Overview of Pelvic Operation for Obstructive Defecation

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The Paradox

• Rectoceles are often asymptomatic
• Rectoceles are common in healthy volunteers and constipated subjects
• Structural repairs are not always “successful”
Introduction

• Do rectoceles cause defecatory dysfunction?
• Does defecatory dysfunction cause rectoceles?
• Do other sources of defecatory dysfunction effect surgical outcomes?
• Does structural repair improve function?
Vaginal fascial attachments

- Pubocervical fascia
- Paracolpium
- Rectovaginal fascia
- Arcus tendineus fasciae pelvis
- Top of perineal body
- Urethra
- Rectum
- Levator ani

Level II

[Diagram of vaginal fascial attachments]
Vaginal support
Rectocele
Posterior Enterocele
Rectocele
Posterior Vaginal Wall Bulge

Fig. 1A. Posterior Vaginal Wall Bulge
1) Cystocele; 2) Enterocoele; 3) Rectum; 4) Vagina

Fig. 1B. Posterior Vaginal Wall Bulge
1) Bladder; 2) Enterocoele; 3) Rectocoele; 4) Vagina
Do rectoceles cause symptoms?

• 98 women
• Fluoroscopic diagnosis
  – Contrast retention
  – Anterior rectal wall protrusion
• 76 rectoceles
• 22 normals

Kenton Int Urogynecol J 1999;10:96-99
Do rectoceles cause symptoms?

No correlation between contrast retention and symptoms

Kenton Int Urogynecol J 1999;10:96-99
Do rectoceles cause incomplete emptying?

- Evacuation proctography
- 11 patients with rectocele/barium trapping
- 11 patients with rectocele matched for size
- 11 without rectocele
- Balloon evacuation to simulate stool

Halligan Dis Colon Rectum 1995;38:764-768
Do rectoceles cause incomplete emptying?

Figure 3. Evacuation times on evacuation proctography.

Halligan Dis Colon Rectum 1995;38:764-768
Do enteroceles obstruct defecation?

• 47 constipated patients
• 31 controls
• Proctography/Peritoneography
• 36 (77%) constipated patients with peritoneocele
• Peritoneal descent greater in constipated patients (3.5 vs. 0.4cm, p<0.001)

Halligan AJR 1996;167:461-466
Do enteroceles obstruct defecation?

Halligan AJR 1996;167:461-466

P = 0.008

P = 0.02

Halligan AJR 1996;167:461-466
Does defecatory dysfunction cause prolapse

- Case control study
- 73 patients
  - Controls (n = 27)
  - SUI (n = 23)
  - Uterovaginal prolapse (n = 23)
- Controlled for parity, heaviest baby, age, menopausal status, forceps delivery

Spence-Jones Br J of Ob/Gyn 1994;101:147-152
Does defecatory dysfunction cause prolapse

<table>
<thead>
<tr>
<th>Onset</th>
<th>Symptoms</th>
<th>Controls (n = 27)</th>
<th>SUI (n = 23)</th>
<th>UV prolapse (n = 23)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young adult</td>
<td>Straining</td>
<td>1 (4%)</td>
<td>7 (30%)$^1$</td>
<td>14 (61%)$^2$</td>
<td>$^{1}0.018$, $^{2}0.0001$</td>
</tr>
<tr>
<td></td>
<td>BM &lt; 2/wk</td>
<td>2 (27%)</td>
<td>2 (23%)</td>
<td>11 (48%)$^3$</td>
<td>$^{3}0.002$</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2 (27%)</td>
<td>7 (30%)</td>
<td>15 (65%)</td>
<td></td>
</tr>
<tr>
<td>At present</td>
<td>Straining</td>
<td>1 (4%)</td>
<td>4 (17%)</td>
<td>19 (83%)$^4$</td>
<td>$^{4}0.00001$</td>
</tr>
<tr>
<td></td>
<td>BM &lt; 2/wk</td>
<td>2 (8%)</td>
<td>3 (13%)</td>
<td>14 (61%)$^5$</td>
<td>$^{5}0.00006$</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3 (11%)</td>
<td>6 (26%)</td>
<td>22 (95%)$^6$</td>
<td>$^{6}0.00001$</td>
</tr>
</tbody>
</table>

Spence-Jones Br J of Ob/Gyn 1994;101:147-152
Are functional results after rectocele repair affected by anismus

• Anismus
  – Symptoms of obstructed defecation
  – Paradoxical increase EMG activity or anal sphincter pressure with straining

• 1996-1998
• 59 patients
• Transanal repair
• 6 mos follow-up
Are functional results after rectocele repair affected by anismus

<table>
<thead>
<tr>
<th>Symptom</th>
<th>No Anismus</th>
<th></th>
<th>Anismus</th>
<th></th>
<th>P</th>
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<tbody>
<tr>
<td></td>
<td>Preop</td>
<td>Postop</td>
<td>Preop</td>
<td>Postop</td>
<td></td>
</tr>
<tr>
<td>Constipation</td>
<td>43</td>
<td>16 (37)</td>
<td>16</td>
<td>11 (69)</td>
<td>0.03</td>
</tr>
<tr>
<td>Vaginal bulge</td>
<td>409</td>
<td>5 (13)</td>
<td>12</td>
<td>2 (17)</td>
<td>0.71</td>
</tr>
<tr>
<td>Vaginal stenting</td>
<td>24</td>
<td>3 (13)</td>
<td>4</td>
<td>2 (50)</td>
<td>0.71</td>
</tr>
<tr>
<td>Rectal stenting</td>
<td>23</td>
<td>3 (13)</td>
<td>9</td>
<td>6 (67)</td>
<td>0.002</td>
</tr>
<tr>
<td>Laxative use</td>
<td>43</td>
<td>29 (67)</td>
<td>16</td>
<td>14 (88)</td>
<td>0.124</td>
</tr>
<tr>
<td>Enema use</td>
<td>7</td>
<td>2 (29)</td>
<td>5</td>
<td>4 (80)</td>
<td>0.079</td>
</tr>
</tbody>
</table>

Tjandra Dis Colon Rectum 1999;42:1544-1550
Functional outcomes after rectocele repair

P < 0.05

Tjandra Dis Colon Rectum 1999;42:1544-1550
Posterior colporrhaphy: Effects on bowel and sexual function

• 1989-1994
• 231 patients
  – 171 interviewed (74%)
  – 140 examined (61%)
• Retrospective cohort
• Levator ani muscles incorporated
• 76% rectocele cure rate

Kahn, Br J Obstet Gynecol 1997;104:82-86
Posterior colporrhaphy: Effects on bowel and sexual function

Kahn, Br J Obstet Gynecol 1997;104:82-86

P < 0.05
Site specific defect repair
Anatomic and functional assessment of discrete rectocele repair

- 69 patients
- Retrospective cohort study
- Follow-up
  - Initial follow-up 6 weeks
  - Long term follow-up 24 mos
- Symptom questionnaire (RR 87%)
- 82% rectocele cure rate

Cundiff Am J Obstet Gynecol 1998;179:1451-7
Anatomic and functional assessment of discrete rectocele repair

Cundiff Am J Obstet Gynecol 1998;179:1451-7
CARE Study RCT

- 305 patients with Stage II-IV POP
- Abdominal Sacrocolpopexy ± Burch
  - 87 with posterior repair
  - 211 without posterior repair
- 1 year follow-up

CARE Study RCT

• 71-88% reduction in symptoms of
  – Digital assistance to defecate
  – Excessive straining
  – Feeling of incomplete evacuation

• 50-75% reduction in fecal and/or flatal incontinence

• 10% denovo symptoms (with posterior repair)
  – Fecal incontinence with activity
  – Pain prior to defecation

Conclusion

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