A COMPLICATED URETHRAL DIVERTICULECTOMY REPAIRED WITH HUMAN DERMAL GRAFT

Introduction
Urethral diverticulum are rare occurring in 1-6% of women (3). A urethral diverticulum is defined as the presence of a sac opening from the urethra (1). It might be suspected by a lump or tenderness along the line of the urethra or external urethral discharge on urethral massage. Diagnosis is complicated by the variety of symptoms. The classic triad of symptoms include dysuria, postmicturition leakage and dyspareunia. Diagnosis is often delayed by a mean interval of 5.2 years(3). Magnetic resonance imaging has become the modality of choice in preoperative diagnosis and evaluation of a urethral diverticulum. An MRI has been shown to identify 100% of patients who underwent a diverticulectomy in several studies. Other imaging modalities include transvaginal ultrasound, computer tomography, voiding cystourethrography, double-balloon urethrogramy and urethroscopy. Undiagnosed urethral diverticula can lead to recurrent urinary tract infections, calculus formation and rarely malignancy. Complicated cases may require a vaginal graft or transposition of a labial fat pad. Complicated by insufficient periurethral tissue, inadequate blood supply or a large amount of dead space after the diverticulectomy dissection. The literature describes a case of porcine small intestinal submucosal xenograft instead of a Martius graft. Human dermis is not commonly used in these cases.

Design
The video demonstrates a transvaginal surgery for a woman with a urethral diverticulum complicated by a calculus using a human cadaveric dermis graft. Informed consent was obtained.

Results
The urethral diverticulum was carefully dissected and each layer was preserved. The calculus was removed and the layers were reapproximated. The human dermal graft was used to reinforce the repair and was placed over the reapproximated endopelvic connective tissue. The urethral diverticulum was repaired without sequelae. Human dermal graft offers an alternative to the traditionally described Martius graft.

Conclusion
Human dermal graft serves as an acellular matrix for tissue ingrowth and offers the advantage of less dissection and potential blood loss than creating a Martius graft from the labial fat pad. Previous literature by Lee et al suggests a role of porcine small intestinal submucosal xenograft during diverticulectomy. This video abstract suggests that acellular human dermal graft may offer an alternative treatment when a graft is needed due to insufficient periurethral tissue or a large dead space after the diverticulectomy dissection.

Early diagnosis of a urethral diverticulum can prevent sequelae such as calculus formation. Physicians should have a low index of suspicion for this rare condition.

References

Disclosures
Funding: None Clinical Trial: No Subjects: NONE