Urethral Stricture Management –
AUA Guidelines

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Urethral Stricture Guidelines

• Systematic peer-reviewed literature review
• 1990 – 2015
• 250 articles selected
• Evidence strength rating applied:
  • A (high quality evidence, high certainty)
  • B (moderate quality evidence, moderate certainty)
  • C (low quality evidence, low certainty)
• Evidence-based statements of Strong, Moderate or Conditional Recommendations based on risks and benefits
• Clinical Principles, Expert Opinions
Urethral Stricture Guidelines

• Diagnosis / Initial Management (1 - 6)
• Dilation / Internal Urethrotomy / Urethroplasty (7 – 12)
• Anterior Urethral Reconstruction (13 – 22)
• Pelvic Fracture Urethral Injury (23 – 25)
• Bladder Neck Contracture / Vesicourethral Stenosis (26 – 28)
• Special Circumstances (29 – 31)
• Postoperative Follow-up (32)

• MOSTLY “C”, Expert Opinion, and Clinical Principles
Diagnosis and Initial Management – Key Points

• If non-urgent intervention planned, determine length and location of stricture (cystoscopy, RUG, US urethrography)

• May utilize endoscopic management (dilation, DVIU) or SP tube for retention of urgent catheterization

• May place SP tube prior to definitive urethroplasty in patients dependent on urethral catheter or on CIC
Dilation / Internal Urethrotomy – Urethroplasty – Key Points

• May offer dilation, DVIU or urethroplasty for initial treatment of short (<2cm) bulbar strictures [CR, “C”]
• May perform either dilation of DVIU as endoscopic treatment for stricture
• May safely remove catheter within 72 hrs after uncomplicated dilation or DVIU
• In patients who are not candidates for urethroplasty, may recommend self-cath after DVIU to maintain patency
• Should recommend urethroplasty (instead of repeated endoscopic intervention) for recurrent anterior urethral stricture if fail dilation or DVIU
• Refer patients for urethroplasty if lack expertise
Anterior Urethral Reconstruction - Key Points

• May initially treat meatal or fossa navicularis stricture with dilation or meatotomy
• Should offer urethroplasty for recurrent meatal or f.n. strictures
• Should offer urethroplasty for penile urethral strictures, given high recurrence rate with endoscopic management
• Should offer urethroplasty as initial treatment for long (>2cm) bulbar strictures, given low success rate of DVIU
• May offer perineal urethrostomy as long-term treatment option as alternative to urethroplasty
• Should use oral mucosa as first choice when using grafts for urethroplasty
• Should not perform tubularized grafts or use hair-bearing skin for substitution urethroplasty
Buccal Mucosa Augmentation

BMG pulled inside

Two BMG quilted
Full length augmentation via perineal incision
Alternative to buccal mucosa – split thickness skin grafts – for long defects, staged
Pan-urethral Strictures

- Strictures that involve multiple areas of the urethra or the entire (anterior) urethra

- Etiologies include:
  - iatrogenic and other trauma
  - Infectious/inflammatory disease
  - Lichen sclerosis / BXO

Management options for Panurethral Stricture?

- Periodic dilation / self cath
- Single stage or multistage reconstruction
- Perineal urethrostomy
- Creation of catheterizable abdominal stoma
- Permanent catheter (SP tube)
- Supravesical diversion
Pelvic Fracture Urethral Injury – Key Points

• Use RUG, VCUG or endoscopic assessment for preop planning of delayed urethroplasty

• Should perform delayed urethroplasty rather than endoscopic procedures after urethral obstruction/obliteration due to PFUI

• Definitive urethral reconstruction after PFUI should be pursued only after major injuries stabilize and safe positioning is appropriate
Delayed Posterior Urethroplasty

*Posterior Urethral Disruptions*

- Expose the bulbomembranous urethra
- Mobilize the anterior urethra distally
- Transect the urethra and excise *all* scar
- Spatulate both urethral ends
- Perform a tension-free anastomosis
- Stent the repair
Anastomotic Repair
Bladder Neck Contracture / Vesicourethral Stenosis – Key Points

• May perform dilation, bladder neck incision or TURBNC after endoscopic prostate procedures.

• May perform dilation, bladder neck incision or transurethral incision for post-prostatectomy VU anastomotic stricture

• May perform open reconstruction for recalcitrant stenosis of the bladder neck or post-prostatectomy VU anastomotic stenosis
Pre-op RUG + VCUG
PFUI
Special Circumstances

• In men requiring CIC (for NGB, etc.), may offer urethroplasty for urethral strictures causing difficulty with self-catheterization

• May perform biopsy for suspected LS (BXO), and must perform biopsy if urethral cancer is suspected

• For LS (BXO) - proven stricture, should not use genital skin for reconstruction
Postoperative Follow-up

- Clinicians should monitor urethral stricture patients to identify symptomatic recurrence following dilation, DVIU or urethroplasty