

Pan-anterior Urethral Stricture Repaired by Dorsal Onlay Graft Urethroplasty Using Oral Mucosa

Introduction and Objectives: The reconstruction of panurethral strictures, long and complex strictures involving both the pendulous and bulbar urethra, is one of the most difficult problems in urologic surgery. Here we present a case in which a panurethral stricture was successfully repaired by dorsal onlay graft urethroplasty using oral mucosa.

Materials and Methods: A 66-year-old male presented to his local hospital with a chief complaint of urinary retention. An anterior urethral stricture was diagnosed and treated with repeated urethral dilations. After a partial glansectomy treating his squamous cell carcinoma left him with a deformed glans and a meatal stenosis. Retrograde urethrography showed that a long-segment stricture extending from the meatus to the proximal bulbar urethra was diffusely irregularly narrowed, and a voiding cysturethrogram showed that the patient was unable to void because the proximal bulbar urethral was completely blocked. Under general anesthesia the patient was placed in simple low lithotomy position and a midline perineal incision was made. After the anterior urethra was separated from the corpus cavernosum distal to the glans, the urethra was rotated 180 degrees and the stricture was incised along its entire length by extending the urethrotomy distally and proximally. A graft 12 cm long was needed, and the harvest of oral mucosa was started at the inner lip and extended to both cheeks. The ends of the graft were sutured to the proximal apices of the urethrotomy, and the lateral margin of the graft was attached to the margin of the urethral mucosal plate by an interrupted 4-0 polyglactin suture. The meatus and fossa navicularis were reconstructed by placing the oral mucosa graft dorsally and a local penile skin flap ventrally. The edge of oral mucosa graft was spread and fixed to the corpus cavernosum by an interrupted 4-0 polyglactin suture.

Results: Postoperative urethroscopy showed good adaptation of the graft, postoperative retrograde urethrography showed a wide urethral lumen, and voiding cysto-urethrography showed no distention of the posterior urethra. The patient has been stricture-free for 3 years.

Conclusion: Dorsal onlay graft urethroplasty using oral mucosa is effective for repairing pan-anterior urethral strictures.

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