



Surgery in Motion

Lingual Mucosal Graft Urethroplasty for Anterior Urethral Reconstruction

Alchiede Simonato^{a,*}, Andrea Gregori^b, Carlo Ambruosi^a, Fabio Venzano^a,
 Virginia Varca^a, Andrea Romagnoli^a, Giorgio Carmignani^a

^a“Luciano Giuliani” Department of Urology, University of Genoa, Genoa, Italy

^bDepartment of Urologic Surgery, “Luigi Sacco” University Medical Center, Milan, Italy

Article info

Article history:

Accepted January 7, 2008

Published online ahead of
 print on January 16, 2008

Keywords:

Buccal mucosa

Free grafts

Hypospadias

Oral mucosa

Tongue

Transplants

Urethra

Urethral stricture

Urethroplasty

Abstract

Objective: Evaluate the use of lingual mucosal graft (LMG) in anterior urethral strictures.

Methods: From January 2001 to December 2006, 29 men (mean age, 48.5 yr) with anterior urethral strictures underwent graft urethroplasty with LMG. The mean length of stricture was 3.6 cm. Patients with bulbar, penile, or bulbopenile strictures received one-stage dorsal free graft urethroplasties. In patients with failed hypospadias repair we performed a two-stage urethroplasty. Criteria for successful reconstruction were spontaneous voiding with no postvoid residual urine and no postoperative instrumentation of any kind. Clinical assessment included the donor site morbidity. **Results:** Mean follow-up was 17.7 mo. One-stage bulbar and penile urethroplasties without meatal involvement had an 81.8–100% success rate. Bulbopenile urethroplasties were successful in 60% of the cases, whereas one-stage urethral reconstructions in patients with meatal involvement were successful in 66.6%. The two cases of two-stage urethral reconstruction with LMG and buccal mucosal graft after failed multiple hypospadias repairs were unsuccessful. The overall early recurrence rate was 20.7%. Patients with the graft harvested from the tongue reported only slight oral discomfort at the donor site and difficulty in talking for 1 or 2 d.

Conclusions: The mucosa of the tongue, which is identical to the mucosa of the rest of the oral cavity, is a safe and effective graft material in the armamentarium for urethral reconstruction with potential minor risks of donor site complications. LMG may be used alone for short strictures (<5 cm) or in combination with buccal mucosa when longer grafts are needed.

© 2008 European Association of Urology. Published by Elsevier B.V. All rights reserved.

* Corresponding author. Ospedale San Martino, Clinica Urologica “L. Giuliani”, pad. 12, Università degli Studi di Genova, L.go Rosanna Benzi, 12, 16132 Genova, Italy.
 Tel. +393356444088; Fax: +39010354004.
 E-mail address: alchiede.simonato@unige.it (A. Simonato).