

Vaginal, Laparoscopic, and Robotic Pelvic Organ Prolapse Surgery: Which one and why?

Paul Tulikangas, MD
Female Pelvic Medicine and Reconstructive Surgery-Hartford Hospital
Associate Professor, University of Connecticut School of Medicine and Dentistry (Hartford Hospital)

Vaginal, Laparoscopic, and Robotic Pelvic Organ Prolapse Surgery: Which one and why?

Paul Tulikangas, MD

No financial relationship to disclose

Objectives

- Understand the vaginal, laparoscopic and robotic procedures used in the treatment of pelvic organ prolapse.
- Describe the benefits associated with vaginal, laparoscopic and robotic pelvic organ prolapse surgeries.
- Compare the risks and complications associated with vaginal, laparoscopic and robotic pelvic organ prolapse surgeries.

Case

A healthy 68 year-old parous 3 woman presents to you as a new patient complaining of a vaginal bulge. She has no loss of urine or stool. No bleeding. She is sexually active. She decides she wants treatment for the bulge and does not want a pessary.

Case

BMI: 28 kg/m²
Genital Hiatus 4.5 cm (wide)
Perineal Body 2 cm
Aa +3
Ba +3 (anterior vaginal wall 3 cm beyond the hymen)
C 0 (cervix is at the hymen)
D -2
Ap 0
Bp 0 (posterior wall is at the hymen)
Total Vaginal Length 10

Case



Case

- A. Vaginal hysterectomy, McCalls culdoplasty, anterior and posterior repair
- B. Vaginal uterine suspension, anterior and posterior repair
- C. Robotic hysterectomy and sacral colpopexy
- D. Laparoscopic hysterectomy and sacral colpopexy

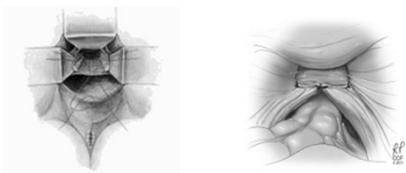
Key Points

- Highest success rate?
- Safest, least morbid surgery?
- Cost to the healthcare system?
- What do I do best?
- What can we train our surgeons to do best?

Vaginal Surgery for POP

- If there is uterine prolapse, most studies include a vaginal hysterectomy
- Higher success rate if there is stage 3 or 4 POP (Prolapse is 2 cm or more beyond the hymen)
- If hysterectomy is done for POP-re support of the apex is critical

Vaginal Surgery for POP



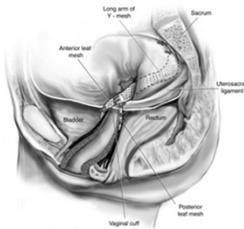
OPTIMAL Trial

- 374 women randomized to Uterosacral ligament suspension or Sacrospinous ligament fixation
- Second randomization to pelvic floor physical therapy
- 2 year follow-up
- Procedures were equal (5% retreatment, about 80% no bulge symptoms)
- Less than 5% complications (suture removal, right buttock pain in SSLF group)

Laparoscopic Surgery for POP

- In cases of uterine prolapse, the best studies laparoscopic surgery is hysterectomy with sacral colpopexy
- Sacral colpopexy involves placement of a graft from the sacrum to the apex of the vagina

Laparoscopic Surgery for POP



CARE Trial

- 322 women underwent abdominal sacral colpopexy (randomized to receive a retropubic suspension or no retropubic suspension)
- 2-year follow-up
 - 2% reoperation for POP
 - 6% mesh or suture erosion, 6% ileus or SBO
- 7-year follow-up
 - 5% reoperation for POP
 - 10% mesh erosion rate

Robotic Surgery for POP

- In cases of uterine prolapse, the best studies robotic surgery is hysterectomy with sacral colpopexy
- The surgery is performed similar to sacral colpopexy via an abdominal incision or laparoscopy
- It is easier to suture robotically than laparoscopically
- Surgeon ergonomics are improved with robotic surgery compared to laparoscopic surgery
- Robotic surgery simulation training may be a unique benefit

Robotic Surgery for POP



Robotic Surgery for POP

- Two trials comparing robotic and laparoscopic sacral colpopexy showed no difference in anatomic outcomes
- More pain in the robotic surgery group (though hospital LOS was similar)
- Most studies comparing robotic to conventional laparoscopy find robotic surgery is more expensive

Comparative Studies

- Greater likelihood of success with mesh sacrocolpopexy compared to native tissue vaginal repair (CI 1.12-3.72)
- All-cause re-operation rates are similar (including re-operation for POP and surgical complications)

Risk Factors for Surgical Failure

- Age less than 60
- Stage 3 or 4 prolapse (2 cm or more beyond the hymen)
- BMI greater than 26

Risk factors for mesh complications

- Current smoker
- Chronic steroid use
- Prior mesh complication

Vaginal Grafts for POP Surgery

- Non-absorbable mesh used in anterior vaginal wall prolapse repair improves bulge symptoms and objective outcomes
- Non-absorbable mesh is associated with longer OR times, greater blood loss, and de novo dyspareunia
- Mesh exposure/erosion rates in current studies are about 10%

Vaginal Grafts for POP Surgery



Hysterectomy vs. Hysteropexy

- **Benefits of hysteropexy:**
 - preserve fertility
 - patient preference
 - body image
 - faster surgery
- **Benefits of hysterectomy:**
 - no future procedures for abnormalities of the cervix or uterus
 - no uterine bleeding or pain
 - for women with a stage 3 or 4 prolapse, lower risk of recurrent prolapse

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What is the route of surgery?



What is the route of surgery?

- A. Vaginal hysterectomy, McCalls culdoplasty, anterior and posterior repair
- B. Vaginal uterine suspension, anterior and posterior repair
- C. Robotic hysterectomy and sacral colpopexy
- D. Laparoscopic hysterectomy and sacral colpopexy

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