

RE-DO FEMALE URETHROPLASTY WITH VENTRAL INLAY ORAL MUCOSA GRAFT RECONSTRUCTION

Introduction

Female urethroplasty is the definitive management of female urethral stricture disease. Various techniques have been described; including the use of both grafts (vaginal/oral mucosa) and flaps. However, the ideal approach in a recurrent stricture after primary reconstruction is unclear due to paucity of data regarding female urethroplasty failures. We present our technique of salvage oral mucosa graft urethroplasty after failed primary reconstruction.

Design

Nineteen women were treated with urethroplasty between 2011 and 2015 for urethral stricture disease. With a mean follow-up of 28.4 months (range:3-60) 2 (10.5%) women presented with failure. One woman was successfully managed with urethral dilatation 4 months after urethroplasty, while the other woman required re-do urethroplasty. She was a 53 year-old female with a history of urethral caruncle excision 3 years before initial urethroplasty. She had distal urethral stricture that did not accept a 5 Fr catheter, and her peak urinary flow rate (Qmax) was 4 ml/sec. She was treated with ventral inlay "labium minus" graft urethroplasty in our centre in 2012. Six months after surgery, she presented with recurrent lower urinary tract symptoms (LUTS) and a Qmax of 5 ml/sec. Internal urethrotomy was done at postoperative 8th month for a short stricture diagnosed at the proximal anastomotic site. This resolved her symptoms for 10 months. One year later, she required salvage urethroplasty due to worsening LUTS.

Results

Ventral urethra was exposed through an anterior vaginal wall incision. A 1 cm. long stricture was identified at mid- to distal urethra, and incised at six o'clock towards the healthy proximal urethra. The ventral urethral defect was augmented using oral mucosa graft as "inlay", then periurethral tissues were re-approximated in the midline. Urethral catheter was removed after 2 weeks. Eighteen months after re-do urethroplasty, her Qmax was 28 ml/sec and she had persistent de-novo stress incontinence (1-2 pads/day).

Conclusion

Management of recurrence after female urethroplasty is challenging. Minimally invasive treatments may be an initial option, but a number of patients will ultimately require re-do urethral reconstruction. It is currently unknown which approach (ie. dorsal vs. ventral urethral approach) and which technique (ie. grafts vs. flaps) will provide the best chance for cure in re-operative female urethroplasty. Ventral inlay oral mucosa graft urethroplasty described herein may represent a viable option. The need for simultaneous anti-incontinence surgery during re-do urethroplasty warrants further investigation

Disclosures

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