

### **13-Year Experience Using a New Technique of Ventral and Dorsal Buccal Grafting for One-Stage Repair of Obliterative Urethral Strictures**

**Introduction and Objective:** Obliterative urethral strictures of the anterior urethra not amenable to excisional repair require circumferential tissue transfer. We describe our 13-year experience using ventral buccal grafts quilted to the corpus spongiosum in addition to dorsal buccal grafts to achieve circumferential tissue transfer for obliterative urethral strictures.

**Materials and Methods:** A total of 15 patients with a mean age of 49 years (range 5 to 67) and a mean stricture length of 6.5 cm underwent urethroplasty. The corpus spongiosum was incised dorsally. Buccal mucosa was quilted to the ventral aspect of the corporal bodies to reconstruct the dorsal aspect of the urethra. Where there was obliterative stricture disease, additional buccal mucosa was quilted to the corpus spongiosum in continuity with the urethra, and the onlay repair was then completed.

**Results:** All 15 patients are free of obstructive symptoms with patent urethras with a mean follow-up of 47.9 months (range 6 to 157). There was one stricture recurrence, which was successfully treated with direct vision internal urethrotomy (success 93%, and 100% after one urethrotomy). To our knowledge, this technique has not been previously described. Others have described dorsal and ventral graft repairs using a ventral approach. One advantage of the ventral approach is that no significant mobilization of the corpus spongiosum is required. Disadvantages of a ventral approach may include compromise of blood flow within the spongy tissue as the dissection extends through both the ventral and dorsal corpus spongiosum. In addition, the corpus spongiosum is less robust distal to the proximal bulb, especially if there is any atrophy or spongiofibrosis. This may limit the ability of the two halves of the incised corpus spongiosum to cover the graft if the goal is a 30 French caliber. Moreover, when tissue is used to cover the ventral graft, this may provide less a less reliable graft fixation than the quilting of the graft to the recipient bed.

**Conclusions:** Dorsal and ventral buccal grafting for long urethral strictures appears to be an excellent option to repair long anterior urethral strictures that include obliterative disease.