

## MANAGEMENT OF A RECURRENT URETHROVAGINAL FISTULA WITH A DIVERTICULUM CONTAINING A STONE

### Introduction

Urethrovaginal fistulas are rare and can be difficult to manage surgically. [1] In this video, we describe our surgical approach for the management of a patient with a recurrent urethrovaginal fistula with a diverticulum containing a stone.

### Design

The patient is a 51 year old who initially presented with vaginal bleeding and was found to have a diverticulum with a urethrovaginal fistula on double-balloon urethrogram. She underwent a urethrovaginal fistula repair but developed a recurrent fistula within three months of her surgery. An MRI of her pelvis demonstrated a 1 cm mass consistent with a stone on the right side of the proximal urethra with a persistent fistula. The patient was counselled and agreed to undergo another attempt at a vaginal repair.

We began her surgery by using a Maddhuri (Cook Medical) catheter transurethrally to identify the fistula tract vaginally. Once the opening to the fistula was clearly seen vaginally, we made an inverted U-shaped incision on the anterior vaginal wall with care taken to ensure that the edge of the incision lay distal to the fistula tract. We then dissected the anterior vaginal epithelium away from the underlying tissue to mobilize the fistula tract and access the diverticulum and stone. A lacrimal probe was inserted into the fistula tract vaginally help identify it during our dissection. We followed the fistula tract into a larger opening which was a diverticulum extending into the right periurethral space. The area was further opened with a scalpel and the stone was visualized and removed with forceps. The stone measured approximately 1 cm by 0.5 cm. The remainder of the epithelialized fistula tract was gently dissected free and excised. We close the dead space and urethral defect with multiple layers of interrupted 4-0 and 3-0 Vicryl sutures. The edge of the inverted U vaginal epithelium was trimmed, removing the fistula tract. This final layer was closed with interrupted figure-of-eight Vicryl to reapproximate the vaginal epithelium. No further leakage was noted vaginally and a cystoscopy was performed at the end of the procedure to ensure ureteral patency and no evidence of urethral injury.

### Results

The patient had an indwelling catheter for 7 days post operatively. She then underwent a voiding trial and voided spontaneously. She is currently doing well and not having any further leakage.

### Conclusion

This video demonstrates an unusual case of a recurrent urethrovaginal fistula with a diverticulum containing a stone which likely contributed to the failure of her initial repair. The repair was accomplished with careful dissection and meticulous closure. The patient is currently doing well and happy with the results of the procedure.

### References

1. Pushkar D, Dyakov V, Kosko J, Kasyan G (2006) Management of urethrovaginal fistulas. Eur Urol 50:1000–1005.

### Disclosures

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