

Perineal Urethrostomy for Complex Urethral Strictures

Long-Term Patient-Reported Outcomes from a Reconstructive Referral Center and a Scoping Literature Review

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Background

- - Complex anterior urethral strictures remain challenging.
- - Multiple failed urethroplasties and comorbidities limit options.
- - Perineal urethrostomy (PU) offers a salvage route for perineal voiding.
- - Few data exist on long-term functional and patient-reported outcomes.

Objective

- To evaluate long-term functional success and patient-reported outcomes after definitive PU at a reconstructive referral center, supplemented by a scoping literature review.

Methods

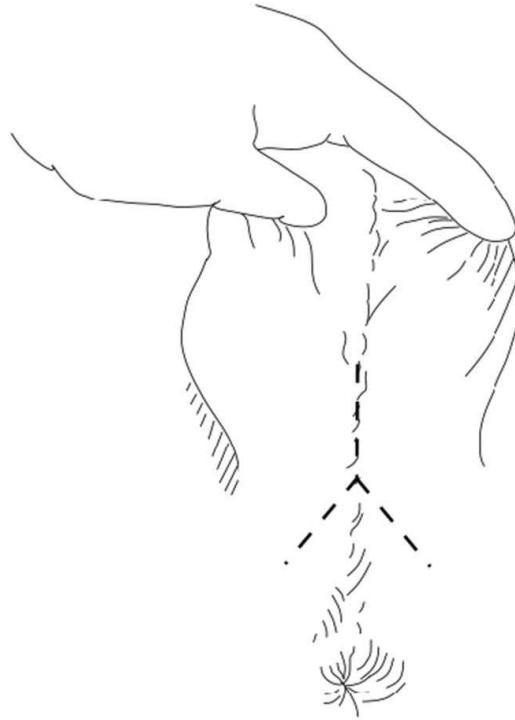
- - Retrospective cohort (2009–2023), n=76 males (median age 73).
- - Objective: retreatment-free survival.
- - Subjective: validated PROMs (LUTS, ICIQ-UI SF, IIEF-EF, MSHQ-Ej, ICIQ-S).
- - Median follow-up: 55 months.
- - IRB-approved (PV4123, Hamburg).

Surgical Technique

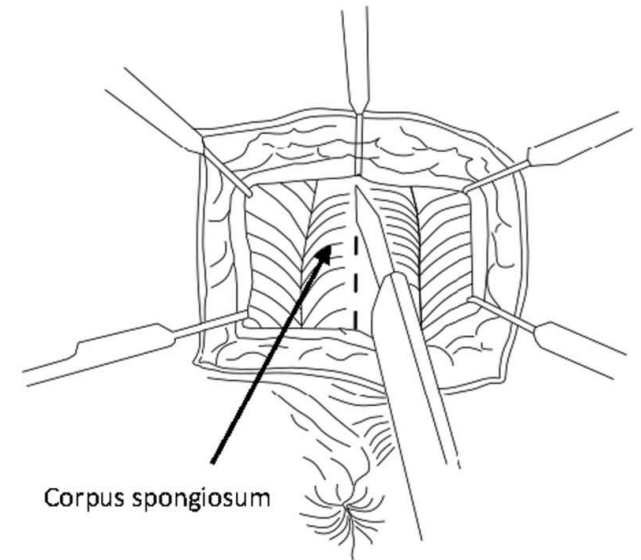
- - Inverted Y-shaped perineal incision.
- - Ventral bulbar urethrotomy (~4 cm) and skin-to-mucosa suturing.
- - Formation of oval neomeatus and Y-scar.
- - Based on technique by Myers JB et al., 2011.

Surgical Technique

A



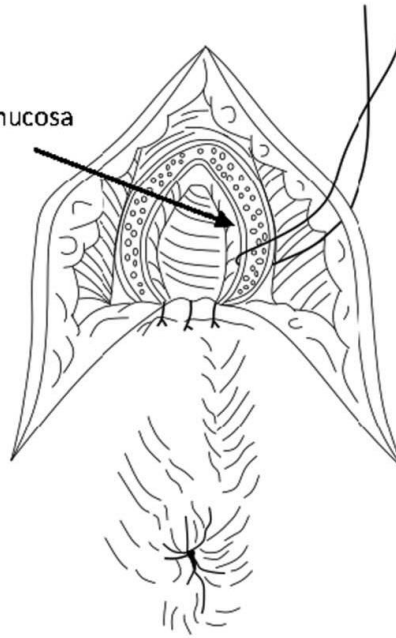
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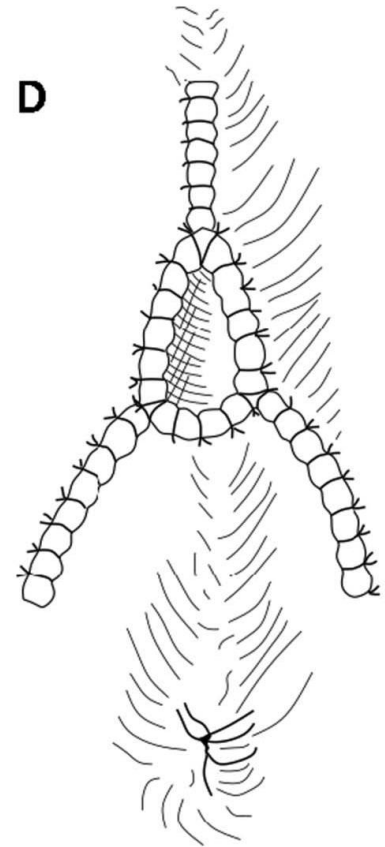
Surgical Technique

C

Urethral mucosa



D



Baseline Characteristics

- • Median age: 73 (IQR 63–77)
- • Iatrogenic etiology: 55%
- • Prior urethral interventions: 82%
- • Median stricture length: 3 cm
- • Multi-segment strictures: 76%

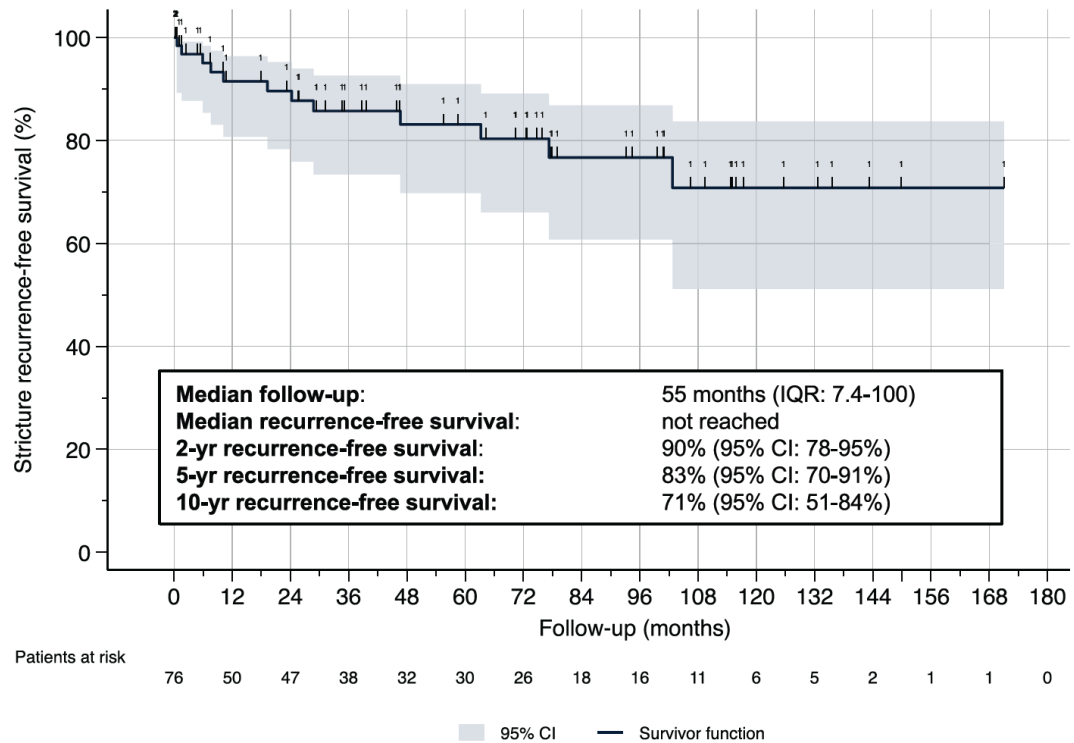
Functional Outcomes

- - Functional success: 84% (retreatment-free).
- - Recurrence: 10% @2y, 17% @5y, 29% @10y.
- - Complications: minor 9%, major 2.6%.

Patient- Reported Outcomes (PROMs)

- • LUTS score (0–24): median 4 → mild symptoms
- • ICIQ-UI SF (0–21): median 0 → excellent continence
- • IIEF-EF (1–30): median 3.5 → variable sexual function
- • MSHQ-Ej (1–35): median 21
- • ICIQ-S (0–24): median 21 → high satisfaction (9/10)

Retreatment free survival



Scoping Literature Review

- - 18 studies (1,273 patients).
- - Reported success rates: 51–95%.
- - Only 5 studies used validated PROMs.
- - Major heterogeneity in definitions and patient selection.

Discussion - Comparative Success and Function

- - PU achieved high long-term success (83–90%) comparable to urethroplasty.
- - Particularly effective in patients with multi-segment strictures.
- - In staged urethroplasty, patency often <80% in similar populations.
- - Indicates strong role of PU as durable alternative.

Discussion - Functional and Sexual Outcomes

- - Voiding and continence scores similar to younger urethroplasty patients.
- - PU did not significantly impair erectile function.
- - Bimodal distribution suggests two subgroups of sexual outcomes.
- - Only 5% reported subjective erectile decline.

Discussion – Patient Satisfaction and Clinical Implications

- - Overall satisfaction exceptionally high (ICIQ-S median 21).
- - Low morbidity and short operative time.
- - PU may be preferable for elderly or comorbid patients.
- - Highlights need for prospective PROM-based trials to refine selection.

Conclusion

- - PU provides durable, satisfying outcomes for complex anterior strictures.
- - High continence and voiding scores with acceptable sexual outcomes.
- - Should be considered a first-line option in older or high-risk patients.