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Thesis

on

Structure of the Urethra

by

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Among the minor diseases that afflict the Human Race, Stricture certainly claims a larger than ordinary share of Attention.

Although it is not one of those affections that obviously tend to shorten life yet certainly it renders existence so miserable and exhausts the mental and bodily powers to so great a degree that when more severe disease takes hold of the system it finds it an easy prey and quickly exhausts the powers of life. When disease in spite of all care exerted for its cure resists and continues

its progress, then there is reason for deep regret although at the same time it may be softened by the feeling that all the means to prevent its progress have been timorously employed: But, when carelessness on the patients part or culpable neglect on that of the practitioner may lead to the most disastrous results, it should be the endeavour of every medical man by timely care to prevent reproaches being levelled at him: reproaches of which he too keenly feels the justice while he cannot avert the shame. Now, stricture is a disease that if carefully treated at its commencement will probably yield to treatment and most likely trouble the patient no more. Yet there are many, very many, cases of stricture constantly occurring and as the cause itself

is most frequently of a delicate nature, many patients have confirmed stricture before they are aware of it except by the difficult micturition with which they are affected: these cases are numerous among those who have been in the habit of treating themselves for Gonorrhoea and consequently they form a class of cases that will constantly occur, most probably in all time to come: still these are not the worst. For as stricture is so common and as medical men are not everywhere conscientious and careful and indeed skilful, a large proportion of the cases that do come under medical treatment fare even worse than those managed by the patients themselves and consequently we are every now and then meeting with

strictures whose treatment casts a stigma on medical Practice while their existence renders miserable and unprofitable lives that might otherwise have been spent with comfort to the patients themselves and with the highest benefit to their fellow creatures.

It does seem strange that even among Practitioners who have every desire to benefit their patients the treatment of stricture should still remain a difficult matter and a subject for controversy and cavil: for as the disease has been and is so ripe one would think that doubt in regard to the proper mode of curing it would have long ago ceased. Probably from the spirit of opposition so common among men in general and more particularly from the strength of the "odium Medicum" this difficulty

about so common an affection may long remain. For the present generation it is gratifying to learn that one method of cure certainly does exist applicable even to the most inveterate cases and in skilful hands likely to render pleasant the remainder of many lives hitherto passed in discomfort or wretchedness.

In the following Essay I propose first of all to consider the nature of Stricture and its principal varieties, and afterwards to consider the various modes of treatment hitherto employed.

Stricture of the Urethra means such a diminution of the Urethral Canal in regard to width, as may impede micturition, or render it altogether impossible for some space of time: thus rendering the employment of instruments for the removal of the urine absolutely necessary —. This impeded passage of the urine is always accompanied with some degree of uneasiness and in the more confirmed cases by a considerable amount of pain: while in the worst cases there is often insupportable annoyance endured from an inability either to pass or to retain the urine.

Stricture is commonly divided by systematic writers on Surgery into — Inflammatory, Spasmodic and Permanent and of these three varieties I shall now

consider the intimate nature.

When Acute Inflammation seizes either some of the textures belonging to the urethra or else some parts through which it passes, then such a degree of swelling is produced as sometimes prevents altogether the passage of urine for some time. In stating that the inflammation may seize some texture belonging to the urethra it must be understood that the urethra like other mucous canals consists of the Basement membrane with its protecting epithelium supported by an intricate network of capillaries, absorbents & nerves: these constituting the proper membrane; and of some areolar tissue lying external to this. The inflammatory exudation may take place in either or both of these parts. — Severe Gonorrhoea

may cause inflammatory thickening of the urethra along a considerable space of the tube and it will depend on the extent of the inflamed portion as well as on the amount of exudation how long the stricture may remain. If, on the other hand, inflammation takes place in the substance of the Prostate gland or in the cellular tissue of the Perineum or in the close vicinity of the Rectum, whether the inflammation does or does not proceed to suppuration the swelling may produce such pressure on the urethral tube as to prevent the passage of urine. Now, whether the tube be obstructed more immediately by its lining membrane or by the swelling external to it, such obstruction the result of acute inflammation has received the name of "Inflammatory

Stricture". Although Gonorrhoea has been mentioned as the most frequent cause of the internal swelling, yet it is more especially from irritations during its continuance that the obstructive affection takes origin. For example irregular living, wet feet, hard drinking, continued exposure and not infrequently the ineffectual but attempted escharotic treatment are the likely means to produce the internal swelling. Sometimes although rarely the inflammation has been even of sufficient severity to cause the exudation of lymph on the free surface of the membrane, for on dissection a thread of lymph has been found stretching across the canal: this degree of inflammation is unusual on mucous membranes and

occurs only in very intense inflammatory cases. There is no cause more likely to produce the external inflammatory swelling than kicks or blows on the Perineum; the stoppage is almost immediate and the subsequent inflammation often severe.

Prostatic enlargement is not usually acute at first but during its chronic course may, and generally does become severe. The abscess in the ischio-rectal fossa may be the result of sitting on some very cold seat after being heated.

However, it is little matter on a first view of the case as to whether the cause has been cold or injury, since the treatment is not influenced thereby to any material degree. It is obviously necessary first of all to remove the cause of obstruction.

and then to remove if possible its effects. If the obstructing cause can not be removed or at all events sufficiently diminished within a moderate time the safety of the patient demands what must then be resorted to, the passage of a catheter, or that being impracticable, puncture of the bladder. If the catheter can be passed, it ought immediately to be removed as soon as the urine has passed off: the reason of this will be obvious when we consider how necessary it is that every irritating body should be removed from contact with parts so tender: the exception to this rule will be found in the case of acute enlargement of the Prostate where it is not found that the swelling is so

readily removed. If abscesses form in the perineum or in the cellular tissue around the rectum, they are to be evacuated as early as possible. — In regard to Inflammatory Stricture then, it must be observed that the treatment is conducted on the ordinary principles of Surgery: first to employ antiphlogistics such as Bleeding, warm fomentations, Tartar Emetic as a nauseant & sedative: reserving the use of instruments until the patients safety demands their use. It is a point worthy of notice that active inflammatory action is all the more likely to take place in a urethra already affected with permanent Stricture.

Spasmodic Stricture seems a disease easy to understand and yet the more carefully is the matter examined the more distinctly may the difficulties be appreciated. It has been said that spasmodic stricture is produced by the contraction of muscular fibres situated along the urethra; but on the most careful dissection muscular fibres can be observed only surrounding the membranous portion while the so called stricture is observed anterior to the membranous part.

There is no doubt that the spasmodic affection is more often observed in persons already affected with permanent stricture. The only explanation to be applied to those cases of stricture occurring

in front of the membranous part, is that the living membrane becomes turgid with blood while at the same time the corpus spongiosum gets into a semierect state. It may be generally found to depend on an excited state of the system which in certain persons whose weak point is the urethra may be manifested there.

This spasmodic stricture affecting either the membranous or spongy part of the urethra must be carefully distinguished from the apparently spasmodic or at least contractile action assumed by very chronic permanent strictures; as they sometimes after being fully dilated, when left for a short time become almost impassable. The best treatment for the truly spasmodic affection will be

to employ such general and local remedies as are most suitable for removing the excited state of the part system.

The warm bath has been found extremely useful and so also have spiritus ~~Aetheris~~ + Camphor as internal remedies.

Permanent Stricture. By permanent or confirmed stricture is to be understood a stricture that will remain in the same condition if not treated by some suitable remedies. At one time it was thought that permanent stricture was the result of some fleshy growth in the urethra, and that it ought to be treated with applications of a solvent or destructive kind such as Nitrate of Silver &c. Instruments of most ingenious structure were formed for

introducing caustic to the obstruction, or for cutting it across in some way or other.

Many cases no doubt recovered under treatment of this kind, but still, perhaps, perfect recovery was the exception, not the rule as far as the result was concerned. As very few observations could be made on the post mortem appearances on account of the infrequency of death from stricture, of course the deep ignorance that existed in regard to its nature need not excite wonder.

But now when the disease has been more carefully examined it is found to be after all simple enough in nature although also presenting great difficulties in many particulars of its treatment. When irritation continues long to affect the urethral tube, then, as its result, some chronic inflammatory

affection of the membrane at a situation more internal than the seat of irritation is very likely to occur. The result of this is the condensation of organizable lymph followed by its organization & contraction in the submucous tissue.

The sort of development assumed by the condensed lymph appears to be in some cases not very dissimilar to that of muscular fibre: and this is remarkable as we believe it to be the only situation in which adventitious tissue exhibits contractile power. This power of contraction may be doubted by some, but still it appears evident enough in a variety of cases. Although we believe that Gonorrhoea is the most frequent cause in the establishment of permanent stricture, yet no doubt exposure to cold & moisture in those predisposed to affections of the urinary organs, or a blow in the perineum, may equally produce most inveterate strictures.

It ought to be remarked that in this disease as in many others its existence for a long period generally is adverse rather than otherwise to Speedy cure.

Indeed the longer a stricture has existed, the more is it still inclined to persist and to put at defiance all ordinary modes of cure. In regard to the site of its occurrence it may be remarked that one part of the urethra is entirely free from its attack: or at all events within our own knowledge and that of all credible authors we believe it is; this situation is the Prostatic portion; and when the shape of the canal is considered it will not appear wonderful that this part should be free from stricture.

The bulb appears to be its most frequent site, and next to that perhaps the portion of the urethra which corresponds to the bend that the penis takes in its ordinary pendulous state. Strictures are also found at the Caruncle glandis

and at the orifice; although not so frequently as in the two former positions. After these, stricture may occur in any situation except the prostatic portion although the likelihood is very much less.

It is obvious that in the treatment of stricture, the most essential change for its cure is the removal of the exuded lymph; and disregarding the various modes of treatment that were proposed for its cure previous to its true nature being discovered, we notice the employment of caustic bougies which if at any time successful never ought to have been as the principle upon which they were employed was quite false. In their employment the object held in view was the destruction of the obstructing part by the action of Nitrate of Silver. It appears now very evident that when they did succeed in removing

the stricture, the effect was produced alone by the irritation of passing the bougie, causing the absorption of the caudal lymph. Arnives contained within proper sheaths have been employed for the purpose of dividing the stricture across, but the cases of successful treatment by this plan are comparatively few in number, for the divided tissue just permits and then matters were as bad as ever. The treatment by dilatation appears to be decidedly the best that has been proposed until very lately, and under it a great majority of cases will rapidly improve.

The bougie is introduced once every two or three days and removed again immediately. By the slight degree of irritation that is caused in introducing the instrument the absorbents are sufficiently stimulated to cause the removal of the lymph. This is the established

practice and certainly it is very successful in most instances; but yet there are every now and then cases occurring that resist alike internal division and dilatation by bougies. We do not mean to say that the stricture does not yield in any degree, but merely that after having, by careful use of bougies, dilated the stricture to the proper diameter of the tube, in a very short time, perhaps in a few hours it may be contracted as firmly as ever. For stricture such as these it is obvious that dilatation by bougies is nearly useless: indeed it is believed that their use is even injurious. Cases of stricture that have been long under treatment frequently assume that very irritating form in which the urine can neither be retained in the bladder nor passed voluntarily. Such strictures render miserable the lives of those who are afflicted with them,

and demand that something further should be done in an endeavour to improve the condition of the patient. Besides the inconveniences already mentioned, it is not unlikely that fistula in perineo may occur as a result of the stricture and this again of itself is quite sufficient from its importance to render an operation imperative. If then a stricture should resist all ordinary means of cure, but more especially if fistula in perineo exist, we have recourse to division of the strictured part by the knife. This operation which has been proposed by Professor Syme, is we believe one of the most successful of the minor operations. A strange mistake appears to have been committed by some eminent surgeons in the mode of performing this operation. Taking it for granted that strictures requiring incision were necessarily impervious, they introduce a staff down to the

stricture and then sought for the latter by cutting down on the point of the former. The danger of such a proceeding needs no comment, while the ignorance of the true nature of permanent stricture exhibited by such men is to be considered as a matter of deep regret. The truth is that no permanent stricture is properly speaking impassable since a tube that will allow even the dribbling of urine must necessarily be wide enough to admit a very small grooved staff.

The operation as performed by Prof. Sime consists in passing a small grooved staff through the stricture, and then making an incision through it on the groove in the staff and so dividing the organized obstruction. The groove in the staff is on the convex border, and the incision is made in the mesial line.

Immediately a full sized catheter is passed and retained for 36 hours or so, and then taken out and cleaned; the instrument may be passed occasionally to convince ourselves that the canal is quite clear. The urine generally passes by its proper way in a much shorter time than might be anticipated. Where Fistula in perineo has existed the treatment is the same in nature.

Some cases that have been under my own observation have been added to illustrate the mode of cure and the facilities that it affords us of conferring the greatest blessing on suffering Humanity: need we say that Health is that boon.

In conclusion it may be observed that if the strictured part is really held by a contractile tissue developed from the canalized lymph, no other treatment but this according to the most extensive experience could be beneficial. For as well might we attempt to cure squinting by dilating the muscle, as attempt to cure inveterate stricture, presenting the contractile quality, by dilatation alone.

Admitted Nov. 19th 1849 } John Robertson
 Report taken Nov 22nd } Oct 31. Labourer

Was a patient in the Royal Infirmary about a year ago. He was under treatment for an abscess in the perineum, consequent on an injury received five weeks before admission. The abscess was opened by Mr Sime & in about ten days the patient, being anxious to return home, left the Hospital & after a fortnight was able to resume his employment as blacksmith. Since that period he has been in excellent health till about six weeks ago, when in consequence of exposure to cold a second abscess formed in the perineum.

This has not hitherto been opened artificially but there are on admission two ulcerated openings in the perineum, one on each

side of the middle line, about $\frac{3}{4}$ of an inch separate, which were observed by the patient to open simultaneously about two weeks ago. A week previous to the appearance of these openings, & since that period, purulent matter has been passing along with the urine. About the same time the patient began to be sensible of pain in the course of the urethra.

It still continues & is referred chiefly to a point about two inches posterior to the external opening. When first noticed it did not commence till some minutes after the bladder had been emptied. The interval of time became gradually less and in a few days the pain commenced invariably before two thirds of the urine had been expelled. At each time of making

water a few drops are observed to pass from the perineal openings. This has invariably happened since these openings took place. The quantity is small, not exceeding two table spoonfuls daily and is not increasing.

On the day of admission Mr. Syme introduced a full sized bougie into the bladder. No stricture could be detected but the patient states that for ten days previously he had experienced almost constant pain at the point of the penis, which has disappeared since the use of the bougie.

Nov 22nd

Today Mr. Syme made an examination of the parts by introducing a probe through the perineal openings.

Nov 23rd. Mr. Sime introduced a grooved staff and made a large incision into the urethra, commencing in the middle line, between the ulcerated openings, and passing backwards about an inch & a half.

The staff was withdrawn and a full sized catheter secured in the bladder.

Nov 25th. The patient has continued well - the catheter was removed.

Nov 27th. Since 25th the urine has come in about equal parts from the perineal incision & from the natural passage.

Dec 18th. Since last report the incised wound has been contracting gradually. About a table spoonful of water daily still passes from it. Patient otherwise well.

Dec 20th. Patient dismissed cured.

Walter Mc Ghee

Servant

Admitted Sept 22nd 1849.

On account of Stricture of the urethra which he had laboured under for the last eight years. He ascribes its origin to a gonorrhoea which was cured rapidly by injections. At the time of its commencement he was considerably relieved by having bougies passed occasionally & did not suffer much pain from the complaint till within the last three months when his sufferings became very severe, being obliged to make water every quarter of an hour, micturition being accompanied with severe straining and scalding. A few days before admission he had an attack of retention of urine and was ultimately relieved by fomentations & the application of leeches to the perineum.

as it was found impossible to introduce a catheter.

Mr. Lyne passed the smallest sized bougie. The instrument was grasped very tightly by the urethra. The stricture was about $5\frac{1}{2}$ inches from the orifice.

Sept 25th. Felt much relieved for the first twenty four hours after the bougie was passed; but is now suffering as much as ever. No 2 was passed.

October 4th. Since admission bougies have been introduced every second day. Today No 8 was passed.

October 8th

Dismissed Cured.

William Mackenzie

Admitted Nov 7th 1849.

The patient states that rather more than seven years ago, while walking along a narrow wooden railing he fell & received a severe blow in the region of the perineum. He is unable to state positively how the accident happened, or in what part he was struck as he fainted almost immediately from the severe pain. On recovering he did not feel very great pain & was able to walk home a distance of only a few yards. He states that he immediately lay down in bed and slept for some hours.

About six in the evening he awoke with considerable inclination to make water, but on making the attempt, he

states that he felt the stream pass readily along the urethra, till it came to a certain point where it appeared to stop suddenly & the pain which was at first inconsiderable became intense. Not a drop of water passed from the urethra. In the evening he was put into a warm bath by the advice of some friends. This had no effect in alleviating the symptoms, but the patient states that some drops of blood were now passed from the extremity of the urethra. During the night he slept little, being prevented from doing so by severe straining which came on almost involuntarily. In the forenoon of the following day Medical assistance was obtained. Several attempts were made to pass instruments into the bladder,

but without success. There was much aggravation of the pain in consequence of slight bleeding. The patient continued in this state of acute suffering till midnight when the medical man returned & after another ineffectual attempt to pass some very small instruments an opening was made through the under surface of the urethra, behind the scrotum in the middle line.

Instantaneous relief followed the operation - the urine passing partly by the wound and partly by a very narrow flexible catheter which was now introduced into the bladder.

The patient fell into a sound sleep after the operation & slept quietly till morning. During the following day he still remained well. In the evening a silver catheter of

a much larger size was introduced instead of the narrow elastic catheter. The catheter was removed, cleaned and returned into the bladder by the medical attendant every two days. This was continued for at least eight weeks when it was finally withdrawn, but for about two months more it was passed occasionally once or twice a week. During these two months the urine passed regularly & without pain - the stream being of moderate size. During this period the wound in the urethra healed slowly & had begun to cicatrize before the permanent removal of the catheter. The patient does not think that there was at first much swelling in the perineum, but he states that on the day after the incision was made there was very extensive swelling in the neighbourhood

of the wound. Ten leeches were applied, followed by poultices & hot fomentations. About a month after the accident & before the removal of the catheter a fistulous communication (which still exists) took place between the lower surface of the urethra, about $2\frac{1}{2}$ inches from its termination, and the external surface in front of the scrotum. The opening was at first small & was for some time unnoticed by the patient.

It was not preceded by any pain or swelling in the surrounding parts. It discharged considerably, & became gradually enlarged. For some weeks it showed no symptoms of closing up, and as its presence was ascribed to the irritation caused by the catheter, this instrument was removed. Since the removal of the

catheter the urine has passed almost entirely from the fistulous opening. A few drops would occasionally pass from the normal termination of the urethra - but not often. This irregular course of the urine does not seem to have caused much pain or irritation, even at the commencement.

For a period of three or four years no other instruments were made use of. The stream of urine which during the time when the catheter was occasionally passed has been of moderate size was observed by the patient after their discontinuance to become gradually smaller. This did not at first occasion him much inconvenience, but in about 12 months an involuntary dropping of urine commenced from the fistulous opening, causing much pain & annoyance.

He could still however by an effort empty the bladder more quickly, but not without considerable difficulty.

The patient again applied for medical advice & an unsuccessful attempt was made to close the fistulous opening by scarifying the edges and bringing them into close contact by means of needles &c.

About a month after this attempt, complete retention took place, no instruments were passed but an incision similar to the first was at once made into the urethra.

No instruments were used after the operation & the urine after escaping for some days by the new opening gradually resumed its former course. The edges of the incision soon united and the wound became quite healed.

over in about a fortnight. For some time after the second incision there was almost entire cessation from the disagreeable symptoms which had been present for some years previous to the operation. The pain & incontinence had disappeared & the urine was passed without inconvenience. This alleviation of symptoms was terminated in about three weeks, by a second attack of retention, on this occasion attempts were made to introduce instruments & repeated use of the warm bath, but without success.

It was now thought advisable that the patient should be conveyed to the Glasgow Infirmary. He became sensible of a slight discharge of urine from the urethral fistula when on his way to Glasgow and this continued until he arrived at the

Railway terminus when a sudden gush of water gave him great relief & when he reached the Infirmary the state of retention had passed off. He remained for three days in the Infirmary without treatment during which time he was comparatively well. On the third day a catheter of small size was introduced & retained in the bladder for three days. During the first 12 hours the water passed regularly through the instrument. In a short time after this the involuntary dribbling recommenced partly through & partly by the side of the instrument. A copious discharge of white slimy matter took place & the catheter became incapable of carrying off the urine which flowed out external to it. On the third day this

was withdrawn, & forcible attempts made to introduce one of larger size, but not even the smallest instrument could be made to enter the bladder. The urethra was then allowed to remain at rest for a day or two, during which time the stream was moderately large & there was no incontinence.

Then No. 1. catheter was introduced, and on the same day a third incision was made into the urethra in the situation of the former two. A catheter of a larger size was afterwards introduced & retained in the bladder for eight weeks, being changed every two days as formerly. During this period the urine came away with sufficient regularity. The catheter was occasionally choked up so as to prevent the egress of the urine which in general passed out between the

instrument and wall of the urethra. There was usually a small degree of incontinence. The incised wound healed much as in the first case, having become cicatrized over before the removal of the catheter.

About a week before this the edges of the fistula were united by suture. This had no effect on the permanent closure of the opening. Various other attempts were made for the same purpose before the patient left the Hospital. The actual cautery was applied & repeated after a fortnight's interval without success. Part of the prepucce was drawn down after making two lateral incisions - and stitched over the edges of the opening. The patient states that on the night following the operation, the stitches separated & that on the second day

there was very considerable haemorrhage
& that a vessel had to be secured.

The patient now left the Hospital and returned home. Since that period a catheter has been passed with great regularity once a week. It is now nearly four years since he left the Glasgow Infirmary - for the first three years of that period he enjoyed good health, passing his urine regularly & had no incontinence. He observed a marked decrease of the stream when the catheter was withheld for a longer time than usual, and an equally obvious improvement for the day or two succeeding the introduction. About 12 months ago symptoms of incontinence, similar to what he had formerly experienced recommenced. Difficulty was often experienced

in passing the catheter & probably owing to this reason it was not done with the former regularity. He was often confined to bed & has remained in this condition till his removal to Edinburgh, with periods of occasional improvement. About twelve months before admission the patient became conscious of the existence of a slight swelling in the region of the incisions into the urethra. It at first increased gradually, but no opening had been made into it naturally or artificially. It has not increased in size, for at least six months. It is the seat of much pain which has suffered much aggravation lately.

Nov 11th. The patient has now been five days in the Hospital & during that time he thinks he has suffered more,

and that his general health has been considerably worse than usual. He has no inclination for food and does not sleep well even with the aid of opiates which have become habitual. His face has a peculiar & very marked anxious, dejected expression. He is very irritable & complains chiefly of an almost constant desire to empty the bladder, accompanied by violent involuntary straining & pain along the course of the urethra especially at its termination. These symptoms are induced by the slightest movement & there is in consequence great difficulty in examining the state of the urethra. The pain at the extremity of the urethra is sometimes intolerable especially in the afternoon & evening. It is in general removed

by opiates & mollient fomentations, but on two occasions chloroform had to be administered. On the second day after admission Mr. Sime introduced a bougie & discovered a stricture in the neighbourhood of the bulb.

Nov 12th. Today Mr. Sime after introducing a grooved staff of small size divided the stricture by an incision carried through the anterior part of the perineal tumour.

This was found on examination to be a simple dilatation of the urethra of considerable size - the finger could readily pass into the true bladder. A full sized catheter was now introduced by Mr. Sime & again withdrawn.

Nov 19th Since the operation on the 12th the patient has been gradually improving, his appetite is now good & he sleeps well, although

the opiates have been gradually diminished. There is still occasional return of the involuntary straining & pain in the urethra, but they are much less violent. The anxious irritable expression has quite disappeared. For two days after the stricture was divided the urine passed as formerly by involuntary dribbling. On the third day he could retain it for a quarter of an hour at a time and on the fourth day after the operation he could retain it for an hour. He now in general empties the bladder every hour & a half. For the first twelve hours the urine passed in equal parts from the perineal incision & from the fistulous opening. Since that period it has come away entirely by the former.

Nov 26th. About two thirds of the urine

passes by the fistulous opening. During last week he has had only two attacks of pain at the extremity of the urethra.

Dec 8th. The perineal incision is now almost quite contracted. A small portion of the water still passes from it.

Mr. Sime attempted to close the fistula in front of the scrotum by paring the edges of the opening, dissecting back part of the integuments & uniting the edges over a catheter, previously introduced into the bladder, by the twisted suture.

Mr. Sime removed the catheter on the third day. Union has not taken place by the first intention.

Dec 20th Wound granulating & assuming much of its former aspect. The patient is otherwise quite well.

Charles Gordon - Aged 42.

Admitted January 28th 1850. on account of stricture of urethra, which appears to have existed upwards of 25 years.

The patient states that he contracted a gonorrhoea, at the age of 16, for which he used some strong solution of sulphate of Copper. For some years subsequently he had at times considerable difficulty in making water, especially when he had been exposed to cold. Thirteen years ago when employed on the river St Lawrence he received some severe injuries by the fall of a large beam of wood, among others a rupture through the left inguinal ring. He does not seem to have had any laceration in the neighbourhood of the perineum, but his former symptoms of stricture

became more aggravated immediately
 after the accident. The symptoms appear
 to have become gradually more troublesome
 and occasionally causing extreme suffering.
 About seven years before admission, a
 tumour formed in the perineum immediately
 posterior to the scrotum. It pointed and
 was opened by a needle. A small quantity
 of purulent matter first escaped, followed
 by a quantity of urine. Both before and
 subsequent to the opening of the abscess, the
 patient experienced extreme pain in making
 water. He states that the urine on these occasions
 always passed into the cavity of the abscess
 forming a tumour as large as the fist.
 On one of these occasions when he was almost
 mad with the extreme pain he attempted to
 introduce through the stricture a piece of

whalebone bent into the form of a bougie.
 He believes that he made a false passage, having
 felt the point of the whalebone beneath the
 integuments on the left side of the anus. A
 second abscess formed, which when opened
 discharged a large quantity of pus & urine.
 After 12 months a third opening took place on
 the right side of the middle line. The three
 fistulous remained much in the same state
 for three or four years. The urine was passed
 from them & only in very small quantity from
 the extremity of the urethra. At each time
 of making water the urine caused extreme
 irritation & always a visible tumour in the
 perineum. He seldom made water oftener than
 three a day having accustom'd himself to
 extremely minute quantities of fluid.
 Some years ago he entered the Edinburgh

Hospital. Dr. Duncan made an incision two inches in length into the urethra, cutting down upon a No 1 bougie which was allowed to remain in the bladder for 12 hours. The patient was discharged in a fortnight since then, he has occasionally introduced a No 6 bougie.

The symptoms of stricture are however becoming more apparent & gradually resuming their former condition.

Feb 13th. Mr. Sime operated on the 4th inst, and the patient is now going on pretty well, although considerable swelling took place after the operation, with some constitutional disturbances.

Edmund Sidney Watson