II

STRUCTURE OF THE URETHRA

By MR. R. H. JOCELYN SWAN, M.S.(Lond.), F.R.C.S.

DISCUSSION

The President said all would agree that the Society was greatly indebted to Mr. Jocelyn Swan for this address. All present must have admired the ease and fluency with which he delivered it, and without anything more than a very few notes. Such ease could only come from a profound and intimate knowledge of the subject.

Major Doble agreed with the President that all had enjoyed the address enormously.

He agreed with Mr. Swan that the cause of stricture in gonorrhoea cases was not the actual gonorrhoea, but the way in which it was treated, especially in the old days, when silver nitrate in various strengths and other strong antiseptics were employed. One man injected pure carbolic into the urethra, and the result was a solid stricture extending four inches. In former days, too, much time was spent in out-patients' departments in attempts to reduce these strictures. That this was so largely altered was due to the abandonment of such strong astringents. He used to receive a number of stricture cases from one doctor, and he found that this practitioner used to supply a dozen or so medicated bougies to each patient. One patient said he passed his water and then pushed a bougie up his urethra, and then started dancing with pain. His own view was that the bulbous urethra was most often affected with stricture because the antiseptic solution used remained in that part. After injecting a strong antiseptic the man did not feel inclined to pass his water, and therefore he held it as long as he possibly could.

Dr. Wright (Norwich) asked as to the occurrence of fatal air embolism after examining patients with the urethroscope. He knew of two instances—not his own patients—and he had read of others in the journals.

Mr. Wyndham Powell said these cases happened after
urethroscopic examination when stricture was present. He would like to hear whether there was any way of preventing that.

He had not heard any mention of Kollman's dilator. He had found it very valuable, and he had examined patients some years' interval after using it and found no evidence of stricture remained. Two of his patients came twice every year for urethroscopic examination as they had had such a bad time with bougies. He got them fully dilated with Kollman's dilators and no contraction had resulted. Did Mr. Swan see any reason against their use?

Dr. H. C. Semon congratulated the Lecturer on the clear and concise address which he had delivered. The speaker had under care a patient who had the worst condyloma accuminata he had ever seen. A preliminary circumcision had to be carried out to eradicate a mass of the growths on the glands; but the first 1/4 inch of the meatus was also affected, and some form of destructive process seemed to be indicated. Remembering the dangers of caustic applications, he had not gone beyond lactic acid and the actual cautery, with preliminary anaesthetisation with cocaine, and he would like to hear what was the best method of destroying such growths. He had thought of using diathermy.

Dr. Dwyer also congratulated Mr. Swan on his interesting and able discourse. That gentleman mentioned that strictures occurred more frequently in the bulb than in any other part of the anterior urethra. The first two or three inches had such a rich supply of follicles, and was so often the seat of infection, that one would think that part would be more subject to fibrosis than the bulb.

Mr. Hamish Nicol also expressed his appreciation of the excellence of the paper, and agreed that the fact of the urinary stream being twisted was of no significance.

Dribbling after micturition was very common, and when this happened he looked upon the case as possibly one of stricture. In these cases, however, he often found that he was able to pass a full-sized French sound without encountering any obstruction or curing the condition. He thought that the explanation might be that there had been a stricture or some antecedent inflammation, with the result that the urethral tissues at that part had become fibrous and so did not contract and the ejaculator
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urinæ muscle was unable to squeeze out the last drops of urine.

As to dilatation of the urethra and the use of the urethroscope, he agreed with Mr. Swan that before attempting to dilate, it was of the utmost importance to make a urethrosopic examination. By this means one was able to see the stricture and possibly any false passages, also one could judge the size of the sound likely to pass, and one should always commence dilating with the largest sound that would go through.

He regarded the filiform bougie as dangerous; they often caught in follicles and could do much damage. A filiform bougie would often double up and emerge at the meatus.

In dilating strictures his procedure was first to wash out the urethra with oxycyanide of mercury and then to inject 4 per cent. stovaine and allow the patient to hold it in the urethra for about twenty minutes. He then injected the urethra with warm sterile olive oil, as much as it would hold. By this means the urethra was well dilated down to the stricture and lubricated. Sounds were then passed, and with gentle manipulation would often pass through.

Cases in which he had been unable to pass a sound, and where there was retention, were always difficult to deal with, since the bladder must be relieved. If a small sound or catheter could be passed he tied it in and allowed the urine to dribble away, as it often will.

In those cases of stricture where he had been unable to pass a sound he had devised an operation. He had not seen it described. In any case, it was original so far as he was concerned.

During the past five years he had been doing this operation with considerable success.

The bladder is first opened above the pubes and washed out. A bougie is then passed through the internal meatus, and it will very often pass through. It is very much easier than passing it from before backwards, the reason for this being that strictures are very often funnel-shaped with the apex in front, the pressure of urine behind tending to dilate the back portion. The sound is then drawn through the urethra from behind forwards and, the base being conical, it acts as a dilator. Several sounds are passed in this way until the urethra is suffi-
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ciently dilated to admit a fair-sized catheter which is passed from before backwards and tied in. This is left in situ for a few days and then withdrawn and the stricture dilated to full size with the Kollman.

If it was found impossible to pass a sound by this method, one is not much worse off. The procedure then is to pass the sound from behind as far as it will go and proceed to do an external urethrotomy. One has a guide to the urethra beyond the stricture, which is a very great help. Having divided the stricture, the case is treated just as any other case of external urethrotomy.

This method is very much easier than doing an external urethrotomy in the usual way, and the patient is no worse off, and possibly better, since it is easy to wash out the bladder thoroughly.

He recently had two cases in which the prostate had been removed. For a time all had been well, but later retention occurred. A catheter could be passed easily, but without this assistance the patients could not void urine.

In one case he had opened the bladder and cauterised the internal meatus with an idea of removing any oedematous mucous membrane. But the patient was no better in consequence.

He asked Mr. Swan if he had had similar experiences, and if he could explain the condition.

Dr. ANWYL DAVIES also expressed his thanks to Mr. Jocelyn Swan for his paper. With regard to anuria after operation, he did an internal urethrotomy and there was a fatal result due to anuria. He would like to know what Mr. Swan did when he realised that anuria was threatening. Also what were the chances of the man referred to by Mr. Swan, who went to Brazil, as to a recurrence?

Mr. JOCELYN SWAN, in reply, said that one of the great pleasures of giving an address was to be able to answer questions afterwards.

As to the cause of stricture, the chief cause was the use of strong injections in the treatment of gonorrhoea. In the late stage of that disease the treatment should be as mild and simple as possible.

In regard to air embolism, he had not seen a case of that. The only true case of it he knew of was one reported by Mr. Ogier Ward before the Urological Section of the Royal Society of Medicine. The trouble there was, not
so much the distension of the canal, but the latter plus some traumatism, with a breach of surface. It emphasised the need for gentleness.

He had the greatest liking for Kollman's dilator if it was used in its proper place. But he thought all posterior Kollmans ought to be thrown away; he had seen cases of incontinence follow its use. But in the anterior urethra one could dilate well with a Kollman without having to split the meatus.

For the condylomata in the fossa navicularis, mentioned by Dr. Semon, he would use diathermy fully, because the scar after that was a good and supple one; that was also true when diathermy was used for the tongue and the interior of the mouth. If diathermy was not used, one could put in two or three needles of radium, or radon seeds, into the urethra.

He thought that all reasoning as to why the penile urethra was less susceptible to stricture than the bulbous was of necessity speculative. He did not agree with the speaker who said that injections remained in the urethra for a long time, even in the recumbent position.

As to the difficulty of passing a filiform bougie, he was pleased to hear the reference to the injection of warm olive oil into the urethra when dealing with stricture; it was a "tip" often of great use in passing small bougies through a narrow stricture. He never used the stiff whalebone filiform bougie, and if he had difficulty in passing a soft bougie he left it in the urethra and passed another one; he might have half a dozen of them in the anterior urethra. Various lacunæ were blocked up, and then one bougie would slip through. Then the others were taken out and a guide screwed in. The surgeon should not be content with using only one.

Retrograde catheterisation was one of the most useful things. When faced with a ruptured urethra, the first thing was to open the bladder and put in a catheter from the bladder in a retrograde manner, and one could then cut down on the perineum. There was a guide to the proximal urethra, and the urethra could be stitched up in situ. The objection to retrograde catheterisation was that in doing it, especially on a patient with a distended bladder, the latter might be decompressed too quickly.

Anuria after operation, when it occurred, was "a bolt from the blue," and was a terrible situation. The first
thing to do in such a case was to sweat the patient and fill him up with large injections of glucose. This failing, one should decapsulate the kidneys. Even when the latter had been done, anuria patients died, but it gave the only chance.

The man he spoke of who returned to Brazil would certainly have a recurrence, and perhaps, isolated as he was from surgical aid, he would return for further treatment.