

Pure transvaginal laparoscopic appendectomy

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Abstract

Background Natural orifice transluminal endoscopic surgery has been at the forefront of minimally invasive surgery. Benefits include no visible scars, less pain, and shorter recovery time. We describe a video of a 37-year-old female who underwent a pure transvaginal appendectomy (TVA) for acute appendicitis. This is 1 of 18 successfully performed TVAs at Yale-New Haven Hospital. Appropriate Institutional Review Board was obtained preoperatively.

Methods The patient was positioned in steep Trendelenburg and then a weighted speculum was introduced into the vagina allowing exposure of the posterior vaginal fornix. The cervix was grasped with a single-toothed tenaculum on the posterior cervical lip and the posterior vaginal fornix was visualized. Access to the peritoneum was achieved by electrocautery and then sharp dissection. A SILS™ port (Covidien, Mansfield, MA, USA) was introduced and

pneumoperitoneum up to 15 mmHg was achieved. Two 5-mm trocars and one 12-mm trocar were used. A 5-mm 30° angled endoscope, a flexible reticulating endograsper, and straight standard instruments were used. The identified appendix was dissected and a stapler was used to divide the mesoappendix from the appendix. Following confirmation of good hemostasis and no spillage of bowel contents, the appendix was removed from the abdomen within a retrieval bag and the culdotomy was closed with a running absorbable suture. The patient tolerated the 27 min procedure well and was discharged home in good condition on postoperative day 1.

Keywords Appendix · Laparoscopy · Appendectomy · Transvaginal · NOTES · Natural orifice surgery

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We have successfully demonstrated the feasibility and safety of pure transvaginal appendectomies without any abdominal incisions whatsoever in 18 patients. This video presents one of these procedures. It is safe and well tolerated, with only a minimal need for postoperative pain control. It allows for rapid return to daily activities while providing a most favorable cosmetic outcome for women. More extensive studies evaluating the benefits and also identifying possible complications are necessary to confirm our promising early results.

Disclosures Dr. Kurt E. Roberts is a co-founder of NovaTract and a Consultant for Covidien. No conflict exists in regards to this manuscript and video. Drs. Dan-Arin Silasi, Robert L. Bell and, Andrew J. Duffy have no conflicts of interest or financial ties to disclose.