Hypothesis / aims of study
Lower urinary tract fistulas are often associated with obstetrical trauma or surgery. Urethrovaginal fistulas are rare but can be caused by a variety of pelvic surgery, including urethral diverticulectomies, urethral slings, and anterior colporrhaphies. Other etiologies include radiation and pressure necrosis. Management of these fistulas may involve prolonged drainage, fibrin glue or various surgical treatments. The purpose of this video is to present the case and surgical management of a 50 year old female who was referred to our clinic approximately 10 months after a urethral diverticulum repair followed by a Stamey bladder neck suspension. This patient reported immediate and persistent leakage of urine from the vagina following removal of her suprapubic catheter 6 weeks after surgery. A urethrovaginal fistula could be clearly visualized 2.5 cm from the urethral meatus. Cystoscopically, the opening of the fistula tract could be visualized 1 cm distal to the urethrovesical junction just right of the midline. Our surgical plan was to perform a urethrovaginal fistula repair using the Latzko technique with labial fat pad transposition.

Study design, materials and methods
The patient was taken to the operating room and placed under general anesthesia. A 4-French Fogarty endarterectomy catheter was used to cannulate the fistula tract which was performed with cystoscopic visualization. Hydrodissection of the vaginal epithelium was performed with dilute vasopressin. A circumferential incision was made around the opening of the fistula. The epithelium was carefully dissected off of the underlying fibromuscular layer to mobilize 2.5 cm of tissue circumferentially. The classic method of genitourinary fistula repair calls for the complete excision of the fistula tract with the edges cut until the fresh vascular tissue is identified. However a Latzko technique stipulates that the fistula tract be left in place with no attempt to excise it or the surrounding tissue. We performed a Latzko repair in our patient. Closure over the fistula opening was performed in series of layers using delayed absorbable suture. A labial fat pad was created by making an incision on the medial aspect of the labia majora and dissecting down to the level of the bulbocavernosus muscle to mobilize the underlying fat pad. Care was taken to avoid compromise of the rich blood supply at the inferior aspect of the pedicled graft. The graft was then tunnelled beneath the vaginal mucosa to overlie the area of fistula repair. The fat pad was secured and the overlying epithelium was then reaproximated. At the completion of the procedure the patient had a transurethral and suprapubic catheter in place for temporary drainage of the bladder.

Results
Postoperatively the patient was seen at regular intervals. She reported that she was no longer leaking urine from the vagina. Pelvic examination revealed well healed vaginal epithelium. The labial fat pad harvest site was also noted to be well healed with an excellent cosmetic result.

Conclusion
Urethrovaginal fistulas can be effectively treated with the Latzko technique. A labial fat pad can be used to fill potential dead space, amplify distance between the fistula and the vaginal incision closure, and provide excellent blood supply to the surgical area.

References

Specify source of funding or grant None
Is this a clinical trial? No
What were the subjects in the study? HUMAN
Was this study approved by an ethics committee? No
This study did not require ethics committee approval because This is a case report. Informed and written consent was obtained from the patient to present her case. The patient has been completely de-identified.
Was the Declaration of Helsinki followed? Yes
Was informed consent obtained from the patients? Yes