**On the uses of electrolysis in affections of the male urethra / by C. Yelverton Pearson.**

# ON THE USES OF ELECTROLYSIS

IN

# AFFECTIONS OF THE MALE URETHRA.

BY

C. YELVERTON PEARSON, M.D., F.R.C.S. Eng.;

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EXAMINER IN THE ROYAL UNIVERSITY OF IRELAND, &c.



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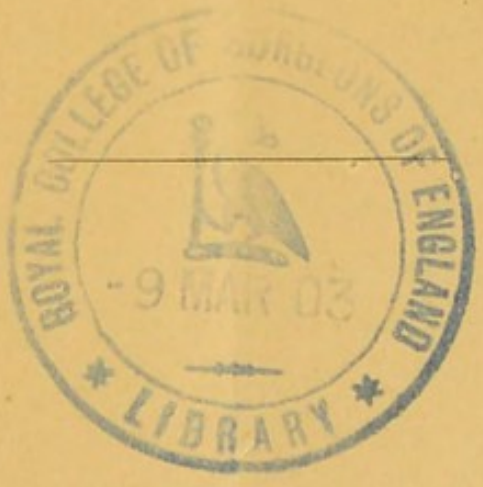


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# AFFECTIONS OF THE MALE URETHRA.[a]

THE subject of the uses of electrolysis in affections of the male urethra is one which, I trust, may not be devoid of interest to the Surgical Section of this Academy—more especially as it has not received that amount of attention in this country or Great Britain to which I believe it is justly entitled—and I trust that the results of my somewhat limited experience may throw some additional light on the class of cases for which it is most suitable, and may stimulate some of my professional brethren to give it an impartial trial.

I believe the fact that electrolysis in the treatment of stricture and allied affections has not met with much favour amongst our leading surgeons, is due, in the first place, to a natural prejudice against novelties, and a conservancy in favour of older and more tried methods; in the second place to a distaste for mastering the necessary details; and thirdly, perhaps there exists a feeling that the adoption of this mode of treatment might have a tendency to drive such cases to the specialist in electricity to the detriment of the general surgeon. I am, however, thoroughly satisfied that any intelligent person who believes in the efficacy of this mode of treatment, and is anxious to put it to the test, will not have much difficulty in acquiring the requisite amount of knowledge.

[a] Read before the Section of Surgery of the Royal Academy of Medicine in Ireland, May 20, 1892.

My attention was first directed to the subject of urethral electrolysis by the writings of Dr. Robert Newman, of New York, and again by a paper published by Dr. Steavenson and Mr. Bruce Clarke, of London. But what finally riveted my attention on the subject, and determined me in giving it a trial, was a conversation which I had with my cousin, Dr. C. H. Haines, of Auckland, some three years ago when he visited this country, in the course of which he asked me if I had ever given a trial to electrolysis in the treatment of gleet or stricture, and he mentioned in particular a case of gleet of two years' standing which he had succeeded in curing by two applications, after all the ordinary methods of treatment had failed. He said that it occurred in a naval surgeon who had been stationed in New Zealand. By one of those strange coincidences which serve to illustrate how small a world it is in which we dwell, this very surgeon appeared in my consulting-room a few weeks after this conversation took place, to consult me on another matter, and mentioned incidentally that he had been most successfully treated for a gleet of two years' standing by Dr. Haines, of Auckland.

The mode of treatment I adopt is nearly similar to that advocated by the authors I have referred to—any points of difference will be indicated as I proceed—but as some of my hearers may not be familar with the usual technique, I shall briefly indicate the most essential points which require attention—

1. A suitable galvanic battery must be employed, the current from which will be fairly constant.

2. A galvanometer graduated in milliampères is absolutely necessary so as to indicate the exact strength of the current.

3. I think it is advisable to introduce a water Rheostat into the circuit, so that the current can be increased or diminished in a very gradual manner.

4. Insulated electrodes terminating in a conical or bulbous plated metallic knob, and of suitable sizes are required, both straight and curved. Those I first employed I obtained from Messrs. Coxeter & Son; they were straight, but could be readily curved if so desired, but not graduated. I, however, got this firm to make me some graduated in half inches, so that the exact distance of the part operated upon from the meatus may be readily known. I also employ stiffened electrodes, with the usual curve of a silver catheter, for making applications to the curved portion of the canal. These are provided with flattened handles, one side of which is rough, so that there may be no doubt as to the direction of the point of the instrument when introduced.

5. An electrode of large surface is required for external application.

The *modus operandi* is as follows:—The large external electrode having been thoroughly moistened with hot water is applied above the pubis or to the lumbar region. I prefer the latter situation, as the pressure of the patient's body upon it maintains a steady contact—a condition not to be calculated on when applied to the anterior abdominal walls owing to the respiratory movements—unless, indeed, a heavy one be employed, such as Apostoli's clay electrode—the weight of which causes it to exert a pretty uniform pressure. This external electrode must in all cases, where we employ urethal electrolysis, be connected with the positive end of the battery.

The urethral electrode being invariably made the negative pole, is passed down to the affected portion of the canal, and held there steadily; the current is carefully turned on to a strength of from two to ten milliampères—five milliampères being the usual strength employed. A gentle pressure is made on the urethral electrode, so as to cause it to glide through the stricture or over the inflamed surface—it must

be moved very slowly, and very little force should be employed, as the instrument will in most cases advance with very slight assistance. When the affected region has been passed, the current may be gradually diminished, and finally shut off before the instrument is withdrawn, or, if so desired, it may be very gradually withdrawn with the current still on, so as to make a second application to the diseased surface. The entire sitting may occupy from three to five minutes or considerably longer in exceptional cases. When dealing with granular urethritis it is best to employ an electrode somewhat smaller than will be sufficient to distend the urethra at the inflamed spot. On the other hand, when operating on a stricture we select one a size or two larger than the calibre of the stricture itself. After the current has been continued for some minutes it will with the use of very gentle pressure pass through an ordinary stricture, provided it is not too extensive or unusually indurated. Though a current of eight or ten milliampères may be used, I am personally of opinion that weaker currents of three to five milliampères continued for a longer time at each sitting will give equally satisfactory results, and with less distress to the patient. It has been stated by some authorities that the application of urethal electrolysis in the manner I have described is perfectly painless. This is not true of all cases. I have found that the application of a current of even two milliampères to an irritable stricture, or a very sensitive patch of granular urethritis, sometimes gives rise to quite an unbearable pain, and in these cases I employ either an injection of five per cent. solution of cocaine when dealing with the spongy portion of the urethra, or pass in a soluble bougie containing one or two grains of cocaine, which can be slowly pushed down the urethra by means of the electrode I am about to employ.

When an application has been made it is often followed by an intense desire to urinate, which, if restrained by the

patient, will pass off in a few minutes. I am of opinion that it is better for the patient to restrain this desire when possible, and also to avoid micturating as long as possible after each *séance*, as the passage of urine on the first occasion after each application is usually attended with some amount of scalding, which becomes less on each subsequent occasion, and is much diminished by the internal use of alkalies and diluent drinks.

If so desired the urethra may be washed out with a warm, saturated solution of boric acid previous to making an application; but this is unnecessary, as the electrolytic action renders the application aseptic. I refrain from giving further details of the methods employed, for which I must refer you to other sources. However, I should mention that an interval of from five to ten days should elapse between successive applications, a week being the usual period.

In dealing with a case of stricture it will be found that, after passing an electrode of any particular size through the stricture at one sitting, when the patient is examined in a week afterwards, not alone will the instrument employed on the previous occasion pass with ease, but the stricture will usually admit one a size or two larger without the employment of force. Thus it will be seen that the amount of benefit resulting from the application is not merely the result of dilatation, as has been stated by the opponents of the electrolytic treatment.

I shall now proceed to relate to you some of the cases in which I have employed this treatment, in as brief a manner as will be consistent with a clear understanding of their nature and the results attained.

Case I.—*Gleet; Slight Stricture at Bulb, with Patch of Granular Urethritis, two inches from Meatus. Successfully treated by Electrolysis.*—R. B.; history of gonorrhœa, with epididymitis; now has gleet of 18 months standing.

*Examination.*—Nov. 18th, 1889.—Passed No. 22 F bulbous instrument; this was arrested 6 inches from meatus. Then passed 19 F. graduated bougie; this was grasped tightly when passing through bulbous portion of urethra.

*Treatment.*—Nov. 20th.—Recommended electrolysis; applied No. 18 electrode to bulbous urethra for five minutes—strength of current, 5 milliampères; also applied No. 27 to a tender patch in the anterior part of urethra for five minutes. These applications gave rise to no pain, but produced a hot sensation, which the patient had no difficulty in bearing. There was no subsequent pain or uneasiness, except on the first two or three occasions during micturition, when some scalding was experienced.

Nov. 27th.—Passed No. 20 F without difficulty; applied No. 22 electrode, 5 milliampères. This passed through the constriction in three minutes. Then applied No. 24 electrode; this also passed through in three minutes.

Dec. 4th.—No. 24 bougie passed with slight resistance. Applied No. 24 electrode, with a current strength of 5 milliampères; this was worked very slowly backwards and forwards at the seat of constriction for five minutes. I then introduced No. 27 electrode, this was arrested two inches from meatus; a current of 5 milliampères was applied, and it passed through in three minutes. It was worked slowly backwards and forwards for seven minutes.

The patient was examined ten days afterwards, when No. 27 bougie passed through the entire urethra without any unusual resistance. The patient was subsequently examined on a few occasions at intervals of about a month, but no return of the tenderness or constrictions had occurred, and the patient has, to my knowledge, remained free to the present time from any return of his former troubles.

So far as the gleet was concerned, the amount of discharge underwent some increase in three or four days after the first and second applications—not after the third—but steadily diminished after a few days, and had ceased at the time of the next examination, and did not subsequently re-appear.

Case II.—*Deep-seated Multiple Stricture with Perineal Fistula and exceedingly Irritable Urethra.*—G. B., recommended to me by the late Surgeon Corley, of Dublin, consulted me 3rd May, 1889.

There was a history of aggravated stricture complicated with extravasation of urine, a perineal fistula which still existed at the

time of examination, and through which a considerable quantity of urine escaped during micturition. There was also some œdematous swelling of the scrotum, and some purulent discharge from the urethra. The urethra was excessively tender and irritable, the most gentle passage of an instrument being attended with great pain. I was informed by Mr. Corley that he had a few months previously performed internal urethrotomy, and divided some exceedingly tough strictures in the deep urethra with a Maissoneuve's instrument.

At the time I first saw the patient he was able to pass a No. 7, and sometimes a No. 8, English-sized, soft rubber catheter, with which he drew off urine a few times daily, but not on all occasions. He had been using these instruments since recovery from the operation, but had not increased the size he employed, though directed to do so by Mr. Corley. I strongly urged the necessity of employing graduated bougies of increasing calibre to dilate the urethra, but after about a week's trial, finding that there was no progress being made, while the urethra remained intensely irritable and unyielding, and as it was impossible for the patient to lie by for any further operative or other treatment, I suggested the employment of electrolysis, with the object both of allaying the irritability and increasing the calibre of the stricture. Having obtained Mr. Corley's consent to this course, I commenced the electrolytic treatment on May 19th. The employment of even the feeblest current gave rise to so much pain that I injected a 4 per cent. solution of cocaine before proceeding with the application. I then employed a current of 3 milliampères. The second application was made on May 26th. The urethra was much less irritable; cocaine was again employed, and a current of 5 milliampères was applied. The third application was made on June 16th, and this time the patient was able to pass a No. 8 English catheter with ease, and the irritability of his stricture was so far reduced that the patient was able to bear the application without the aid of cocaine. After this application he was fairly well for four or five days, then got pain during micturition, and a swelling formed in the perinæum in front of the fistula. This all subsided in a few days, and the patient was able to pass a soft No. 8 without pain, but could not pass a gum-silk bougie of the same size. When seen by me on June 23rd the urethral discharge had greatly diminished—some urine still passes through the fistula, and the scrotum and penis are slightly œdematous. I passed a No. 17 F. bougie, which was

tightly held by the stricture. I directed him to use a soft instrument to draw off the water for the present, but postponed making any application. On July 22nd the patient expressed himself as feeling decidedly better; the swelling had greatly subsided, and the irritability of the urethra had practically disappeared. I again applied electrolysis.

Unfortunately in about a week afterwards the patient was obliged to leave Cork, so that the treatment had to be abandoned. He wrote to me a few weeks afterwards stating that his condition was decidedly improved, and expressing his regret that the treatment could not be continued.

In June, 1890, he returned to Cork, and asked me to make some further applications. Accordingly, on June 7th I again employed electrolysis. This time I succeeded in getting a No. 18 electrode behind the posterior constriction, and made the application while slowly withdrawing the electrode. On June 14th I used Nos. 18 and 20 in succession. On June 21st I again employed No. 18 and 20. On July 3rd I used No. 20 electrode for ten minutes. On July 11th I applied Nos. 20 and 22.

The patient had again to leave Cork, so that the treatment came to an end. But, as indicated by the records I have given, was benefited to the following extent:—

1. The irritability of his urethra had completely disappeared.
2. The calibre of his stricture had increased 15 mm. to 22 mm.
3. He was able to pass a good stream of urine without pain.
4. The fistula was much reduced in size, and permitted only a small quantity of urine to escape.

I am unable to give details of the subsequent history of this case, but I have reason to know that from carelessness about the use of instruments, and from occasional indulgence in free-living, the patient relapsed into his former condition, and was at least twice unsuccessfully operated upon for the cure of the fistula. I think it quite possible that a more successful result might have been attained by a continuation of the electrolytic treatment.

Case III.—*Impassable Traumatic Stricture of Spongy Urethra, treated unsuccessfully by Electrolysis, subsequently by Operation with successful Result.*—M. D., farmer, aged thirty-one, received injury to perinæum early in Dec., 1889, by falling from the top of a load of corn, astride the heel of the shaft—the entire force of the fall being brought to a check by the impact on the perinæum—followed

by profuse urethral hæmorrhage. Had no treatment, but went to bed for a week, during which time there was some swelling at the scrotum and hypogastric region. There was also hæmorrhage at the commencement and after micturition, which act was accompanied with great pain. The dysuria became more and more difficult, and greater force was required to expel the stream, which steadily underwent diminution until it became a mere dribble. The symptoms became more and more aggravated, and he became so alarmed that he sought medical advice on April 14th, 1890. He was recommended to come to the North Infirmary, where he consulted me on April 17th.

On examination I found a stricture commencing $4\frac{1}{2}$ inches from the meatus, which was quite impassable to even the smallest instruments. He was made to pass water, which came away in drops, there being no continuous stream.

I recommended the patient to come into hospital, and submit to operative treatment. His objection to this course was so great that I determined to give a fair trial to electrolysis, as I believed the case was one which would answer as a severe test. The patient readily consented, and the electrolytic treatment was commenced on April 18th. On this occasion a medium-sized electrode was passed down to the face of the stricture; a current of 5 milliampères was used for twenty-five minutes, but without any appreciable advance. At the patient's next visit he expressed himself as being greatly relieved—the frequency of micturition being reduced to normal, while the size of the stream was decidedly greater and less force was used during its expulsion. Electrolysis was employed on five subsequent occasions, the current being increased first to 7, and afterwards to 10, milliampères. On each of these occasions two electrodes were employed—one of medium, the other of small size—each being kept steadily pressed against the stricture, but at the conclusion of the sixth *séance* the amount of progress that had been attained, so far as the introduction of the electrode was concerned, did not amount to one-eighth of an inch, while the stricture still remained impassable to the finest bougies, so I strongly urged the advisability of operation, to which the patient readily consented, as he fully recognised the gravity of his case.

He was admitted to the North Infirmary, where I performed the following operation, which I shall describe in detail, as it differs in some respects from the usual methods of procedure in such cases.

The patient was brought fully under the influence of chloroform; the urethra was first injected with a saturated solution of boric acid, then with carbolic oil, and I carefully endeavoured to pass a fine filiform bougie through the stricture, but without success. A metallic staff was passed down to the seat of stricture so as to mark its situation; I then deliberately cut down by a median incision through the perinæum, and laid open the urethra behind the stricture. I then endeavoured to pass a fine bougie from the perineal wound in a forward direction through the stricture, which I accomplished successfully. To the anterior extremity of this bougie I attached the end of the filiform bougie of a Tevan's urethrotome by means of silk, and drew it forcibly backwards through the stricture by pulling on the posterior end of the instrument that had been introduced from the perinæum. The metallic portion of the urethrotome was then attached to its guide, and by drawing on the latter from the perinæum the instrument was conducted successfully through the stricture, considerable force being necessary to accomplish this end. A very tough stricture, about half an inch in length, was then divided from before backwards along the roof of the urethra, after which I introduced a Thompson's urethrotome through the meatus until its bulbous end appeared in the perinæal wound, and divided the strictured portion of the urethra on its inferior aspect from behind forwards. This being accomplished, I passed a No. 18 English curved metallic dilator (such as I now show you) through the entire length of the canal. When this was withdrawn I introduced a large gum-elastic catheter from the perinæal wound into the bladder. This was tied in for some days, the urine being drawn off at intervals, so that none of it was allowed to pass through the previously strictured portion of the canal. After the divided urethra had been thus permitted to rest for four or five days, a large catheter was passed from the meatus, and tied in until the perinæal wound was almost healed. After this the instrument was withdrawn, but was passed each time by the patient that he required to draw off water. Metallic dilators were also occasionally introduced.

The perinæal wound quickly cicatrised, and on the patient leaving hospital I was able to pass a No. 18 English dilator without difficulty—this being the largest size that the meatus would admit. The patient was given an olivary gum-silk bougie, No. 26 F, with instructions to pass it at suitable intervals. He

was subsequently examined on a few occasions by me, when I found his condition remained satisfactory.

The operation I have described serves to illustrate the combination of internal urethrotomy with perinæal drainage through an external urethrotomy performed behind the seat of stricture, a procedure which I believe was first advocated by my friend, Mr. Reginald Harrison, and which I had previously employed in a few suitable cases with equally satisfactory results.

The deductions to be made from the use of electrolysis in this case I shall refer to later on.

Case IV.—*Neglected Multiple Stricture of Ten Years' Standing Treated Successfully by Electrolysis.*—M. G., aged thirty-two, consulted me June 17th, 1890. Got stricture ten years ago following gleet, which was not treated until four years after; then got it dilated. Had since occasionally passed bougies, but neglected himself of late, so that now he is only able to pass No. 2 English bougie. On examination I found a lunated stricture on the floor of the urethra, three-quarters of an inch from meatus. This allowed No. 20 F bulbous instrument to pass, but it caught during withdrawal. Another of 8 mm. calibre existed two inches from meatus; a third of 5 mm. extended from a point five inches from the meatus as far the membranous urethra.

The lunated stricture near meatus was first divided, and electrolysis was applied to the middle and posterior strictures on a few occasions; but, finding the middle stricture interfered somewhat with the treatment of the posterior one, I divided it from behind forwards with a Thompson's urethrotome, and as soon as it was healed I continued the electrolytic treatment of the posterior, to which the electrolysis was applied on six occasions at variable intervals, with the result that, after the 6th application, a No. 22 F bougie could be passed without difficulty into the bladder. The patient being then quite free from all vesical irritation, and able to pass a good-sized stream, was so satisfied with his condition that the treatment was discontinued. From the unyielding nature of the stricture in this case as well as the previous history of his progress under dilatation, I am satisfied that an equally satisfactory result could not have been attained by the process of general dilatation.

Case V.—*Gleet of Eighteen Months' Standing, due to Granular Urethritis, Cured by Electrolysis.*—H. R., aged twenty-eight, consulted me on January 24th, 1891. Got gonorrhœa in June, 1889, for which he was treated in Dublin. Has never been quite free from slight discharge or moisture; also complains of an uneasy sensation in the perinæum; wished to be examined as he was contemplating marriage.

I passed a No. 23 F. olivary bougie without encountering any obstruction; but it gave rise to a disagreeable sensation in the perinæum. A bulbous sound indicated the presence of a tender patch and some irregularity at the region of the bulb. Examination with Leiter's urethral electroscope showed the presence of a conjested granular patch, partially covered with muco-purulent discharge at the bulbous urethra. Electrolysis was recommended and applied on three occasions at intervals of a week, a current of 5 milliampères being used. The first application was attended with considerable pain, the second with very little, and the third was painless, being accompanied with only the usual hot sensation due to the galvanic current. On March 21st the patient was practically well, being free from all uneasiness and discharge; but at his own request I made another application. He returned on April 4th, expressing himself as being thoroughly cured. He got married shortly afterwards, and has remained quite well since.

Case VI.—*Sexual Weakness and Imperfect Micturition, resulting from repeated Gonorrhœa, treated successfully by Electrolysis.*—W. C., aged thirty-two, draper, has had gonorrhœa on several occasions, also was told he had a slight stricture, which was treated by gradual dilatation. At present complains of dribbling of urine at end of micturition, and imperfect sexual power, with too early orgasm; there is no gleet. Examination did not reveal the existence of any stricture or granular patches, but the membranous and prostatic portions of the urethra were in a hyperæsthetic condition, and the passage of an instrument through this portion of the canal immediately produced an erection. I recommended electrical treatment, and applied the negative pole with a current of 5 milliampères to the affected portion of the canal on four occasions, at intervals of from seven to ten days. The result was entirely satisfactory; the over-sensitive condition of the canal completely subsided, also the tendency to priapism,

while the natural functions were restored to the entire satisfaction of the patient.

Case VII.—*Case of Gleet following on Gonorrhœa Successfully Treated by Electrolysis.*—J. H., aged twenty-five, accountant, had acute gonorrhœa, complicated with prostatic abscess and epididymitis six months ago; still suffers from urethral discharge, which he has failed to cure by the careful use of various injections, and the internal administration of the most approved urogenital remedies. Examination revealed the presence of granular urethritis affecting the bulbous and anterior half of the membranous urethra.

I submitted him to the electrolytic treatment, three applications being made at intervals of about a week, the first being a current of 3 milliampères, the second and third, 5 milliampères each. About six days after the last application all sign of discharge ceased. There has been no return, and he is now perfectly well.

I could multiply cases of a somewhat similar character to this; but I think I have given a sufficient number to illustrate what I desire to bring under your notice.

I shall now proceed to notice the deductions which may be made from the foregoing cases, which, though limited in number, are sufficiently diverse in their nature to afford some useful indications as to what may or may not be expected from the employment of electrolysis in the manner I have indicated. I shall deal with the cases in the order which appears most suitable for this purpose.

Cases I., V., and VII. are typical examples of the class of cases which, in my opinion, can be rapidly and permanently cured by the electrolytic treatment—that is where we have chronic gleet due to the existence of granular urethritis in the deep urethra which may or may not be associated with a slight amount of stricture. These are the cases in which Mr. Berkeley Hill, in his lectures delivered at the Royal College of Surgeons, London, in 1889, on chronic urethritis, strongly advocates the local application of nitrate of silver solution applied through an endoscope, which treatment has

proved most successful in his hands. I am, however, of opinion that the electrolytic possesses distinct advantages over such treatment—First, because it is much less painful; second, the applications are not followed by fresh inflammation, such as often follows the use of nitrate of silver; and, third, the number of sittings required to produce a cure is fewer than with the caustic treatment.

Case II. serves to illustrate how, even under most unfavourable conditions, considerable benefit may be obtained by the use of electrolysis. The most notable feature in this case was the rapid manner in which extreme irritability of the urethra was relieved by a few applications, and in addition a very tough and unyielding stricture was considerably enlarged in calibre, though it resisted dilatation by the passage of bougies in the ordinary manner. The patient was himself very strongly of opinion that, if he had been permitted to remain under my care for a sufficient time, his stricture would have been completely cured by a continuation of the treatment—that in all probability a cure of the fistula would also have resulted—an opinion with which I see no cause to disagree.

Case III.—A consideration of the course of electrolytic treatment in this case shows that we need not hope for much benefit from its use in the ordinary way in cases of impassable traumatic strictures. Where, however, an electrode can be made to enter the strictured canal, a more favourable result might be anticipated; but I have no personal experience of such cases. Perhaps, if the method advocated by Dr. J. A. Fort was employed in the case I have related, a more satisfactory result might have been obtained. "In this method the active portion of the electrode consists in a linear exposure of metal at or near the point of the sound. By the use of this instrument a narrow furrow can be ploughed through the constricted portion of the canal and afterward

dilatation, either with or without electricity, practised. Dr. Fort also uses this method for all ordinary strictures, and reports satisfactory results with it."

Case IV. is an example of a case of neglected and indurated stricture which yielded in a very satisfactory manner to electrolysis. In this case gradual dilatation had previously failed, and had the electrolytic treatment not been employed, the patient would soon be compelled to submit to some radical form of treatment, such as internal urethrotomy.

Case VI.—I have introduced this case to your notice to illustrate how a very distressing and common ailment—namely, sexual weakness depending upon a hyperæsthetic condition of the membrano-prostatic urethra may be relieved by the suitable employment of electrolysis. I have experienced equally satisfactory results in some other cases of a similar nature, but refrain from occupying your time by relating their details.

To sum up, I think we may fairly conclude that electrolysis is capable of yielding very satisfactory results—

(1) In cases of gleet due to granular urethritis.

(2) In cases of simple stricture, such as are ordinarily submitted to the method of gradual dilatation—and it is claimed by those best qualified to speak on the subject, that the cures effected by its use are permanent, a result which certainly cannot be claimed for the ordinary surgical methods of treatment.

(3) That even very rigid and old-standing strictures can be greatly relieved, if not absolutely cured by its use.

(4) That it has remarkable power in relieving irritability of the urethra, and removing the distressing desire for frequent micturition which so usually accompanies it.

(5) That it may be of considerable use in dealing with cases of supposed or real loss of sexual power, such as are too well known to every surgeon of experience, and which

constitute some of the most distressing cases with which we come in contact.

I have refrained in this paper from referring to some other affections of the genito-urinary organs, in which electrolysis has been advocated. I have also purposely abstained from entering into any theoretical discussion as to the manner in which electrolysis brings about the results claimed for it. I must, however, point out that this operation, with the strength of current employed, is not in the nature of a cauterisation—it is electrolysis pure and simple. There is no elevation of temperature in the electrode, and no charring of tissue. The pathological tissue is slowly dissolved by the electrolytic action of the current, which probably also stimulates the absorption of infiltrated products.

In conclusion, I think I may claim to have shown that electrolysis is a remedy very potent for good in suitably selected cases, and fully worthy of our best consideration.