Transvaginal Natural Orifice Transluminal Endoscopic Uterosacral Ligament Hysteropexy: An Innovative Approach for Treatment of Uterine Prolapse

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ABSTRACT

Study Objective: Transvaginal natural orifice transluminal endoscopic surgery (vNOTES) was previously described as a feasible approach to perform several procedures including hysterectomy followed by uterosacral ligament suspension [1,2]. Approaching the cul-de-sac with vNOTES while the uterus is intact allowing access to the uterosacral ligaments. This enables attainment of apical support by placing sutures on the ligaments, shortening them, and reinforcing their attachment to the cervix. The objective of this video is to demonstrate a surgical technique for vNOTES uterosacral ligament hysteropexy (ULH).

Design: Stepwise demonstration of the technique with narrated video footage. This video report is part of an institutional, investigational review board−approved study.

Setting: Academic tertiary referral center.

Interventions: This video presents our team’s vNOTES technique for ULH in a woman aged 37 years (gravida 3 para 3) who presented with pelvic organ prolapse quantification stage 3 symptomatic uterine prolapse. The patient requested uterine prolapse repair surgery while retaining the uterus. After performing a posterior colpotomy and entering the posterior cul-de-sac, the alexis and then the GelPOINT V-path transvaginal access platform (Applied Medical, Rancho Santa Margarita, CA) were placed into the vagina. Three trocars were inserted into the port. We used a 10-mm scope with a 30˚-angle view. The instruments included a needle driver and a clinch grasper. The next step was to identify the uterosacral ligamentous structures. Once identified, 2 absorbable vicryl sutures and 1 nonabsorbable Ti-cron suture were placed on each ligament and then secured with large bites into the junctional portion of the uterosacral ligament with the posterior aspect of the cervix. The GelPOINT was then extracted, and the sutures locked in place to shorten the uterosacral ligaments and reinforce their attachment to the cervix. After all the suspensory sutures were tied, cystoscopy was performed to assess ureteral patency. The vaginal incision was then reaproximated in a horizontal manner, using continuous absorbable suture.

Conclusion: vNOTES ULH appears to be feasible in women with uterine prolapse when uterus conservative treatment is desired. Advantages of this technique include good exposure of the ureter, lowering the risk of ureteric injury. In addition, the absence of incisions on the abdomen eliminates the risk of abdominal wound infection and incisional pain and yields a better cosmetic outcome. Further studies are needed to appraise the long-term outcomes and demonstrate the ultimate use of this modality. Journal of Minimally Invasive Gynecology (2021) 28, 1818–1819. © 2021 AAGL. All rights reserved.

Keywords: Fertility-sparing; Pelvic organ prolapse; Vaginal surgical approach; Laparoscopy, Apical suspension
Supplementary materials

Supplementary material associated with this article can be found in the online version at https://doi.org/10.1016/j.jmig.2021.06.010.

References
