



#170 NOVEL IN SITU TUNICA ALBUGINEA CIRCUMFERENTIAL URETHRAL WRAP FOR AUS REIMPLANTATION IN PATIENTS WITH PRIOR EROSION

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PURPOSE

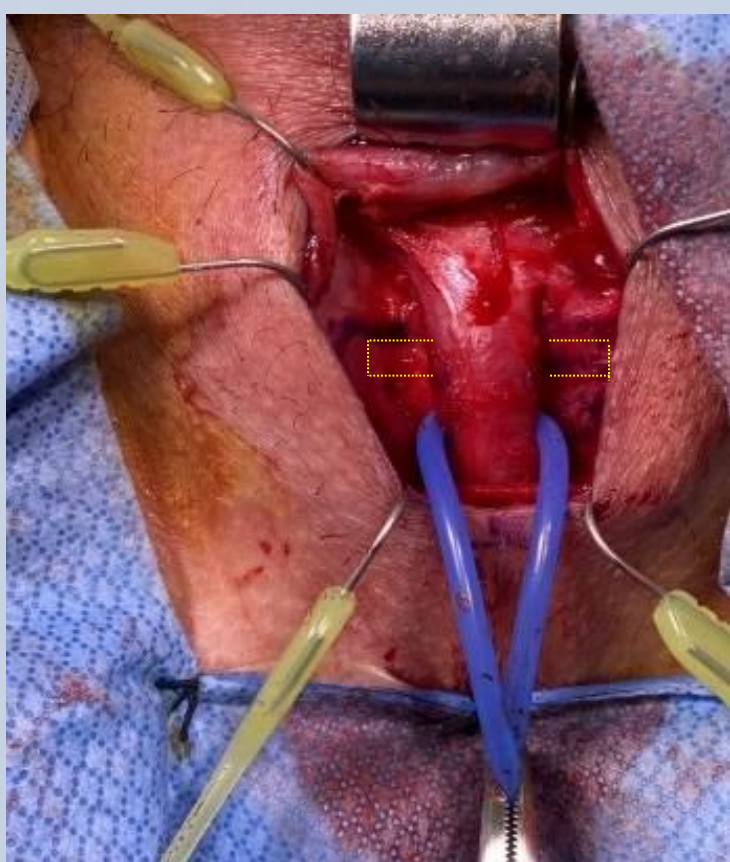
In the past, it was commonly assumed that the dorsal urethra is at highest risk for AUS erosion. However, the most common sites of cuff erosion are in fact ventral and lateral, and least commonly dorsal. Additionally, following early success, the overall device survival is not increased in patients undergoing **transcorporeal cuff placement**, nor is the site of erosion different compared to bulbar urethral AUS implantation.

Thus it has been suggested that techniques aimed at bolstering the entire urethral circumference – such as a urethral wrap with xenograft or allograft may reduce urethral erosion. We describe a novel in situ tunica albuginea urethral wrap procedure to protect and bolster the urethra in high risk patients that can avoid the need for expensive donated tissue.

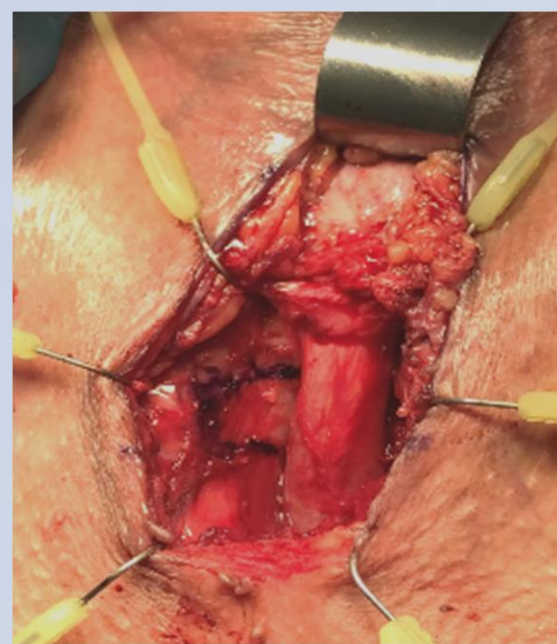
METHODS

We performed a retrospective analysis of patients with ISD undergoing an in situ tunica albuginea circumferential urethral wrap at the time of AUS re-implantation. Records were reviewed for patient age, prior surgery, radiation severity of incontinence, intraoperative and postoperative complications and continence (pad use) at most recent follow-up.

Surgery: The ventral and lateral urethra were cleared of the bulbospongiosus muscle for 3 cm. Along the laterally situated corpora cavernosa, a 2x1cm rectangle of tunica albuginea was outlined and incised superiorly, inferiorly and laterally on either side of the urethra, and dissected medially to cover the lateral aspect of the bulbar urethral.



The tunica wings were then sutured together in the midline with 2-0 SAS, creating a circumferential tunica albuginea wrap.

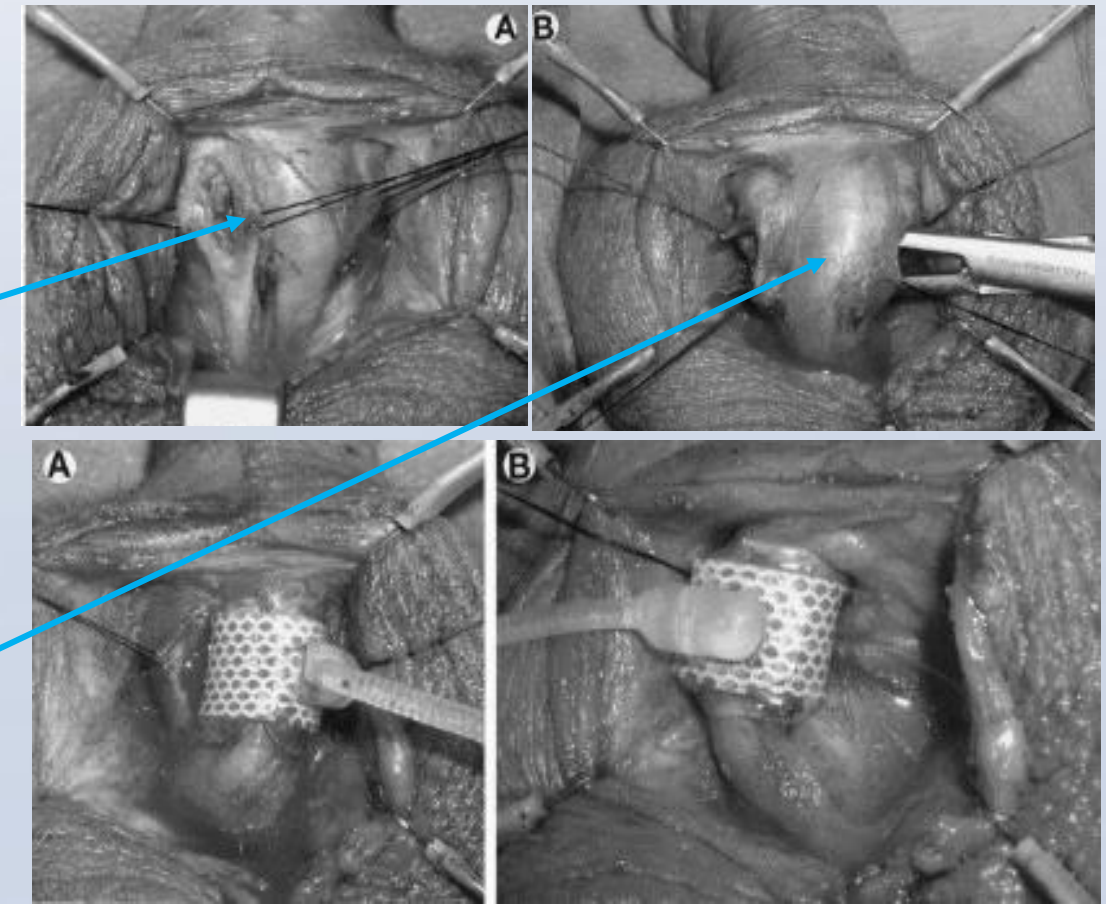


AUS cuff of appropriate size was then placed in standard fashion around the urethra and its wrap.

Transcorporeal AUS:

Tunica albuginea protects dorsal urethra only

Ventral and lateral urethral still at risk



RESULTS

Six patients underwent surgery over a 2-year period, by a single surgeon. All were high risk for urethral erosion based on prior AUS erosion (range 1-3 prior erosions). Three of 6 had a history of adjuvant XRT. One patient had a functioning IPP in place. Avg age was 75 years (67-83), avg pad use prior to surgery was 6.2 ppd (3-15). Urethral cuff size was 4.0 cm in 1, 4.5 cm in 4 and 5.0 cm in 1 patient. All cases were done as outpatient surgeries.

Avg follow-up was 12.8 months (4-29), avg pad use at last follow-up was 0.4 ppd (0-1). Three patients had urinary retention and were discharged home with a 12 Fr Foley catheter. One had a successful void trial on POD 2, 1 did self catheterization for 5 days and then resumed voiding. One went to an outside ER after deciding against self catheterization and had a 16 Fr catheter placed (without informing us), and developed a device infection at 4 weeks post-op. He had his AUS explanted without difficulty. The tunica albuginea wrap had broken down in the midline and the wings were separated, and there was a urethral erosion from the catheter.

CONCLUSIONS

The early clinical experience demonstrated the safety and short-term efficacy of the in situ tunica albuginea circumferential urethral wrap as a salvage treatment of AUS revision in men with fragile urethra secondary to prior urethral erosion with or without XRT. By protecting the lateral and ventral urethra, where erosion is most common, we expect longer-term follow-up to demonstrate a lower rate of urethral erosion. The risk of urinary retention is high, and suprapubic tube should be considered at the time of surgery. Penile prosthesis is not a contra-indication to this surgical approach

Advantages of the in situ tunica albuginea urethral wrap

Avoids the need for expensive “bottled” xenograft or allograft.

Protects the lateral and ventral urethra in addition to the dorsal urethra.

Minimizes the risk of iatrogenic urethral injury intra-operatively.

Bulks the urethra to facilitate coaptation of the urethra which may otherwise be too small to adequately coapt with a 3.5 cm or 4.0 cm cuff.

May reduce long term urethral erosion rate in high risk patients.