CASE
OF
STRICTURE OF THE URETHRA,
TREATED BY INCISION,
BY JAMES M. ARNOTT, Esq.

Read June 26th, 1822.

IN cases of Stricture of the Urethra of long duration, which do not admit of the passage of the smallest bougie, and where the application of the caustic is not producing any benefit, it sometimes becomes a question what further treatment ought to be pursued. The ordinary practice in such cases is, to persevere with further trials of the caustic, whilst it occasionally happens that an attempt is made to force the stricture; but with respect to the cutting down upon the diseased parts, this has been usually reserved for the extreme case where total obstruction to the passage of the urine has taken place, and the patient is in immediate danger from distended bladder. In the treatment, however, of the old and narrow stricture of the urethra, although the obstruction to the passage of the urine be not complete, this last operation appears to me to offer some advantages; and as it is not usually resorted to simply with the view of

curing the stricture, perhaps the relation of the following case may not appear uninteresting.

The patient was a married man, 49 years of age, of spare make and temperate habits, who, for the last fifteen years, had suffered from stricture of the urethra; and for which, at different times, he had been under the care of various medical men. For the last four years, however, it had not been possible to get a bougie into the bladder; and about twelve months before I saw him he had consulted an eminent surgeon, who, at the end of eight weeks, having failed with other means, had endeavoured, but without success, to force a catheter into the bladder; considerable hemorrhage following this attempt, the patient for a time desisted further seeking relief.

When he came to me he complained of being called upon every hour to make water; and these calls were extremely urgent, attended with much straining and severe pain, with the total incapacity on his part of being able to urge his urine but drop by drop. On passing a bougie, it was stopped towards the bulb of the urethra; and on trial it was found impossible to get the smallest bougie into the obstruction. He was kept quiet for a few days, but on then renewing the attempt, and afterwards at intervals for a fortnight, the same want of success was still experienced. The caustic was now applied, and repeated twice at the intervals of

five or six days, but without any beneficial result, and, under all the circumstances of the case, feeling little confidence in the remedy, I laid it aside.

Upon taking into view, then, that the disease was one of long standing, and that the patient had been under the care of a number of practitioners, the probability was, that the parts were firm and indurated, and that the morbid change occupied some extent of the urethra. Upon these considerations it appeared to me that the only way of avoiding all uncertainty as to getting fairly through the obstruction would be to cut down upon it, more especially as the patient's health was in a very favourable state for the success of such a method of treatment. On submitting the case to Mr. Shaw, that gentleman came to the same conclusion as myself with regard to the expediency of the proposed operation; and the patient agreed to it at once, rather than continue in his present distressing state.

Owing to a contraction of the urethra an inch and a half from its extremity, a catheter, under the middle size only, could be passed down to the obstruction at the bulb; and as its point could be but obscurely made out in the perineum, the external incision was made rather free. On reaching it, and making an incision in the urethra anterior to the obstruction, the point of a very small grooved probe was guided into the aperture and pushed on to-

wards the stricture, into which it entered with little difficulty, and was afterwards felt to have entered the bladder. Upon this a bistouri was run down, and the strictured portion divided, occupying, if one might judge by the sensation, not so much as a quarter of an inch in length. The probe being kept in its place in the urethra, the catheter was immediately carried onwards with great facility into the bladder, and upwards of a pint of urine drawn off; although about ten minutes before the operation, the patient not being able to resist the pressing call to make water, passed a small quantity, and had, as he supposed, completely emptied his bladder.

No unfavourable symptom occurred. On the fourth day the catheter was withdrawn; for when the patient was making water through it, the urine passed partly by the sides of the instrument, between it and the urethra. It was replaced by a larger sized one of elastic gum; but in two days afterwards this was taken out, as it seemed to create irritation, and a silver one, of a size fuller, passed in its place; which again, in two days more, gave way to one of the largest size. The wound healed favourably: for the first five or six days its lips were merely moistened with urine; by the end of a fortnight it was quite closed. The catheter was then withdrawn during the day, the patient now making water in a full stream; the instrument was, however, continued to be worn at night for

another week, when it was left off, and a bougie afterwards passed only occasionally. In the course of the first eight days of wearing the catheter in the urethra, the induration surrounding the contraction in the canal, an inch and a half from its extremity, had entirely dispersed, and the largest sized catheter passed with facility.

The advantages of the treatment by incision in the above case are very evident: and if, without entering into any theory with respect to the origin of stricture, we merely consider what dissection proves to be the state of the affected parts in cases similar to that just related, we shall probably come to the conclusion, that this method of cure ought to be more frequently adopted than it has been hitherto. When a stricture has existed for years, and has been the subject of much and unsuccessful treatment, the parietes of the urethra at the seat of the obstruction are thickened and indurated, so much so as frequently to amount to callosity. The difficulty with which caustic acts on a texture so indurated as we have here to deal with must be manifest, and is proved by the fact of the number of applications, sometimes amounting to sixty or seventy, found necessary to get through a stricture, which, there is reason to think, is of no great extent: besides, we never can be perfectly sure that we are applying the remedy exactly to the proper place, as is evidenced by the production of false

passages from its employment. In using the knife there is neither the former difficulty nor the latter uncertainty; we at once get through the obstruction, and fairly through it: both of which circumstances were much facilitated in the above case by the assistance of the small director. This instrument was of the size of the smallest catgut bougie; and although a stricture may not give entrance to a flexible instrument of this size introduced from the extremity of the urethra, still a solid one held very near it may be carried in, even in those cases where, as in the one related, the urine should have passed only *guttatim*.

The removal of the induration is the consequence of keeping the catheter in the urethra; for during this time it gradually disperses: at least we may infer that this is the case, from what occurred at the stricture an inch and a half down, in the instance that has been detailed. The visible phenomena were, slight irritation in the canal, some puriform secretion from its surface, and the disappearance, in the course of eight days, of the indurated substance; a process which would have been, by the older surgeons, sufficiently, although not accurately, designated by the expression of its having melted away. And I may take this opportunity of mentioning, that, as far as my own experience goes, whenever there is organic change constituting a stricture, much greater advantages

are derived from leaving an instrument in the urethra for some time, than by the usual practice of merely passing it for a few minutes.

In judging of the advantages of the treatment by incision of such cases of stricture as we are speaking of, we must also take into account, that whilst the extent in length of the diseased change is seldom great, still it sometimes is considerable; a circumstance weighing against the employment of the caustic, but which is of no moment with regard to the knife, as the extent of three lines or twelve can be divided with equal ease and quickness.

The only arguments which may be advanced against the resorting to the treatment by operation, are its danger and severity. As for the first of these, no surgeon thinks of danger when he cuts down upon a stricture in order to heal a fistula in the perineum, and surely there is no additional risk in the cases we are considering. With respect to the severity of the process, this will scarcely be taken into account by those who have witnessed the distressing state of a man with a stricture so narrow that he can only pass his urine in drops or in a thread-like stream; or by a surgeon who knows that such a state will gradually wear out the patient's health, even should he not be attacked with total retention of urine, which he is daily liable to, and will then of necessity require the performance

of this or a still more severe operation, under unfavorable circumstances for its success.

It is unnecessary to point out the superiority of the treatment by incision over what has been called forcing the stricture, which, although reprobated in principle, seems still occasionally adopted in practice: for if an instrument is to be urged into the bladder, it is very evident that it is much better to do it by the former method, which is simple, easy, and certain, than by the latter, where nothing is certain, but that great violence must be used.

*Golden Square,
June 22d, 1822.*