Closure of the Vaginal Cuff Following Hysterectomy: Prevention and Management of Dehiscence

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Disclosures

• Covidien, Inc. (Consultant)
Learning Objectives

1. Review the proposed factors that may predispose a patient to have vaginal cuff dehiscence
2. Demonstrate technique for durable vaginal cuff closure
3. Define a strategy for optimal management of vaginal cuff dehiscence
Vaginal Cuff Dehiscence
How would you manage this patient?

1. Observation
2. Abdominal Repair
3. Vaginal Repair
4. Laparoscopic / Robotic Repair
Vaginal cuff dehiscence

• Rare complication of hysterectomy

• Mean time to occurrence (6.1 weeks – 1.6 years)

• Associated with high morbidity

• Life threatening if associated with intestinal ischemia or intra-abdominal infection

Cuff Dehiscence: Separation vs. Evisceration

Separation

Evisceration
Vaginal Cuff Dehiscence

Risk Factors ¹, ²

• Infection
• Previous radiation
• Vaginal atrophy
• Poor wound healing
• Pelvic organ prolapse
• Surgical technique

Predicating Events ²

• Valsalva (16 – 30%)
• Coitus (8 – 48%)
• None (~ 70%)

Presenting Symptoms

• Abdominal pain (58 – 100%)
• Vaginal bleeding or watery discharge (33 – 90%)
• Vaginal pressure (~ 30%)
• Evisceration (up to 70%)

Incidence of vaginal cuff dehiscence

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<th>AH (n)</th>
<th>VH (n)</th>
<th>LH (n)</th>
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<td>(0.39%)</td>
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Incidence of vaginal cuff dehiscence

TLH

- **Laparoscopic Closure**: 20 / 2332 (0.86%)
- **Transvaginal Closure**: 3 / 1241 (0.24%)

Incidence of vaginal cuff dehiscence

Vaginal Cuff Dehiscence

• Highest incidence following laparoscopic hysterectomy

• Unclear role for energy use in promoting dehiscence

• Laparoscopic approach for cuff closure may be greater risk factor than technique employed for colpotomy
Prevention of vaginal cuff dehiscence
Prevention of vaginal cuff dehiscence

VCD Prevention

Surgical Technique

Preoperative Considerations

Postoperative Considerations
Prevention of vaginal cuff dehiscence

Surgical Technique

Optimize Colpotomy

Optimize Closure Technique
Prevention of vaginal cuff dehiscence

Surgical Technique

Optimize Colpotomy

Optimize Closure Technique
Anatomy of vaginal apex
Technique for durable cuff closure

• Optimize your colpotomy

• Reconstruct the pericervical ring by approximating –
  – Pubocervical Fascia
  – Vaginal Epithelium
  – Rectovaginal Septum
  – Cardinal-uterosacral Ligament Complex

• Restore the vaginal apex to the level of the ischial spines
Management of Vaginal Cuff Dehiscence
Cuff Dehiscence: Separation vs. Evisceration

Separation

Evisceration
Cuff Dehiscence: Separation vs Evisceration

Closure of the Vaginal Cuff: Prevention and Management of Dehiscence
Management of vaginal cuff evisceration

- **Transvaginal**
  - Medically Stable
  - Peritonitis Absent
  - No Bowel Injury

- **Abdominal / Laparoscopic**
  - Peritonitis
  - Bowel Compromise
  - Hematoma
  - Abscess

How would you manage this patient?

1. Abdominal Repair
2. Vaginal Repair
3. Laparoscopic / Robotic Repair
How would you manage this patient?
How would you manage this patient?

1. Abdominal Repair
2. Vaginal Repair
3. Laparoscopic / Robotic Repair
Management of vaginal cuff evisceration

1. Broad spectrum intravenous antibiotics
2. Irrigate intestine with warm saline
3. Reduce prolapsed intestine
4. Debride vaginal cuff sharply
5. Approximate cuff edges with 0 gauge, monofilament suture in interrupted fashion
6. Drain per clinical indications
7. Discharge following return of bowel function

Vaginal Cuff Dehiscence
Management of vaginal cuff dehiscence

• Postoperative Care
  – Pelvic rest x 3 months
  – Tight management of conditions leading to increased intra-abdominal pressure
  – Possible role for vaginal estrogen supplementation
Vaginal cuff dehiscence

• Rare complication following hysterectomy

• Greater incidence following laparoscopic cuff closure

• Optimal management strategy dependent on the clinical picture
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https://www.youtube.com/playlist?list=PLwsHSC0paoJjjkIsrgxuJw6SHI_RJPXY9