

URETHROTOMY BRITISH PRACTICE 1984*

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Urethrotomy is one of the oldest methods of tackling urethral stricture. Desormeaux¹, the so-called "Father of Endoscopy", was the first to undertake direct vision urethrotomy. The technique, however, did not gain wide acceptance until the advent of modern instruments and the introduction of the Sachse optical urethrotome². There have been six recent reports of the use of the Sachse urethrotome in large series from various parts of the UK. This abstract is an attempt to summarize these reports.

The main etiology of strictures treated by urethrotomy in the UK is iatrogenic urethral trauma (Table I), the commonest problem being strictures following trans-urethral resection of the prostate. Inflammatory strictures account for only 13%. Contraindications to optical urethrotomy were (1) meatal stricture, (2) sepsis, fistula

TABLE I

Optical Urethrotomy - Etiology of Strictures 774 patients reported in series from the UK

	¹⁴	²⁵	³⁶	⁴⁷	⁵³	⁶⁸	Overall number	%
Instrumentation/TUR	73	11	49	46	71	79	329	42
Unknown	21	12	28	42	29	5	137	18
Non iatrogenic urethral trauma	15	16	34	23	10	4	102	13
Inflammatory	30	10	26	6	20	7	99	13
After open prostatectomy	32	3	8	17	—	5	65	8
Congenital	10	—	6	3	7	—	32	4
Post urethroplasty	16	—	—	—	—	—	16	2

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or urèthral stone, (3) post-prostatectomy strictures in the region of the external urethral sphincter, and (4) where the urethra has been grossly displaced and there is no hope of being able to incise to normal tissue.

The technique of urethrotomy as described by Smith et al³ has been adopted by most urologists in the UK. The patient is anesthetized using a general anesthetic and is examined in the lithotomy position. The stricture is first visualized, and unless it is known to be very short a ureteric catheter is passed to act as a guide. A new blade is used for each case. The urethrotomy is made in the 12 o'clock position and care is taken to incise until all white scar tissue has separated and viable pink tissue is seen. If the etiology of the stricture is inflammatory the urethrotomy is continued for 2 cms each side of the stricture. At the end of the procedure a size 22 Foley catheter is passed. If there is hemorrhage or extravasation the catheter is left *in situ* for 3 - 5 days. In most cases the catheter can be removed after 24 hours. If the stricture was short then a catheter may not be necessary. It is recommended that the patient practice hydrostatic self-dilatation starting one week after the urethrotomy. The patient is instructed to void urine and then to pinch close the external urethral meatus to interrupt the urine stream. Hydrostatic self-dilatation should continue for a further two weeks. There is also evidence that strictures occur more readily if the urine is infected and therefore any urine infection should be treated prior to urethrotomy. A strong case can be made for the use of prophylactic antibiotics.

The results from the reported series are summarized in Table II. A cure is best regarded as sufficient urine stream so that the patient no longer requires dilatation or hospital attendance. It is not desirable or necessary to try to achieve a perfect urethrogram! 50% of patients will require more than one urethrotomy before a cure is achieved but a cure becomes less likely with increasing numbers of urethrotomies.

TABLE II
Optical Urethrotomy - Results
774 Patients Reported in Series from the UK

References	No. of Patients	No. of Urethrotomies	No further treatment	Improved
Gaches et al ⁴	197	322	81%	
Desmond et al ⁵	52	52		49%
Chilton et al ⁶	151	265	50%	
Stone et al ⁷	137	222		66%
Smith et al ³	137	311	91%	
Pain & Collier ⁸	100	162	56%	

The results reported by Smith et al³ are exceptional, and there is conflicting opinion in the United Kingdom about whether in general the results from urethrotomy will be better than those from bouginage. If after 3 - 6 adequately performed urethrotomies the stricture remains then alternative management should be considered. The good reported results mean that optical urethrotomy has replaced urethral bouginage as the commonest treatment for urethral strictures in the UK, but as yet there has been no prospective evaluation to compare urethrotomy with bouginage.

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