Early Experience and Technique for Concomitant Minimally Invasive Abdominal Operations with Robotic Retro-Muscular Hernia Repair eTEP

Lucas Tidwell MD*, Lindsee McPhail MD†, Sean O'Connor MD†

*General Surgery Residency, Mountain Area Health Education Center (MAHEC), &
†Mission Subspecialty Surgery, Mission Hospital, Asheville, North Carolina



Introduction

- Recent evidence of the safety of microporous mesh in contaminated fields has allowed for an explosion of collaboration across surgical specialties. This has allowed for open retromuscular hernia repair to be performed simultaneously with other open abdominal operations. However, no reports exist of combined minimally invasive retromuscular hernia repair and other abdominal operations. Hernia repair has highlighted advantages of a minimally invasive approach, allowing for a retromuscular dissection, mesh placement with decreased pain and hospital stay even compared to IPOM. This article will describe our technique and early experience with minimally invasive abdominal organ resection performed concomitant with robotic-assisted retromuscular hernia repair utilizing extended total extraperitoneal repair (eTEP) technique.

Methods

- 5 cases: all female, avg age 57.4, avg BMI 37.5, 2/5 diabetes, 2/5 smoked
- Ventral hernia repair (VHR) utilizing extended total extraperitoneal (eTEP)
- Concomitant procedures: ovarian cystectomy, hysterectomy with bilateral salpingo-oophorectomy (x2), nephrectomy, and ureteral stone extraction with cholecystectomy
- Organ retrieval: Hysterectomies retrieved via vagina, kidney through small midline incision, gallbladder removed via port site prior to hernia repair

Discussion

- Average length of operation was 279 min
- Average length of hospital stay was 1.8 days
- Average blood loss 9.2 ml
- No complications noted perioperatively or post-operative follow-up appointments
- Main challenges encountered were port placement, patient positioning, and specimen extraction
- Close collaboration between surgeons is mandatory

Conclusion

- **Combined surgical procedures with robotic-assisted eTEP VHR procedures is feasible without increased morbidity or post-operative complications.** This allows for a completely minimally invasive approach, while eliminating the need for multiple operations and hospitalizations.

This research was supported (in whole or in part) by HCA Healthcare and/or an HCA Healthcare affiliated entity. The views expressed in this publication represent those of the author(s) and do not necessarily represent the official views of HCA Healthcare or any of its affiliated entities.