

OBJECTIVES

Revision surgeries after AUS implantation are a challenging topic. There are multiple salvage techniques for implantation of artificial urinary sphincter in high-risk patients with fragile urethra. Using the corpora cavernosa flaps was first described by Chouhan et al¹. We performed a transcorporal cuff placement adding bilateral tunica albuginea flaps in 5 patients at the highest risk for urethral erosion.

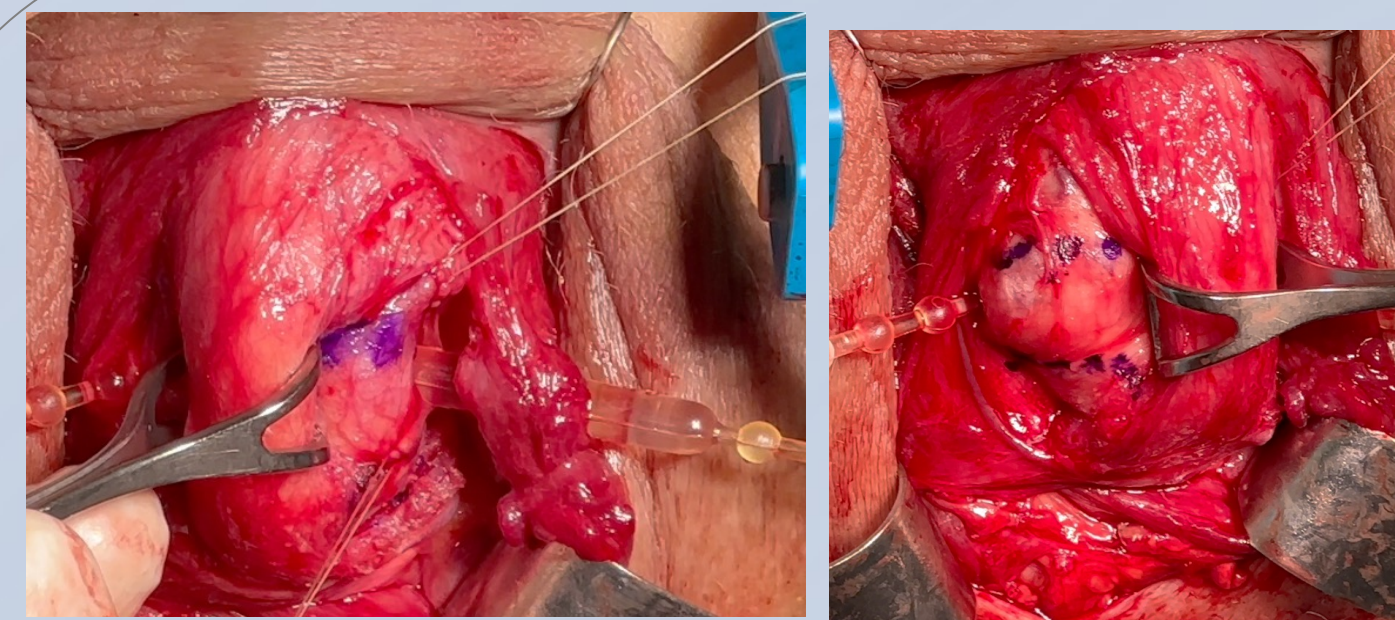
METHODS

We used a perineal approach, the bilateral tunica albuginea flaps were harvested and sutured in the midline covering ventral and lateral urethra, the dorsal surface was also reinforced as the cuff was placed transcorporally. The aim was to cover the whole circumference of the urethra with extra tissue to provide more protection in case of fragile urethra due to history of urethral cuff erosion or urethroplasty.

We included the data of 5 patients between Oct. 2022 and Feb. 2023. All the patients had ≥ 2 previous cuff erosions, in addition 2 had a history of urethroplasty. All patients complained about severe stress urinary incontinence and consequently reduced quality of life. The procedure was performed as a salvage technique after all the patients have been given comprehensive information.

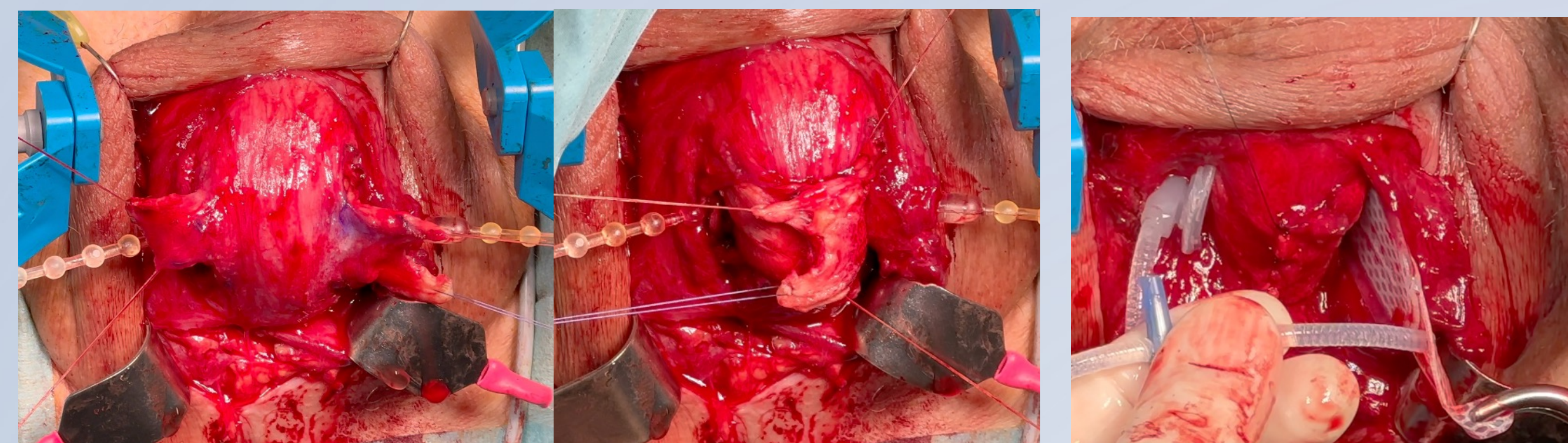
RESULTS

In all cases the surgery was successfully completed, no intra-operative complications were reported. In 2 cases with ≥ 3 previous urethral cuff erosions, the cuff was placed around the urethra but was left open in situ to not compromise the healing process of the urethra. In these 2 cases the cuff was closed after 4 weeks in a second short procedure. The AUS was activated after 6-8 weeks. The continence results were satisfactory, 3 of 5 were socially dry and the remaining 2 patients reported using 2 pads in 24hours.



Square shaped flap are marked on the left and right corpus

Dissection of corporal bodies and midline septum posterior to the urethra to the contralateral side was performed for complete mobilization of both flaps.



Both right and left flap are harvested.
Flaps are circumferentially wrapped around the ventral urethra.
Flaps are approximated using monofilament suture (4.0); AUS-Cuff is placed transcorporally.

CONCLUSIONS

Dealing with urethral complications after AUS implantation remains a challenging topic in reconstructive urology. Using the tunica albuginea flap may provide a salvage procedure in complex cases after urethral cuff injuries. However long-term results must be awaited, and this technique should be reserved to expert centers.

REFERENCES

1. Couhan J. et al; transcorporal Artificial Urinary Sphincter- The Gullwing Modification