

URETHRAL TAPE EROSION MANAGED WITH THE HOLMIUM LASER

Introduction

This movie details our technique for the endoscopic management of eroded mesh in the urethra using the holmium laser. The technique is demonstrated in 2 separate cases. A, 46 year old female, who underwent a TVT sling for SUI, presented with urethral pain, dyspareunia and recurrent UTI's. Erosion of the mesh was noted in the distal urethra between the 7 and 9 o'clock positions. In the second more challenging case, a 58 year old female, presenting with similar symptoms than the first patient, was found to have 2 segments of MiniArc slings eroded in the urethra between the 2 and 9 o'clock positions, one in the midurethra, and one more proximally.

Design

Key technical aspects include using a 17 French Wolff female cystoscope (urethroscope) and a 0° lens. This female cystoscope, which in contrast to the standard cystoscope does not have a beak at the end, allowed for good visualization of the mesh segment in the urethral lumen as well as precise positioning of the 365 micron laser fiber over the mesh fibers. Continuous flow irrigation was used to allow for maximal distension of the urethra. A 5 French open ended ureteral catheter (Pollack Catheter) was used to stabilize the holmium laser fiber during the procedure. Using holmium settings of 1.2 joules and 10 hertz, the mesh fibers were melted until the mesh retracted below the mucosal surface. At the end of the procedure, no mesh was visible. When bleeding was encountered, the holmium was used to achieve hemostasis. Both patients were sent home with an indwelling foley catheter for 3-4 weeks. An outpatient office cystoscopy was performed one month post-operatively to evaluate urethral healing and to look for possible residual mesh exposure.

Results

Although early in our experience, we report the two cases in the movie and a third case managed in a similar fashion for an eroded mesh located from 2 to 6 o'clock in the proximal urethra. All 3 cases involved erosion of mesh into the urethral lumen after placement of a synthetic midurethral sling. In all 3 cases, the eroded mesh was successfully eliminated, thereby avoiding a more invasive and complex reconstructive urethral surgery. Follow-up office cystoscopy in all 3 cases confirmed successful removal of the mesh with adequate surface healing and without evidence of urethral stricture or scarring. Continence rate has been preserved too, although long-term data is not available yet.

Conclusion

This video indicates that the holmium laser can offer a rather minimally invasive approach to the excision of eroded mesh into the urethra with adequate short term results. Although technically inviting, we feel that this procedure should be reserved for tertiary care centers dealing with a high volume of mesh complications. This technique should be considered by reconstructive surgeons in their armamentarium along with vaginal or open repairs of eroded urethral tape.

Disclosures

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