

THE IMPACT OF URETHROPLASTY ON VOIDING SYMPTOMS AND SEXUAL FUNCTION

Hypothesis / aims of study

We aim to determine the effect of urethroplasty for urethral stricture disease on both voiding symptoms and sexual function.

Study design, materials and methods

A retrospective evaluation of adult male patients undergoing urethroplasty for urethral stricture disease was conducted. All data were collected from an IRB-approved urethroplasty database at our institution. Pre- and post-operative scores for the American Urological Association Symptom Index (AUASI), Incontinence Symptom Index (ISI) and Sexual Health Inventory for Men (SHIM) scores were obtained and compared. Relevant clinical and demographic characteristics were also evaluated.

Results

A total of 186 patients underwent 222 urethroplasties during the 15 year study period (1995-2008). The median age at the time of surgery was 45 years (range 18-87). Urethroplasties were performed for 205 anterior urethral strictures (included meatus, fossa navicularis, penile, bulbar and panurethral), and 17 posterior (membranous, prostatic) urethral strictures. The surgical approach was buccal graft augmented in 73 (32.9%) cases, primary anastomotic in 69 (31.1%), staged approach in 54 (24.3%), urethroplasty for hypospadias in 14 (6.3%) and other approaches in 12 (5.4%). The table below illustrates the change AUASI total and bother scores, ISI severity and bother scores, and SHIM scores after urethroplasty. The median change in AUASI total score was 11 and AUASI bother score was 3, whereas no change was seen for either ISI score or SHIM. There was no significant difference in any score change when the patients were stratified by age (<55 versus ≥55 years).

	Median Preop score (range)	Median Postop score (range)	Median change in score* (range)	Median change <55 years (range)	Median change ≥ 55 years (range)
AUASI total [n=95]	20 (0-35)	4 (0-31)	11 (-14-34)	10 (-14-34) [n=65]	12 (-12-32) [n=30]
AUASI bother [n=94]	5 (0-6)	1 (0-6)	3 (-2-6)	3 (-2-6) [n=63]	3 (-1-6) [n=31]
ISI severity [n=81]	1 (0-31)	0 (0-26)	0 (-10-19)	0 (-8-19) [n=41]	0 (-10-16) [n=20]
ISI bother [n=81]	0 (0-8)	0 (0-4)	0 (-3-8)	0 (-3-8) [n=41]	0 (-2-7) [n=20]
SHIM [n=33]	15 (1-25)	14 (1-25)	0 (-22-20)	0 (-20-11) [n=24]	0 (-22-20) [n=11]

*positive score indicates clinical improvement from preoperative value

Interpretation of results

Urethroplasty improves lower urinary tract symptoms as measured by 2 separate validated indices. Furthermore, urethroplasty does not appear to have a significant effect on continence or sexual function. In our population, age has minimal impact urinary and sexual outcomes after urethroplasty.

Concluding message

Patients can expect a meaningful improvement in bothersome voiding symptoms after urethroplasty for urethral stricture disease.

Specify source of funding or grant	none
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	University of Michigan Institutional Review Board
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes