture. To produce this effect, the instrument should be employed with the utmost possible gentleness—should not be allowed to remain in the urethra more than one or two seconds—and should not be introduced again until the expiry of from two to four days, or rather until any uneasiness excited by it has completely subsided. The best instruments for the purpose are made hollow,

of Berlin silver, which possesses the requisite degree of rigidity, takes a fine polish, and is not liable to rust. They were first made here at my desire many years ago, and have been extensively used, with great satisfaction to all who have employed them, being much preferable, on account of their lightness, to the heavy plated steel bougies. The flexible or elastic gum instruments are safer in unskilful hands than those of the rigid kind, but can never be introduced with the same delicacy, or guided with so much precision, as the latter, which should therefore be preferred by all practitioners who are able to use them.

When the existence of a stricture is suspected, the urethra should be examined by introducing a moderate-sized bougie, such as No. 8. If one larger than this be employed, it may encounter resistance at the narrowest part of the channel, though there is no real contraction, while one of smaller size may not detect a degree of stricture requiring dilatation. But when a bougie of the size above-mentioned is obstructed, there need be no doubt as to the existence of stricture, and its degree of tightness should next be ascertained by trying a succession of smaller instruments until one is passed. It is unnecessary to say anything as to the preposterous plan of taking

casts of the stricture by pressing upon it the extremity of a soft plaster bougie, since any one at all conversant with the subject must be satisfied that such a procedure can produce no result better than deception either of the practitioner or the patient. The only satisfactory measure of a stricture is the instrument which it allows to pass; and this being ascertained, the dilatation may proceed from that point, according to the principle which has been explained. But however often the introduction of instruments may be required for this purpose, the greatest care should be taken to avoid all attempts to gain an advance by force in opposition to unfavourable circumstances. If the patient is heated or out of order—if he has exceeded in the use of stimulants, or purposes to do so—if he has performed a journey or is about to undertake one—if the urine is thick or loaded with mucus—if the bowels are constipated or unduly relaxed—if the urethra is inclined to bleed or appears more than usually irritable—if there is pain of the testicles or perineum—and, finally, if the surgeon is in haste or out of humour, the operation ought to be delayed.

When carefully conducted, with due attention to all the precautions which have been mentioned, the process of dilatation frequently affords the most satis-

factory results; but, except in cases which yield readily, it is still exposed to the following serious objections. In the first place, it is attended with the risk of many untoward occurrences which not only impede recovery but complicate the patient's sufferings, and even endanger his life; secondly, it cannot be depended upon as a source of lasting relief; and, thirdly, it is altogether inadequate to remedy that obstinate form of the disease in which the stricture has a resilient disposition to contract, accompanied with a great degree of irritability.

All persons labouring under stricture are more or less liable to attacks of fever resembling ague, which, though frequently appearing to occur spontaneously, are very much under the influence of external circumstances, especially such as relate to the urinary organs. Of these, the introduction of a bougie is one of the most certain in producing the effect; and although in general the rigor so induced is soon succeeded by the hot and sweating stages, which pass away without any trace beyond a degree of exhaustion proportioned to their severity and duration, yet, if the patient should happen to be in an excitable state, or suffer from any other source of disturbance, such as exposure to cold, the paroxysm may lead to consequences of a much more serious nature. Herpetic

eruptions on the lips and face, painful swelling of the testicles, and abscess of the perineum, are the most common of the local derangements that result from the constitutional disturbance so induced, which may, however, be so violent as to prove fatal, either directly in the first instance, or more slowly by giving rise to suppuration in the large joints.

In illustration of what has just been stated, the following cases may be mentioned :—A gentleman under treatment of stricture, had the bougie passed on a cold winter day. He was advised to go straight home, but happening in his way to meet a lady to whom he was under engagement of marriage, accompanied her to church. In the evening he had a rigor, and next day a swelling of the perineum. In another instance, a gentleman, after having a bougie passed for stricture, walked home the distance of between two and three miles during a fall of snow. He had an attack of fever, terminating in diffused deep-seated inflammation of the leg, with sloughing of the fibrous textures, and when apparently recovering from this, began to suffer from suppuration of the hip joint, which proved fatal. A third patient, under treatment for stricture of old standing, went to the country in cold winter weather. He had an attack of fever, followed by local derangement, for which I was asked to see him

at the end of three weeks. He then appeared to be at the point of death, there being a large abscess of the perineum, with extravasation of urine, and all the signs of approaching dissolution, A free incision, and an abundant supply of wine, enabled him to rally from this alarming state, but suppuration of the ankle joint succeeded; and when the discharge from this source had nearly ceased, a formation of matter taking place in the hip joint put an end to his sufferings. The fatal result ensued more quickly on another occasion, when a late distinguished surgeon passed a bougie through the stricture of an irritable patient, or attempted to do so: violent fever followed, and terminated in death at the end of forty-eight hours.

While the bad effects of the bougie may often be ascribed to imprudence on the part of the patient, it must be admitted that want of skill or care on the part of the surgeon, is a much more fruitful source of evil. Whenever bleeding attends the operation, it is certain that the lining membrane of the urethra must have been grazed or lacerated, and not improbable that a false passage has been formed through the membrane. But the mischief thus inflicted must increase the risk of bad effects at the time, and also render the future progress of the case more embarrassing. Indeed,

when false passages are fairly established, it is impossible, through any degree of caution or experience, to avoid them with certainty. Such being the dangers which attend the use of bougies, the risk of the whole process of dilatation may be estimated from the number of instruments, and the frequency of their introduction, required to complete it.

The second objection which may be alleged against the treatment by bougies is, that the relief afforded by it seldom proves permanent. Sir B. Brodie says,* "In a few cases of incipient stricture, and in some of those in which a stricture is merely spasmodic, after a bougie has been used for a certain length of time, the use of it may be dispensed with, and there will be no recurrence of the disease. But these cases are rare exceptions to the general rule, which is, that there is danger of a relapse, and that a patient, who is desirous of continuing well, must submit to the occasional use of the bougie ever afterwards." My own experience would not lead to a statement quite so discouraging; and the difference may perhaps be attributed to the dilatation practised in Edinburgh being more ample than that which appears to be thought sufficient in London, if it be fair to judge

* On the Urinary Organs; 1849; p. 71.

from the size of bougies committed to patients for their use after recovery. It is believed here, that unless the urethra be fully dilated to its natural capacity at the seat of contraction, the stricture is sure to return very speedily, and to this extent the process accordingly is always carried. But although the risk of relapse may thus be lessened, it certainly cannot be altogether prevented; and the disease too frequently maintains its hold during the remainder of the patient's life—becoming more troublesome, and less manageable, as age advances, so as at length to destroy all comfort by day or night—exhaust the patient's strength—and finally put a period to his existence, after a long struggle between contraction and dilatation.

The third objection to this mode of treatment which I have mentioned is, that the disease occasionally does not admit of any beneficial effect from its employment. In these cases the stricture has such an elastic or resilient disposition to contract, as to prevent any advantage being derived from the introduction of bougies, while its irritability is so extreme, as to render the most gentle use of instruments sufficient to produce the most violent rigors, with their consequences in a proportional degree of severity, so that the surgeon must either abandon the

attempt to effect dilatation, or persevere in his efforts, to the destruction of the patient. This obstinate condition is sometimes original, existing from the commencement of the disease, but more frequently is developed in its progress, becoming more and more manifest as years advance, and ultimately causing more deaths than is suspected by the public, or is even generally known to the profession.

It is in such obstinate cases that the treatment by retention of catheters in the bladder, with progressive increase of their size, has been thought proper. But even when the patient can bear this continued pressure of the instrument, which is not by any means always the case, little advantage is gained; since the stricture seems to contract with a degree of rapidity proportioned to that of its dilatation, and to have its resilient disposition rather increased than lessened by the forced expansion to which it has been subjected. The catheter, therefore, is no sooner withdrawn than the symptoms of contraction return, and often prove more troublesome than they were previous to its introduction.

With regard to the use of caustic for the cure of stricture, it must be obvious that all which has been said as to the injurious effects and dangerous consequences of introducing the most simple dilating

instruments into the urethra, will apply with tenfold force to the employment of bougies "armed" with escharotic substances, or any other apparatus constructed for the conveyance of such irritating agents. But independently of this objection, I do not hesitate to express my persuasion, that a real organic stricture cannot be removed by caustic; since, even admitting that the agent could be accurately applied, the destructive effect of the nitrate of silver is so limited, as to be quite inadequate for the purpose, while that of potass is so diffused, that in the event of destroying the stricture, it must cause a worse one through the unavoidable loss of substance attending its operation, and the consequent contraction in healing. On the whole, it seems more reasonable to conclude, that in the cases of alleged cure by caustic, there was no real stricture in existence, than to suppose that so improbable, or rather impossible, an achievement had been accomplished.

The symptoms of stricture are simulated by those proceeding from many other derangements of the urinary organs, and are still more frequently the offspring of imagination when the mind is weak or morbidly sensitive of local impressions. This condition may arise at any time of life, but is most common at the age which succeeds a youth of freedom or excess.

Many of the uncomfortable sensations then experienced are apt to be referred to the urethra or the neighbouring organs; and if the patient is sufficiently unfortunate to place himself under the charge of an ignorant or unprincipled practitioner, consequences no less serious to his health than to his purse may ensue. It is then that diseases of the prostate, remediable by the introduction of bougies smeared with belladonna, are detected, and afford a pretext for treatment prolonged during months or years. And it is then, too, that chiefly abound strictures "at the neck of the bladder," "spasmodic strictures," and strictures curable by caustic. Sir B. Brodie, who from his early connection with Sir Everard Home, the great advocate of caustic, must be supposed well acquainted with the effects of this treatment, and cannot be regarded as a hostile witness against it, distinctly limits the field of its beneficial application to the relief of spasm, and admits the danger attending it, though employed merely for this purpose; while, for the confirmed organic stricture, which constitutes the subject of the present inquiry, he declares that "the caustic is absolutely inadequate to the cure."

The next method to be considered, is internal incision of the stricture by means of a sheathed blade

introduced through the narrow part of the passage, and protruded in the act of withdrawal. Less mischief than might be expected from this proceeding is said to have been experienced from its employment. But, while unnecessary and useless in those cases which admit of dilatation by the bougie, such an operation is not sufficient for counteracting the contractile tendency when it exists in a more energetic form. (See Case I.) During my residence in London, Dr Scott, examining physician of the East India Company, asked my opinion as to the case of an officer on sick leave. His complaint was a stricture at the bulb, so tight, that it was with some difficulty I succeeded in passing an instrument of the smallest size through it, and attended with symptoms denoting an extreme degree of irritation. The patient stated that he had suffered from the disease before going abroad, and had been under the care of a surgeon in London, who treated him by internal incision, with the assurance that he was permanently relieved from all future trouble; but that, nevertheless, having set out for India immediately afterwards, he had not completed half the distance to his destination, before the symptoms returned with redoubled severity. In these circumstances, the case seemed a proper subject for external incision; and if this had been done, I enter-

tain no doubt that the patient would have regained his health in the course of a few days. He proposed to place himself under my care for this purpose, but from leaving London soon afterwards, I saw no more of him, and have since heard that he resigned his commission, in despair of being ever able to serve with comfort.

The last, and certainly most objectionable of all the methods which have been mentioned above as in use for the treatment of stricture, is cutting into the perineum in search of the obstructed canal, without any further guide than the point of a catheter, introduced not through, but merely down to, the contracted part. Sir B. Brodie says, very truly, "even under the most favourable circumstances, it cannot be otherwise than doubtful, whether the stricture be properly divided, that is, whether the incision has passed through the narrow canal in the centre, or through the solid substances on each side. I suppose that no surgeon would recommend such an operation, except as a last resort, when no instrument could be made to pass through the stricture by other means." It might be added, that in addition to the danger thus incurred, of establishing an imperfect canal, constantly disposed to contract, and inconvenient from its tortuous direction, there is also

the immediate hazard of failure in accomplishing the introduction of a catheter into the bladder, which would expose the patient to nearly certain death from extravasation of urine.

No two operations can be more different in the principles upon which they are founded—the security of their execution—and the result of their performance,—than the one thus so justly reprobated, and that which, in the preceding pages, it has been my endeavour to recommend. The ground of the former is belief in the impermeability of the stricture, while the latter essentially requires the passage of an instrument through it. The former is protracted, uncertain, dangerous, and unsatisfactory; while the latter is done at once, perfectly safe, and completely effectual. It must have been from confounding two procedures so entirely different, or more probably from acquaintance with only one of them, that an hospital surgeon in London, when consulted as to the expediency of submitting to my treatment, coupled his sanction with the advice, that the patient should in the first place make his will.

The operation by external incision hitherto employed, has been resorted to as the refuge of awkwardness or failure in the introduction of instruments, there being no truly *impermeable* stricture, while the

one now advocated can be accomplished only by steps requiring the nicest manipulation. Passing rigid instruments through a tight stricture, was said by Mr Liston to be "the most difficult in the whole range of surgical operations;" cutting into the groove even of a large staff, is considered by many the most embarrassing part of lithotomy; and conveying a catheter into the bladder through a urethra having a slit in its side, would perplex an operator not well acquainted with the course of the canal. Such being the nature of the operation, it should hardly be undertaken by any one who is not able to overcome the ordinary difficulties which are presented in the surgical treatment of the urethra.

From what has been said in the foregoing pages, I trust it will appear established,—

1. That division of a stricture by external incision, is sufficient for the complete remedy of the disease in its most inveterate and obstinate form.

2. That in cases of less obstinacy, but still requiring the frequent use of bougies, division is preferable to dilatation, as affording relief more speedily, permanently, and safely.

FISTULA IN PERINEO.

FISTULA *in Perineo* is so frequently associated with stricture of the urethra, that a few remarks regarding it may not be out of place here, especially as there are some points in its history and treatment, respecting which the opinions usually entertained seem to admit of very serious question.

Sir B. Brodie says,—"The urethra, constantly teased by the pressure of the urine against it, ulcerates behind the stricture." "A *fistula in ano* is formed in the same manner, by ulceration of the rectum allowing the escape of a minute quantity of feculent matter into the neighbouring textures."* The opinion expressed in this extract from a source entitled to the greatest respect, though generally entertained, has long seemed to me entirely inconsistent with

* On the Urinary Organs; 1849; p. 17.

well-known facts of daily occurrence in the history of abscesses at the anus and in the perineum.

If the first step of this process in either case were ulceration through the lining membrane of the respective excretory canal, it might be expected that the entrance of urine or feculent matter into the cellular texture, would immediately occasion great swelling, intense pain, and violent constitutional disturbance, frequently, if not always, fatal to the patient; and that in the event of his surviving, so as to afford time for the establishment of an abscess, the cavity, when opened, would contain a mixture of urine or intestinal matters with putrid fluids and fœtid gas. But every surgeon who observes, without prejudice, what passes under his notice, must be fully aware that the abscesses which give rise to fistula *in ano* and *perineo*, usually originate in firm swellings, becoming, sooner or later, soft and fluctuating; and that, when opened early, they always discharge merely purulent contents, without admixture of matters proceeding from the neighbouring canals. Without further argument, I would appeal to the facts just stated, and am quite willing that this question should be decided according to their accuracy, which every surgeon has it in his power to verify.

It is quite true that fistula *in ano* and *in perineo* are formed in the same way, the process being the same in both, but entirely different from that which Sir B. Brodie has described. The first step is the formation of an abscess, preceded by symptoms more or less acute, but generally so slight as to escape the patient's attention, which is usually not excited until the swelling attracts his notice. The matter is seated close to the external side of the mucous membrane, whether the rectum or urethra be concerned, and has no communication whatever with the interior of the canal. If not evacuated artificially, it sooner or later finds issue through progressive absorption of the surrounding textures. In the perineum, a direct outlet being opposed by the fascia which lies under the integuments of that part, the discharge usually take place internally into the urethra; and if externally, in the hip or scrotum, beyond the limits of resistance thence offered. In the former case, the patient is exposed to imminent danger from the urine being urged into the cavity of the abscess with such force, by the contractile power of the bladder—especially when a stricture beyond the seat of communication obstructs the proper channel—as to break through the circumscribing wall of lymph, and diffuse itself with deadly effect through the neighbouring

textures. In the latter case, and also when the abscess has been opened by incision, there is no such risk. It is true that the thin denuded mucous membrane, though in the first instance remaining entire, is generally perforated by ulcerative absorption before long, indeed, seldom more than a few days after evacuation of the abscess. But then the parietes of the cavity are impervious to the urine which flows through, without obstruction in front, and without force from behind greater than is requisite for its discharge. Abscess at the anus, having no fascia to impede its course to the external surface, almost invariably discharges its contents through an opening in the integuments of the hip. If at this period the cavity be carefully examined by introducing a finger into the rectum and a probe into the sinus of the abscess, it may be ascertained, if any doubt should remain, that the mucous lining is perfectly entire; although, as in the case of the urethra, perforation is almost sure to ensue subsequently, from ulceration of the thin detached membrane which has formed the inner wall of the abscess. The fistula *in ano*, however, does not become complete, or communicate with the mucous canal, so soon as that *in perineo*, often requiring several weeks for the accomplishment of this, especially when the abscess has been opened by a free incision.

Fistula *in perineo*, unless when complicated by some unusual cause of obstinacy, requires for its remedy nothing more than removal of the stricture connected with it, which, by causing irritation, gave rise to the abscess, and, after communication between the old and new canal, has directed the urine through the latter passage. When the stricture is remedied, and sometimes before it is entirely removed, the swelling and induration of the perineum disappear, the fistulous opening closes, and the urine resumes its natural course.

Case XII.

W. W., aged forty-eight, late boatswain of H.M.S. ————, was admitted into University College hospital, on the 8th April 1848, under my care, recommended by the first Lord of the Admiralty, Lord Auckland, who felt interested in him on account of the excellent character which he had borne in the service. His complaint was fistula *in perineo*, with stricture of the urethra,—the former ailment being of three, and the latter of thirteen, years' standing. Although considerably relieved in the earlier period of his sufferings by the introduction of bougies, he stated

that, notwithstanding prolonged and repeated attempts by various surgeons afloat and on shore, no instrument had been passed into the bladder for the last nine years. More than half of his urine escaped by the fistulous opening, and what issued by the urethra did so in drops merely. In these circumstances, greatly to his regret, he had finally been discharged as unfit for duty. The following extract from the hospital record will show the steps of his progress :—

"*April* 8.—Mr Syme introduced No. 1, metallic bougie, into the bladder. There are two strictures, one about two inches and a-half from the orifice, and the other, which is tighter, at the bulb.

"9.—No pain or irritation of urethra.

"10.—No. 2 bougie passed the first stricture after No. 1 had entered the bladder and been withdrawn.

"12.—Nos. 1 and 2 passed easily into the bladder. Patient much easier than formerly, being up at night twice or thrice, instead of ten or twelve times.

"15.—No. 3 introduced.

"19.—Has a cough and sore throat, with fever.

"24.—Better, but cough remains. No. 5 passed the first stricture ; No. 4 entered the bladder.

"28.—Has an attack of erysipelas, beginning at the nose.

"*May* 15.—Mr Syme has passed bougies up to No. 7; very little water comes by the perineum.

"29.—No. 10 bougie has been passed. *All* the urine comes by the penis in a good stream, and sometimes nearly a pint at a time. He is anxious to go home, and is dismissed *cured*."

He left the hospital in the hope of being reinstated in the service; and the last time I saw him was with this view, addressing a petition to Lord Auckland. It thus appears that, notwithstanding considerable delay from repeated attacks of illness altogether accidental, and nowise connected with the treatment of the case, recovery was completed, simply through introduction of the bougie, in little more than six weeks.

Case XIII.

A. W., aged twenty-four, from Glasgow, late of the —— regiment of foot, was admitted into the Royal Infirmary on the 28th of August last, for stricture of the urethra, with a fistula in perineo, through which fully one half of his urine was discharged. He stated, that soon after entering the army, about five years ago, when stationed at Cork, he had contracted a gonorrhea, and sailing with it to Gibraltar, suffered

there from the symptoms of stricture. After having been three months in hospital on this account, with imperfect relief, he had resumed duty for four months, and then sailed for the West Indies. On the voyage a swelling formed in the perineum, and opened spontaneously, discharging in the first instance matter alone, but after a few days urine also. On arriving at the island of his destination, he was four months in hospital, being treated with ointments and injections, but without ever having an instrument passed through the stricture. He was then sent home, and, after remaining a month at Chatham, where some unsuccessful attempts were made to pass bougies, appeared before a medical board, and was dismissed as unfit for service, with a pension for twelve months.

On the day of his admission, I passed a bougie without any difficulty into the bladder, and carried on the dilatation without interruption, so that before the end of three weeks, the full-sized instrument was passed, and the urine ceased entirely to escape by the fistulous opening. He was dismissed cured on the 20th September.

But the stricture associated with fistula *in perineo*, like that existing independently of any such complication, may possess the contractile disposition so

strongly as to resist dilatation, and require the perineal incision.

Case XIV.

W. R., aged forty-five, was admitted into the Royal Infirmary on the 15th of November 1847, on account of fistula *in perineo*, with stricture of the urethra, from which he had suffered more than twenty years, in consequence of an injury sustained from a fall of earth upon him while working in a quarry. The immediate effect had been inability to pass his water, which rendered it necessary to request surgical assistance. He was then relieved by the catheter, and had the instrument introduced occasionally during the three succeeding months. About a year afterwards, an abscess formed in the perineum, and laid the foundation of a fistulous opening through which the greater part of his water escaped. Two years after the accident, he underwent an operation in Guy's Hospital (London) for the remedy of the fistula, by cutting upon the point of a catheter at the seat of obstruction. This proceeding was so far beneficial, that it closed the opening, but did not remove the stricture, which continued to occasion

more or less trouble, until at length the fistula re-opened, when all the symptoms of his complaint became greatly aggravated, and induced him to apply in various quarters for relief.

Upon examination, it appeared that there was a stricture at the bulb, so tight as to admit only an instrument of the smallest size, and that there was an opening in the perineum through which the whole of his water passed, without the power of retention, so that his clothes were saturated with urine. The treatment by dilatation was commenced, and carried on several stages, but without producing any relief of the symptoms, and with increasing difficulty, instead of facility, in the introduction of bougies. It therefore seemed expedient to divide the contracted part of the canal, which was accordingly done on the 13th of January, the incision being made on a grooved director, and a full-sized silver catheter secured in the passage. On the 15th, the catheter was withdrawn, and the patient immediately regained the power of natural evacuation, together with that of retention, so as at once to be completely relieved from all his complaints. A bougie was occasionally introduced afterwards, without the slightest perception of tightness or obstruction, and the patient left the hospital on the 7th of February.

There is another condition of the disease still more embarrassing under the ordinary means of treatment. In this case, the fistula proves obstinate and admits of no improvement, although not accompanied by a stricture, either from there not having been one in the first instance, or from its having been remedied without the effect of closing the preternatural canal. The state of the patient's general health, or disease in some other part of the body, may on some occasions account for this obstinacy; but when it is not referable to any such source, I am persuaded that its cause must be attributed to the situation of the orifice through which the contents of the abscess were discharged, whether this has taken place naturally or artificially. In the former case, a direct outlet is prevented by the fascia of the perineum; and in the latter, there is a baneful habit of cutting at the left side of the perineum as if for lithotomy, instead of the raphe or middle line, where incisions should always be made for the evacuation of matter lying under the fascia. But as in cases otherwise free from complication the obstinacy in question is never met with when the abscess has been opened by a free incision in the middle line, it may be reasonably expected that the formation of such a free and dependent drain should still suffice for the patient's

relief, when there does not appear to be any obstacle in the way of his recovery, except the tortuous direction of the fistulous canal.

Case XV.

E. M., aged forty-one, a plasterer, was admitted into the Royal Infirmary on the 13th of November last, on account of urinary irritation, and inability to pass his urine, through the natural channel. He stated, that about nineteen years ago he had fallen across a beam of wood, and bruised his perineum, which injury was accompanied by a slight discharge of blood from the urethra, and, for a few days, by retention of urine, requiring the catheter to be introduced. A small induration gradually formed in the perineum, behind the scrotum, and about seven years ago he had again retention for several days. Three years since he suffered from a similar attack, and subsequently has experienced more or less difficulty and pain in passing urine, with enlargement and increased uneasiness of the perineal swelling. More recently he was admitted into the hospital under the care of the late senior ordinary surgeon, for relief from stricture of the ure-

thra. Bougies were passed regularly, and under this treatment the hardness in the perineum nearly disappeared. After a residence of five weeks, he was dismissed almost quite well. Soon after leaving the hospital, he was exposed to cold and wet, and his complaints returned with increased severity. The swelling of the perineum and scrotum enlarged rapidly. An abscess formed, and a considerable quantity of matter was evacuated by incision; and in a few days the urine began to escape through the opening thus made.

At the period of his final admission (13th November, 1848), there was great induration of the perineum and scrotum, with two fistulous openings about an inch from each other, through one of which the chief part of his urine escaped. The patient, from long suffering and disturbance of sleep, which he was not permitted to enjoy for more than a few minutes at a time, was extremely irritable and desponding, and derived no benefit from the introduction of instruments through the stricture, which was situated about five inches from the orifice of the urethra.

On the 20th, I introduced a grooved staff into the urethra, and cut upon it in the perineum through the contracted part, making an incision about two inches in length. A full-sized catheter was then introduced, and retained in the bladder. The cathe-

ter was withdrawn at the end of forty-eight hours, after which the patient did not make a drop of water through the wound, and was at once completely relieved from all his previous sufferings. He quickly regained his sleep, appetite, and strength, and was dismissed cured on the 2nd of December.

THE END.

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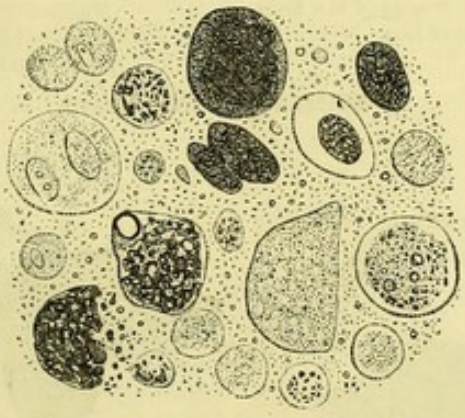

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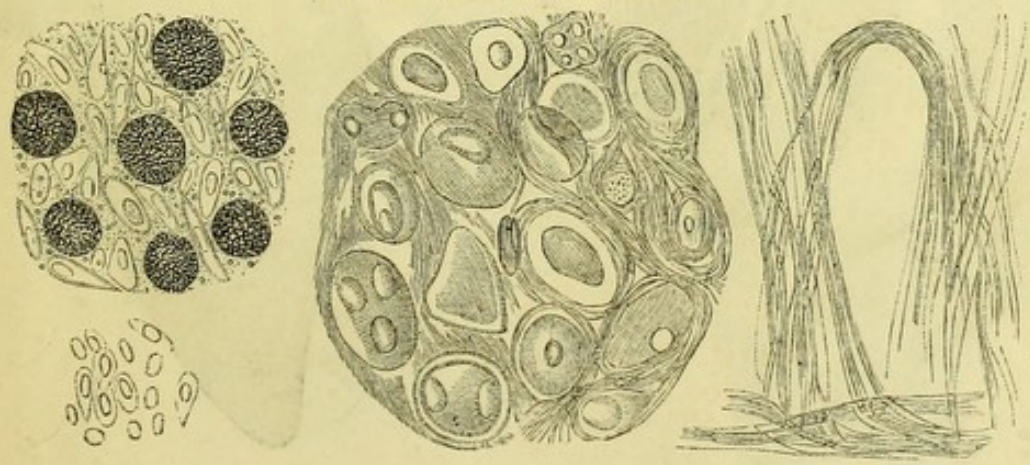

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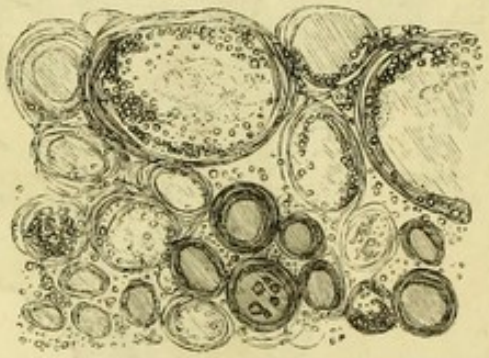

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