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PD35-12 MULTI-INSTITUTIONAL ANALYSIS OF SURGERY FOR LICHEN SCLEROSUS INDUCED PENILE URETHRAL STRICTURES: CONFIRMING SINGLE-STAGE URETHROPLASTY AS THE TREATMENT STANDARD

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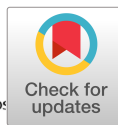
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Altered Patterns of Basal Epithelial Marker Expression in Urethral Lichen Sclerosis

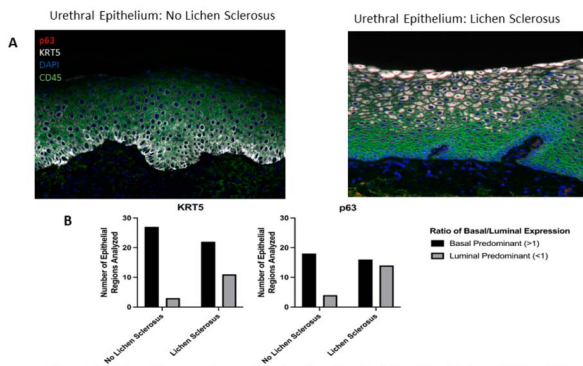


Figure 1. Multiplexed fluorescent immunohistochemistry of urethra in Non-LS and LS tissue. (A) Blue=DAPI, green=CDH1, white=KRT5, red=p63. Relative abundance of KRT5 and P63 was dichotomized based on ratio of basal/luminal expression into greater or less than one. LS tissues were significantly more likely to have luminal predominant expression of both KRT5 and P63 (P=0.03)(B)

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PD35-12

MULTI-INSTITUTIONAL ANALYSIS OF SURGERY FOR LICHEN SCLEROSUS INDUCED PENILE URETHRAL STRICTURES: CONFIRMING SINGLE-STAGE URETHROPLASTY AS THE TREATMENT STANDARD

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INTRODUCTION AND OBJECTIVE: The optimal treatment of penile urethral strictures related to lichen sclerosis (LS) is controversial. At the heart of the debate lies the issue of whether or not a single-stage reconstruction should be employed over a 2-stage repair to minimize the number of surgeries performed. Additionally, depending on patient preference, a urethrostomy is a viable option. The objective of this study is to compare single-stage urethroplasty, staged urethroplasty and perineal urethrostomy for the treatment of LS related penile urethral strictures in a multi-institutional analysis.

METHODS: A retrospective analysis was performed on patients undergoing urethroplasty for LS induced isolated penile urethral strictures (LSE S2b/S2c) at 9 different institutions. Meatal strictures <2 cm in length and panurethral strictures (>10 cm) involving the bulbar urethra were excluded from study. Patients were reconstructed using either a single-stage approach, a staged technique or perineal urethrostomy. The primary outcome measure was urethral patency at routine follow-up cystoscopy without stricture intervention thereafter and secondary outcomes were 90-day complications, and adverse change in sexual dysfunction, chordee or urethrocutaneous fistula. Outcomes were compared using a Cox regression or a two-tailed Chi-square test when appropriate.

RESULTS: 231 patients were analyzed with an average age of 51.6 years and mean stricture length of 5.5 cm. Prior endoscopic treatments were performed in 197 patients (85.3%) with a mean of 3.0 prior endoscopic treatment attempts. Overall, 127 (55.0%) were managed with single-stage BMG urethroplasty, 44 (19.0%) with staged BMG, and 60 (26.0%) with perineal urethrostomy. At a mean follow-up of 68.6 months, overall stricture free rate was 81.0% (n=187). Clavien ≥ 2 90-day complications occurred in 17 patients (9.8%). de novo erectile dysfunction occurred in 13 patients (5.6%), chordee in 7 (4.8%), and urethrocutaneous fistula in 3 (3.4%). On Mantel-Cox testing, there was no difference in stricture recurrence between techniques (15.7% vs. 27.3% vs. 20.0%; p=0.60) and no difference in 90-day complications (8.0% vs. 15.6% vs. 9.8%; p=0.45), erectile dysfunction (7.1% vs. 4.5% vs. 3.3%; p=0.55), chordee (6.7% vs. 0.0% vs. 3.6%; p=0.33), and urethrocutaneous fistula (2.2% vs. 9.1% vs. 0.0%; p=0.17). On Cox regression analysis, obesity

(MI>35) was associated with a higher rate of stricture recurrence (Hazard Ratio 2.31, 95%CI 1.28-4.17, p=0.006, 30.1% vs. 13.9%) but not 90-day complications (Odds Ratio 1.00, 95% CI 0.33-2.99, p=0.99, 9.8% vs. 9.8%). No other clinical variable was associated with stricture recurrence or 90-day complications.

CONCLUSIONS: Favorable outcomes of single-stage techniques for the treatment of lichen sclerosis induced penile urethral strictures, confirm single-stage urethroplasty as the treatment standard for LS induced penile urethral strictures especially when considering the decreased number of surgeries the patient is exposed to.

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