

Resection of the Urethral Plate and Augmented Ventral Buccal Graft in Patients with Long Obliterative Urethral Strictures

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ABSTRACT

The treatment of long urethral strictures is based on the use of buccal mucosa graft (BMG). Postoperative failures commonly occur in patients with the obliterative strictures, and the long augmented part of the urethra which is prone to fibrotic changes.

Combined approach with the resection of the obliterative part of the urethral plate located in the bulbar urethra, together with the ventral placement of BMG was performed in 36 patients. Etiology of the stricture was: idiopathic in 19/36 (52.7%), iatrogenic in 14/36 (38.8%), and other causes in 3/36 (8.3%). Mean length of the stricture was 7.2 ± 1.6 cm, and the length of the augmented graft 4.5 ± 1.2 cm (due to resected urethral plate) so, the single BMG was enough in 25/36 (69.4%) patients. The medium postoperative follow up was 24 months (20-28 months) months. Success of the surgery was defined as no need for additional surgery neither dilatation. Cystoscopy was performed 4-6 months after the surgery and additional follow up with IPSS and uroflowmetry.

Overall success was achieved in 31/36 (86.1%) patients. Mean postoperative IPSS was 9.5 ± 2.1 in these patients. Complications were according to Clavien Dindo scale: grade II in 11/36 (30.5%-infection, orchialgia, scrotal pain), grade III in 4/36 (11.1%- fistula) and grade IV in 5/36 (14.5% - restenosis). Postoperative $Q_{max} = 13.2\pm1.2$ ml/s. Bell shaped curve was present in 14/36(38.8%).

Our results suggest that overall success rate is similar to the expected values for BMG surgery, and the number of the grafts used is lower due to reduced stricture length.

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EDITORIAL COMMENT

The surgical treatment of urethral stricture diseases is continually evolving. In recent years there has been continuous discussion with regard to the etiology, location, length, and management of extensive urethral stricture disease. Various tissues such as genital and extragenital skin, buccal mucosa, lingual mucosa, small intestinal submucosa, and bladder mucosa have been proposed for urethral reconstruction (1). Although various surgical techniques are available for the treatment of long anterior urethral stricture, no one technique has been identified as the method

of choice. Basically, in patients with a wide, soft urethral plate and no fibrous spongiosum tissue, use of a graft is preferred. Contrary, in patients with a narrow, rigid urethral plate and fibrous spongiosum tissue, use of a flap is preferred. Although a buccal mucosa seems to be better than a skin graft, the difference in success rate is so slight (82% vs. 78%) that it does not justify the use of a buccal mucosa as a first choice (2). In this Video, the authors presented one of the procedures for long urethral stricture. Scientific and technical demonstration of their procedure looks excellent. The authors are to be congratulated on this complex and precize work.

REFERENCES

- 1. Djordjevic ML. Graft surgery in extensive urethral stricture disease. Curr Urol Rep. 2014;15:424.
- 2. Barbagli G, Morgia G, Lazzeri M. Retrospective outcome analysis of one-stage penile urethroplasty using a flap or graft in a homogeneous series of patients. BJU Int. 2008;102:853-60. Erratum in: BJU Int. 2008;102:1772.

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