

Dorsal onlay buccal mucosa urethroplasty for female urethral stricture: a single-center series

PEYRONNET B, SUSSMAN R, MALACARNE D, PALMEROLA R, GRANIERI M, ZHAO L, ROSENBLUM N, NITTI V, BRUCKER B M

NYU SCHOOL OF MEDICINE

OBJECTIVE

- Dorsal onlay buccal mucosa urethroplasty may be an interesting alternative to the usual vaginal-flap ventral urethroplasty for female urethral stricture with the advantage that it does not cause hypospadiac urethra and could be performed even for long and proximal stricture or in case of poor tissue
- Our aim was to assess the outcomes of dorsal onlay buccal mucosa urethroplasty for female urethral stricture (FUS).

METHODS

All female patients who underwent dorsal onlay buccal mucosa urethroplasty for urethral stricture between 2011 and 2017 at a single academic institution were included in a retrospective study.

The primary endpoint was clinical success defined as any subjective improvement in storage LUTS self-assessed by the patients four weeks after catheter removal.

Pre and postoperative evaluations included an interview with symptoms assessment, a clinical examination, and urinary flow and post-void residual volume (PVR) measurements.

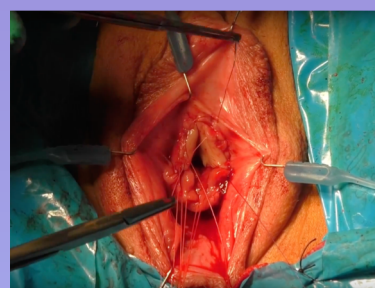
A video-urodynamic (VUD) was systematically performed prior to surgery except when the stricture could not be intubated by VUD catheter.

RESULTS

- Ten patients were included
- Eight cases were performed as outpatient procedures (80%) and two patients were discharged on postoperative day 1.
- Two patients experienced postoperative complications (20%) all of which were minor (i.e. Clavien grade ≤ 2): 1 urinary tract infection (Clavien grade 2) and 1 sinusitis (Clavien grade 2).
- One patient reported de novo stress urinary incontinence postoperatively (10%) requiring two pads/day.
- The mean PVR decreased at 1 month postoperatively compared to baseline, but did not reach statistical significance (from 140.5 to 48 ml; $p=0.12$). The mean maximum urinary flow rate increased significantly at 1 month (from 8.2 ml/s to 20.4 ml/s; $p=0.007$). All reported improvement at 1 month postoperatively (100%).
- After a median follow-up of 6 months, one recurrence was observed (10%), which occurred 8 months after surgery and was managed with a single balloon dilation with no further recurrence after 6 additional months of follow-up. All patients remained improved at last follow-up visit.

	Patients' characteristics N=10
Median age (years)	62.5 (34-84)
Median length of stricture (cm)	0.5 (0.2-1.8)
Stricture location	
Proximal urethra	2 (20%)
Mid urethra	7 (70%)
Distal urethra	1 (10%)
Cause if stricture	
Iatrogenic	5 (50%)
Post-traumatic	2 (20%)
Unknown	3 (30%)
Failure of previous urethroplasty	2 (20%)

	Before buccal mucosa urethroplasty	1 month after buccal mucosa urethroplasty	p-value
Mean Qmax (ml/s)	8.2 (± 3.7)	20.4 (± 8.9)	0.007
Mean PVR(ml)	140.5 (± 214.4)	48 (± 59.9)	0.12
Urinary Incontinence			0.99
Yes	0 (0%)	1 (10%)	
No	10 (100%)	9 (90%)	
Change in LUTS			NA
Improved	NA	10 (100%)	
Unchanged		0 (0%)	
Worse		0 (0%)	



CONCLUSIONS

- Dorsal onlay buccal mucosa urethroplasty for FUS appears to provide satisfactory perioperative and short-term functional outcomes with low risks of de novo urinary incontinence and recurrence.