

Vaginal Flap Urethroplasty for Wide Female Stricture Disease

Alchiede Simonato,* Virginia Varca, Marco Esposito and Giorgio Carmignani

From the Clinica Urologica "L. Giuliani," Ospedale San Martino, Genova, Italy

Purpose: As in men, female urethral stricture disease is often treated with repeat urethral dilation or internal urethrotomy but not always with good results. In nonresponsive cases surgical treatment may be useful but only a few cases are reported in the literature. We present our single institution experience with urethral reconstruction in 6 patients using an alternative vaginal inlay flap technique inspired by the Orandi technique.

Materials and Methods: We treated 6 women with urethral stricture. In 5 patients stricture involved the entire middle and distal urethra, and in 1 it also involved the proximal urethra with bilateral hydronephrosis. Patients underwent urethral reconstruction using a vaginal flap with a lateral vascular pedicle that maintains the vascular axis. The flap was partially de-epithelialized to favor tissue cicatrix formation where the sutures are placed and avoid fistula formation.

Results: Mean followup was 70.8 months. Normal micturition was achieved after catheter removal in all patients. Post-void residual urine was measured postoperatively in 3 patients. One patient had significant post-void residual urine and required intermittent self-catheterization. The remaining 5 patients required no additional treatment.

Conclusions: Using the vaginal wall to reconstruct large segments of the female urethra is simple and appears to have good results. Our technique preserves the vascular axis of the flap and protects the sutures. More contributions to the existing literature are needed before any further conclusions can be drawn.

Key Words: urethra, urethral stricture, vagina, surgical flaps, reconstructive surgical procedures

URETHRAL stricture disease occurs in approximately 2.7% to 8% of women presenting with lower urinary tract symptoms and surgical treatment is still a matter of debate.¹ As in men, stricture disease is often treated with repeat urethral dilation or internal urethrotomy but these procedures do not always produce good results. The etiology may be infection, prior dilation, difficult catheterization with subsequent fibrosis, urethral surgery or trauma.² In nonresponsive cases surgical treatment may be useful but only a

few cases are reported in the literature.³ Vestibular flap urethroplasty seems indicated to treat the meatal or distal urethra⁴ while dorsal, ventral free graft buccal or vaginal mucosa is used to reconstruct the middle and proximal urethra depending on stricture complexity.⁵

In 1989 Blaivas reported the first favorable results using the vaginal flap as an alternative to the bladder flap for partial or total urethral loss.⁶ Blaivas emphasized that this technique is easily executed, presents few

Abbreviations and Acronyms

PVR = post-void residual urine

Submitted for publication February 1, 2010.

* Correspondence: Clinica Urologica "L. Giuliani," Ospedale San Martino, pad. 12, Università degli Studi di Genova, L.go Rosanna Benzi, 12, 16132 Genova, Italy (telephone: +393356444088; FAX: +39010354004; e-mail: alchiede.simonato@unige.it).