

TREATMENT OF URETHRAL STRICTURES CURES BOTH OBSTRUCTIVE AND STORAGE VOIDING SYMPTOMS

Hypothesis / aims of study

We evaluated the effects of treatment for urethral stricture disease on storage and voiding symptoms using the comprehensive, validated Lower Urinary Tract Symptom Score (LUTSS) which includes validated subscores for voiding, storage, incontinence, and overactive bladder.

Study design, materials and methods

From April 2010 to September 2014, 210 men were treated for urethral strictures by a single surgeon. Of these, 40 completed the 17-question LUTSS prior to and after treatment. In addition to the clinical history variables recorded included: preoperative and postoperative maximum urinary flow rate (Qmax), post-void residual (PVR), voided volume (VV), stricture length and location, and Purohit-Blaivas stricture stage. Comparative analysis of LUTSS subscores (voiding, storage, incontinence, and overactivity) were performed with Wilcoxon-Rank Sum test.

Results

The median age of men was 54 (interquartile range-IQR 35, 70). Questionnaires were completed preoperatively and at a median of 5.6 months (IQR 3.8, 9.5) postoperatively. Stricture location included: bulbar (62.5%), membranous (15%), fossa navicularis (5%) and pendulous urethra (2.5%). Median stricture length was 3.5 cm (IQR 2.5, 4.5). Ten percent of patients (n=4) had prior pelvic radiation. Seventeen patients had excision and primary anastomotic urethroplasty, 12 buccal grafts, 4 urethrotomy/dilations, 2 meatoplasties, and 4 had flaps. The median Purohit-Blaivas urethral stage was 3 (3,3). All men experienced significant improvement in urinary flow rates, post void residuals, and all subscores of the LUTSS. Preoperatively, 25/40 patients had clinically overactive bladder (OAB subscore >8), while 26/40 reported a OAB subscore < 8 postoperatively. Following urethroplasty, there was a 44% median decrease in OABSS and no patient reported worsening symptoms. Incontinence subscores were significantly improved following treatment. (Table 1)

Interpretation of results

Surgery for urethral strictures comprehensively treats all voiding and storage symptoms in men.

Concluding message

Most men with preoperative OAB and strictures can expect resolution of OAB following treatment.

	Preoperative *	Postoperative *	P-value* Wilcox
Median Qmax (mL/sec)	7 (3, 13)	22 (10.25, 33.75)	<0.001
Median PVR (mL)	119 (51, 230)	7.5 (0, 99.5)	0.001
Median Voided Volume (mL)	152 (94, 263)	293 (197, 441.25)	<0.001
Median LUTSS Total +	28 (17, 32.5)	9.5 (4, 18.5)	<0.001
Median Voiding LUTSS Subscore	11 (8, 13)	2.5 (1, 6.75)	<0.001
Median Storage LUTSS Subscore	12 (6, 19)	4 (3, 7.75)	<0.001
Median Incontinence LUTSQ Subscore	3 (1, 5.25)	2 (1,3)	<0.001
Median OAB LUTSQ Subscore	12.5 (7.75, 16.25)	5 (3, 8.75)	<0.001

Table 1 – Change in preoperative to postoperative parameters following anterior urethroplasty

Disclosures

Funding: n/a **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** IRB approved **Helsinki:** Yes **Informed Consent:** Yes