

Long-Term Outcomes of Permanent Urethral Ligation for Incontinent Men with End-stage Urethra

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INTRODUCTION

- The artificial urinary sphincter (AUS) is the gold standard for severe stress urinary incontinence (SUI)
- Urethral tissue damage due to multiple AUS cuff erosions, prior radiation, or otherwise complex reconstructive history may preclude AUS replacement or urethral restoration
- Alternatives such as formal supravescical diversion and/or bladder neck closure are associated with significant morbidity and mortality

OBJECTIVE

- To further evaluate our experience with permanent urethral ligation (PUL) with chronic suprapubic tube (SPT) drainage for men with persistent severe SUI and a frail, end-stage urethra

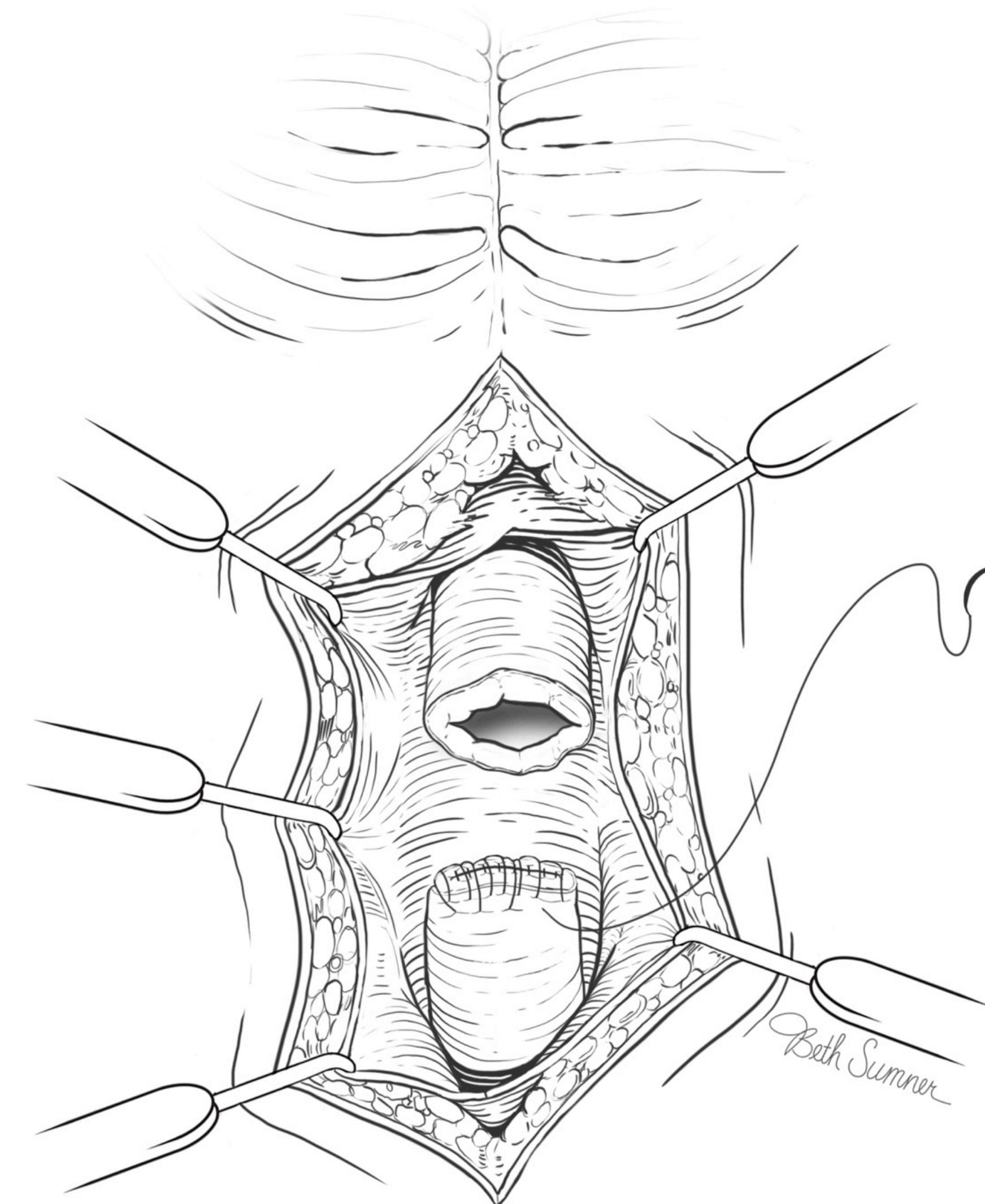
METHODS

- Retrospective chart review of PUL cases from 2014-2020
- End-stage urethra: two or more prior failed urethral interventions and lacking adequate healthy urethra to allow subsequent AUS cuff placement
- Quality of life assessments via telephone:
 - Michigan Incontinence Symptom Index (M-ISI)
 - Patient Global Index of Improvement (PGI-I)

Table 1: Patient Characteristics

	PUL (n=20)
Mean age (SD)	75 (± 8.2)
Prior urethral surgeries	
AUS	18 (90%)
History of cuff erosion	18 (100%)
Multiple erosion events	10 (56%)
Average no. erosions (range)	2 (1-3)
Dilation of stricture	9 (45%)
Urethroplasty	6 (30%)
Urethral Sling	3 (15%)
Urethral Stent	2 (10%)
Radiation therapy	5 (25%)

Figure 1: View of dissected bulbar urethra after transection, with the distal urethral stump left open to allow drainage from the surgical site



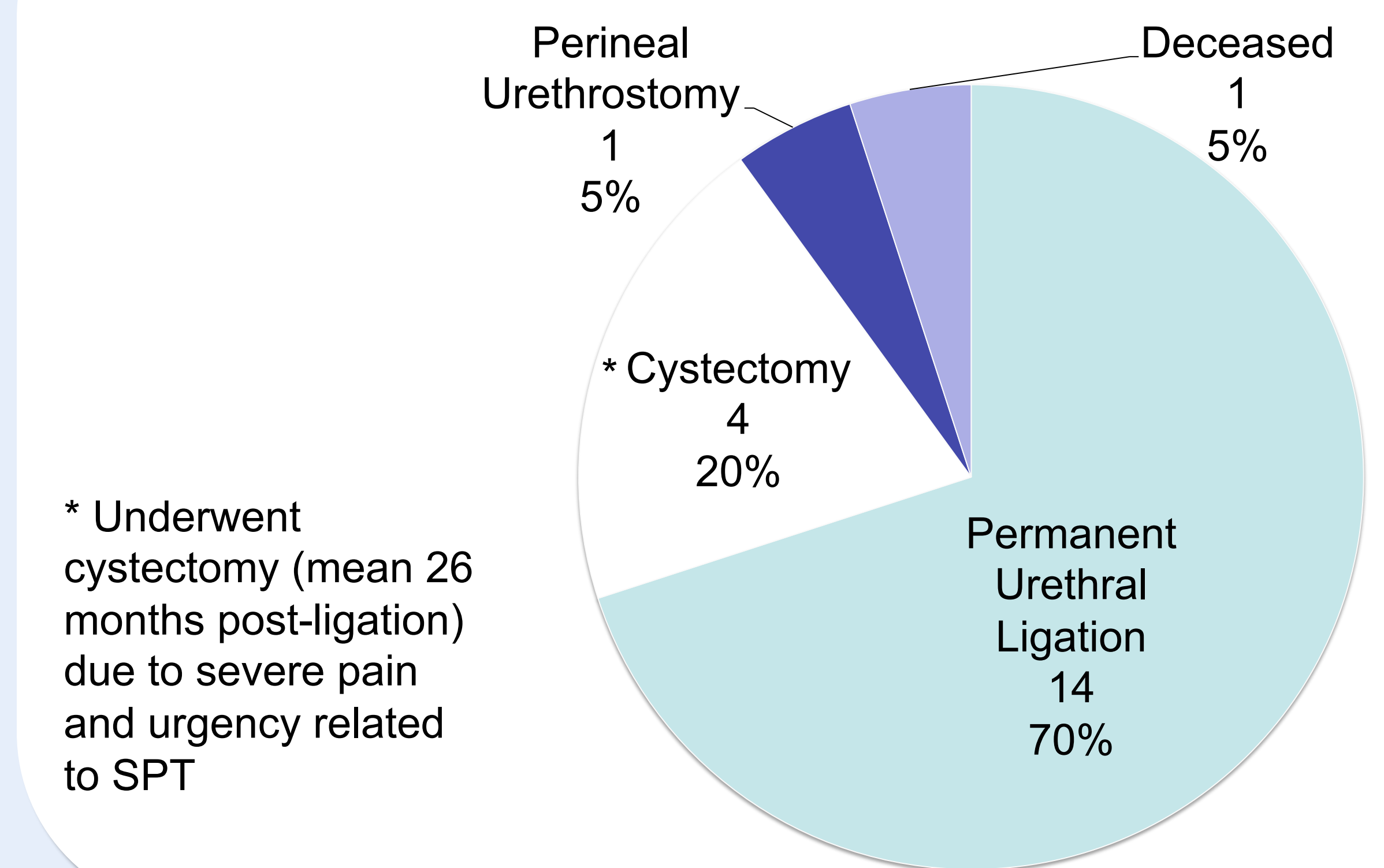
RESULTS

18/20 (90%) men were continent at a median follow-up of 27.5 months (IQR 15.6 – 48.8)

- 15 (75%) after initial surgery
- 3 (15%) after repeat ligation (mean 4 months post-op)
- 1 currently scheduled for repeat ligation
- 1 elected perineal urethrostomy at outside hospital

90-day Complications	11 (55%)
Bladder spasms	8 (40%)
Urinary tract infection	3 (15%)
Cellulitis	2 (10%)
Abscess	2 (10%)
Urethral recanalization	4 (20%)

Figure 2: Long-term Management



Quality of Life (QOL) Questionnaire Results

13/14 men still alive and managed by SPT were reached

M-ISI

Average severity score (0-32) 1.4 (range 1-8)
Average bother score (0-8) 0.6 (range 0-4)

PGI-I

Improvement in QOL 13/13 (100%)

Would recommend PUL to others 13/13 (100%)

CONCLUSIONS

- PUL with chronic SPT drainage is a viable option that can restore continence and improve quality of life
- Patients should be counseled that cystectomy may often be required