

Penile and Urethral Reconstructive Surgery

Jonathan E. Kiechle, MD^a, Nathan Chertack, BS^b,
Christopher M. Gonzalez, MD, MBA^{a,*}

KEYWORDS

- Urethral stricture • Urethral diseases • Reconstructive surgical procedures
- Urethral sphincters

KEY POINTS

- Penile and urethral reconstructive surgical procedures are used to treat a variety of urologic diagnoses.
- Urethral stricture disease can lead to progressive lower urinary tract symptoms and may require multiple surgical procedures to improve patient's symptoms.
- Male stress urinary incontinence is associated with intrinsic sphincter deficiency often-times associated with radical prostatectomy.
- Men suffering from urethral stricture disease and stress urinary incontinence should be referred to a urologist because multiple treatment options exist to improve their quality of life.

INTRODUCTION

Penile and urethral reconstructive surgery is a broad area of urologic care that encompasses the surgical treatment of urethral stricture disease and voiding dysfunction, erectile dysfunction (ED), urologic issues after cancer treatment, and many other diseases of the male external genitalia and lower urinary tract. This article discusses various surgical options for the treatment of urethral stricture disease and male stress urinary incontinence (SUI).

A urethral stricture begins as a scar within the corpus spongiosum surrounding the anterior urethra (urethral meatus, fossa navicularis, penile urethra, bulbar urethra). Contraction of this scarred tissue results in narrowing of the urethral lumen and can lead to lower urinary tract symptoms (**Fig. 1**). A bladder neck contracture (BNC) or urethral stenosis refers to narrowing of the bladder neck or posterior urethra

Disclosures: None of the authors have any disclosures or conflicts of interest.

^a Urology Institute, University Hospitals Cleveland Medical Center, Case Western Reserve University School of Medicine, 11100 Euclid Avenue, Cleveland, OH 44106, USA; ^b Case Western Reserve University School of Medicine, 11100 Euclid Avenue, Cleveland, OH 44106, USA

* Corresponding author. Urology Institute, University Hospitals Cleveland Medical Center, Case Western Reserve University School of Medicine, 11100 Euclid Avenue, Cleveland, OH 44106.

E-mail address: Christopher.Gonzalez@UHhospitals.org

Med Clin N Am ■ (2017) ■-■

<https://doi.org/10.1016/j.mcna.2017.10.007>

medical.theclinics.com

0025-7125/17/© 2017 Elsevier Inc. All rights reserved.

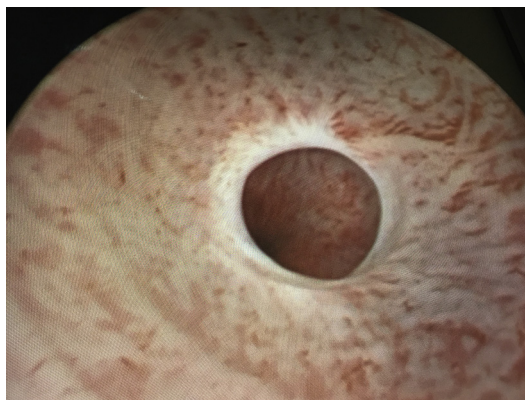


Fig. 1. Cystoscopic view of urethral stricture.

(membranous urethra, prostatic urethra) respectively usually as a result of prior surgical intervention or pelvic trauma. Urethral strictures and BNCs both present significant treatment challenges for urologists and can necessitate multiple surgical procedures to keep patients voiding without substantial difficulty. These procedures vary from endoscopic dilation of the urethra to formal urethral repair requiring excision of the stricture or the use of autologous grafts for urethral augmentation.

The incidence of urethral stricture disease is not well defined, but a recent analysis of Medicare data found the prevalence of male urethral stricture disease to be 0.9%.¹ Many underlying conditions can lead to the development of urethral strictures, including pelvic trauma, lichen sclerosus, previous lower urinary tract instrumentation, and sexually transmitted infections. Unfortunately, for many patients, it is not possible to determine the underlying cause of their stricture disease because the factor inciting the development of spongiofibrosis may occur many years before the onset of lower urinary tract symptoms.

Male SUI is associated with intrinsic sphincter deficiency and can occur following radical prostatectomy or may be associated with pelvic trauma, congenital conditions, and other surgical procedures. A recent meta-analysis of incontinence outcomes following robotic radical prostatectomy reported an overall incidence of SUI of 4% to 31% at 12 months following surgery.² The treatment of male SUI following radical prostatectomy is also highly variable, ranging from observation to the use of external clamps to the implantation of prosthetic devices to improve continence.

URETHRAL DILATION AND DIRECT VISION INTERNAL URETHROTOMY

Indications/Contraindications

Urethral dilation and direct vision internal urethrotomy (DVIU) offer minimally invasive approaches to the management of urethral stricture disease in appropriately selected patients. Dilation may be the procedure of choice for patients who cannot safely undergo general anesthesia, have limited life expectancy, or present emergently in acute urinary retention. However, the repeated use of urethral dilation is contraindicated in patients appropriate for urethroplasty who present with recurrent stricture disease.³

DVIU may be considered in patients with symptomatic bulbar urethral strictures less than 2 cm in length.³ DVIU is not recommended for strictures in the penile urethra, and repeated treatment with DVIU following an initial recurrence is unlikely to provide durable long-term success.^{4,5} Importantly, both urethral dilation and DVIU are less

Download English Version:

<https://daneshyari.com/en/article/8762218>

Download Persian Version:

<https://daneshyari.com/article/8762218>

[Daneshyari.com](https://daneshyari.com)