Overview of Pelvic Operation for Obstructive Defecation Michael Heit MD PhD Female Pelvic Medicine and Reconstructive Surgery Indiana University School of Medicine







The Paradox

- Rectoceles are often asymptomatic
- Rectoceles are common in healthy volunteers and constipated subjects
- Structural repairs are not always "successful"

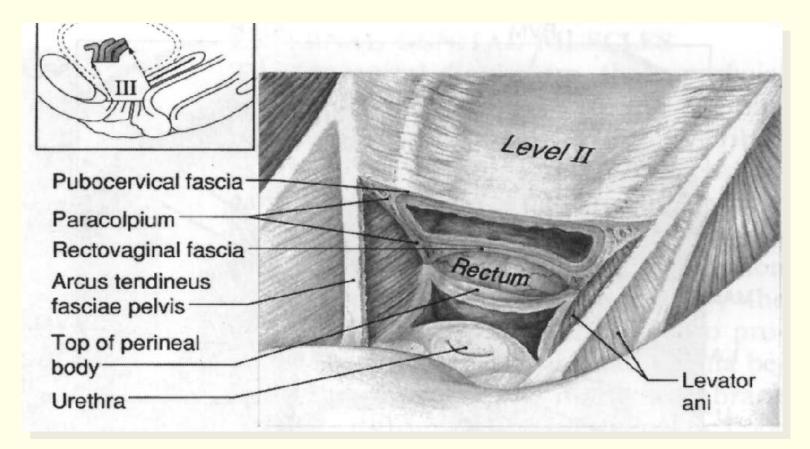


Introduction

- Do rectoceles cause defecatory dysfunction?
- Does defecatory dysfunction cause rectoceles?
- Do other sources of defecatory dysfunction effect surgical outcomes?
- Does structural repair improve function?

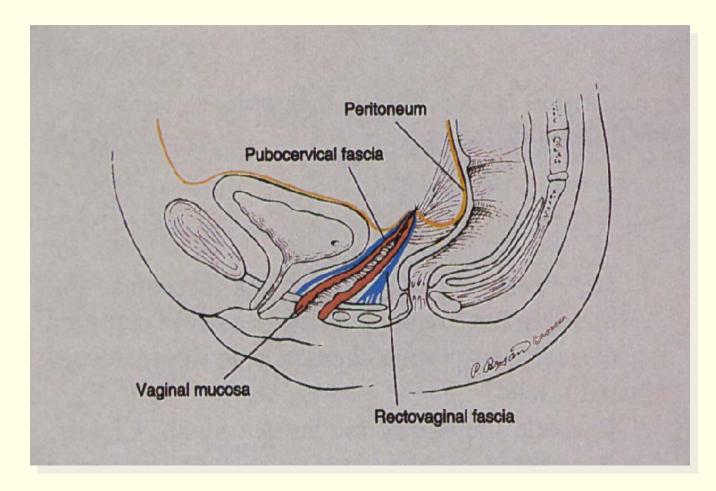


Vaginal fascial attachments



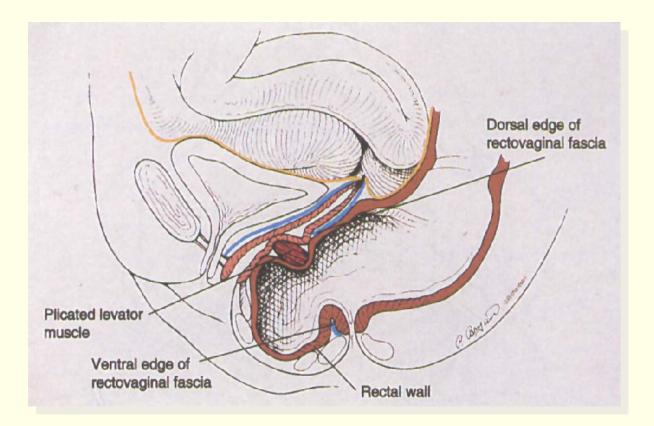


Vaginal support



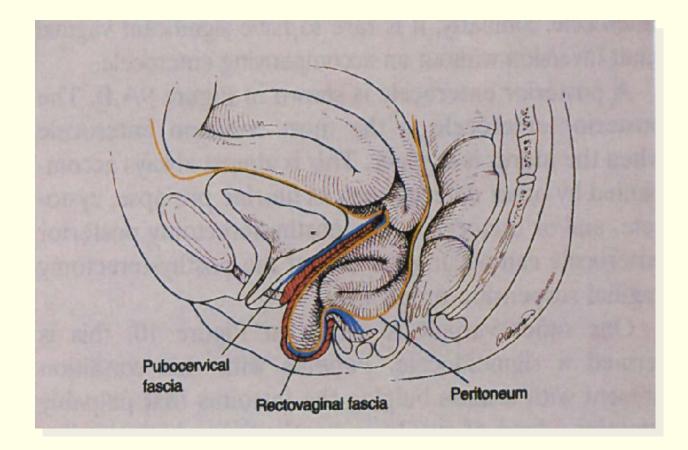


Rectocele





Posterior Enterocele





Rectocele





Posterior Vaginal Wall Bulge



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



Fig. 1B Posterior Vaginal Wall Bulge 1)Bladder; 2)Enterocele; 3)Rectocele; 4) Vagina



Do rectoceles cause symptoms?

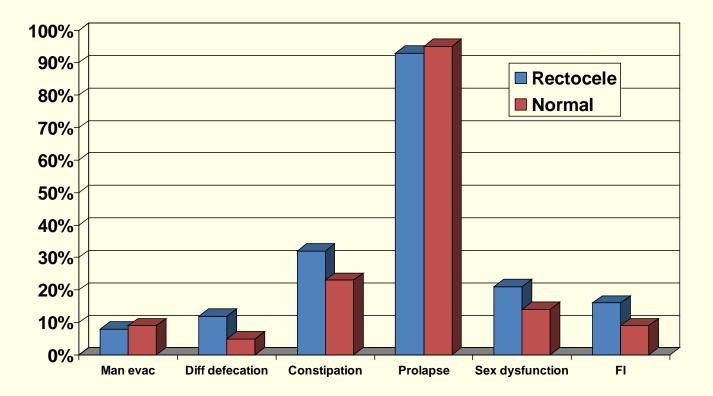
- 98 women
- Flouroscopic diagnosis
 - Contrast retention
 - Anterior rectal wall protrusion
- 76 rectoceles
- 22 normals

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?

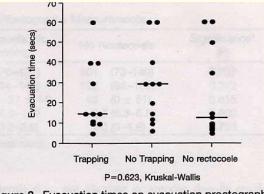
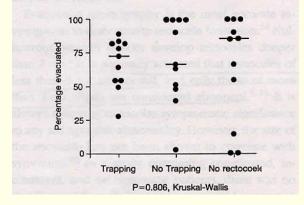


Figure 3. Evacuation times on evacuation proctography.



Halligan Dis Colon Rectum 1995;38:764-768



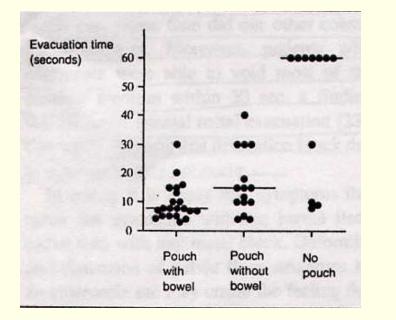
Do enteroceles obstruct defecation?

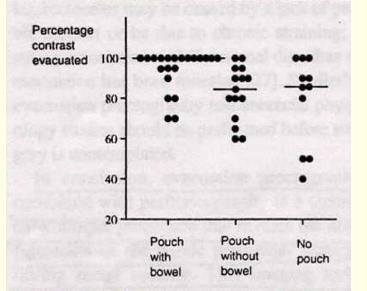
- 47 constipated patients
- 31 controls
- Proctography/Peritoneography
- 36 (77%) constipated patients with peritoneocele
- Peritoneal descent greater in constipated patients (3.5 vs. 0.4cm, p<0.001)

Halligan AJR 1996;167:461-466



Do enteroceles obstruct defecation?





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

| Onset | Symptoms | Controls (n = 27) | SUI (n = 23) | UV prolapse (n = 23) | Р | |
|----------------|-----------|----------------------|----------------------|-------------------------|---|--|
| Young adult | Straining | 1 (4%) | 7 (30%) ¹ | 14 (61%) ² | ¹ 0.018, ² 0.0001 | |
| | BM < 2/wk | 2 (27%) | 2 (23%) | 11 (48%) ³ | ³ 0.002 | |
| | Total | 2 (27%) | 7 (30%) | 15 (65%) | | |
| At present | Straining | 1 (4%) | 4 (17%) | 19 (83%) ⁴ | ⁴ 0.00001 | |
| | BM < 2/wk | 2 (8%) | 3 (13%) | 14 (61%) ⁵ | ⁵ 0.00006 | |
| | Total | 3 (11%) | 6 (26%) | 22 (95%) ⁶ | ⁶ 0.00001 | |

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

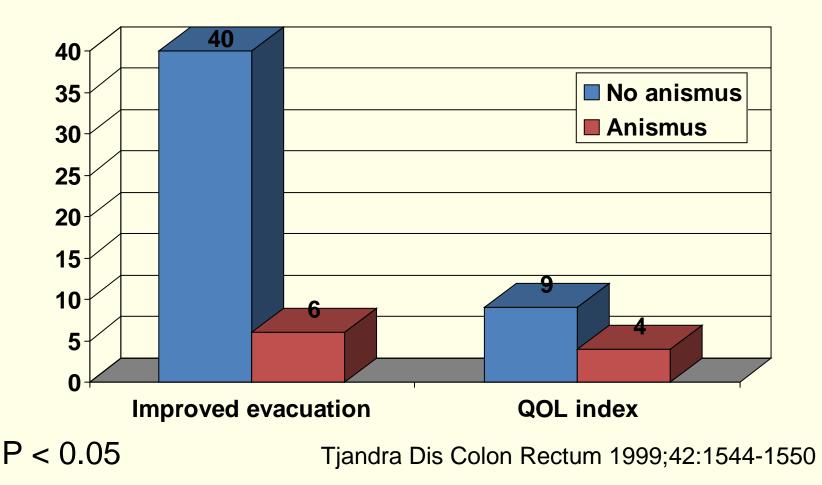
Are functional results after rectocele repair affected by anismus

| Symptom | No Anismus | | Anismus | | |
|------------------|------------|---------|---------|---------|-------|
| | Preop | Postop | Preop | Postop | Р |
| Constipation | 43 | 16 (37) | 16 | 11 (69) | 0.03 |
| Vaginal bulge | 409 | 5 (13) | 12 | 2 (17) | 0.71 |
| Vaginal stenting | 24 | 3 (13) | 4 | 2 (50) | 0.71 |
| Rectal stenting | 23 | 3 (13) | 9 | 6 (67) | 0.002 |
| Laxative use | 43 | 29 (67) | 16 | 14 (88) | 0.124 |
| Enema use | 7 | 2 (29) | 5 | 4 (80) | 0.079 |

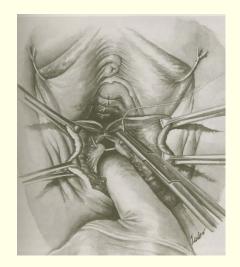
Tjandra Dis Colon Rectum 1999;42:1544-1550

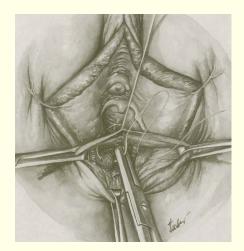


Functional outcomes after rectocele repair

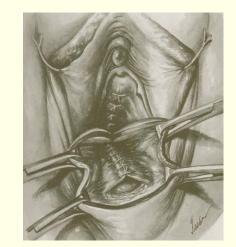








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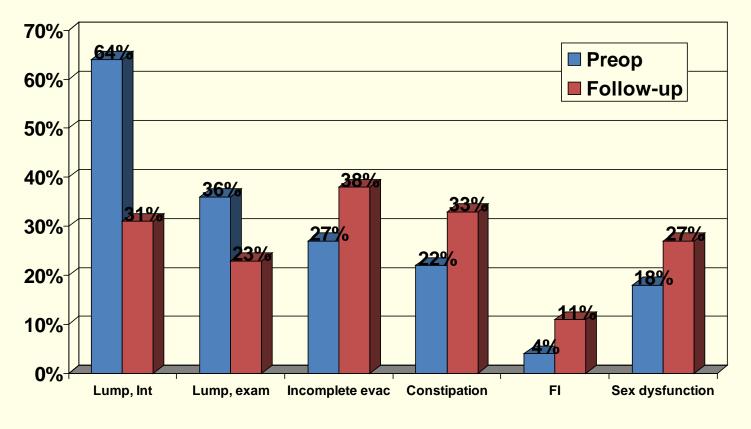
Posterior colporrhaphy: Effects on bowel and sexual function

- 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

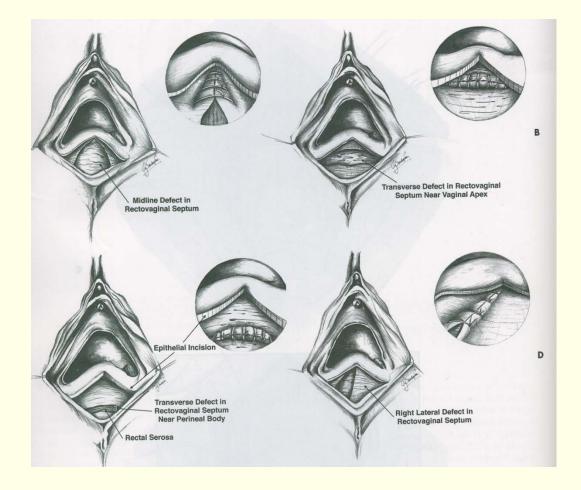


P < 0.05

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



Site specific defect repair





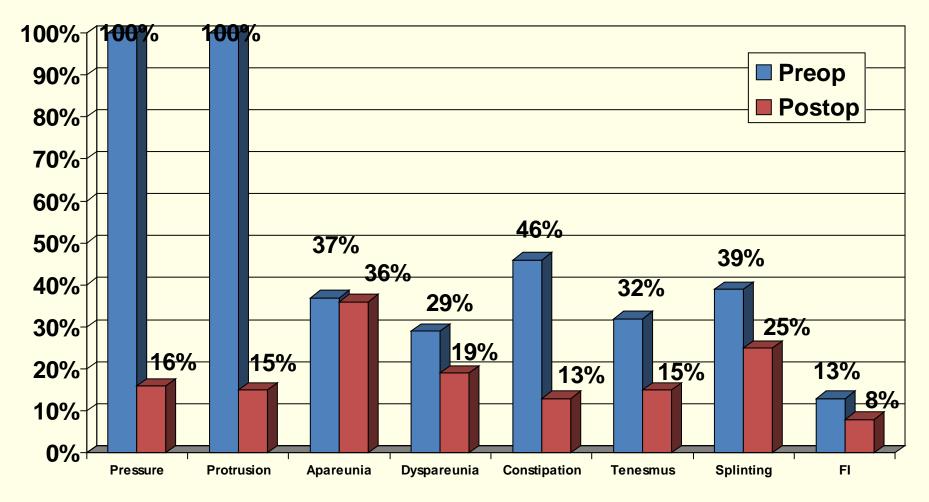
Anatomic and functional assessment of discrete rectocele repair

- 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



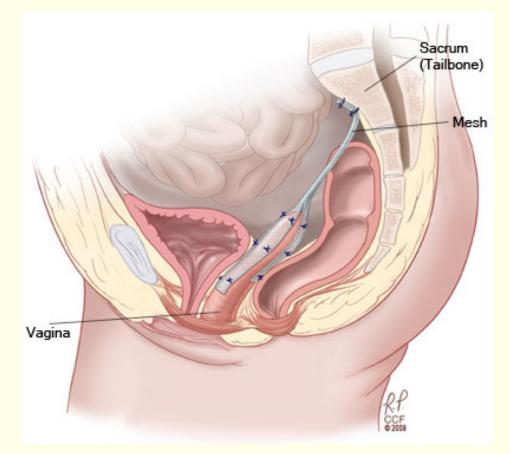
CARE Study RCT

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

Bradley CS, Nygaard IE, Brown MB, et al. Bowel symptoms in women 1 year after sacrocolpopexy. Am J Obstet Gynecol 2007;197:642.e1-642.e8.



Abdominal Sacrocolpopexy



Bradley CS, Nygaard IE, Brown MB, et al. Bowel symptoms in women 1 year after sacrocolpopexy. Am J Obstet Gynecol 2007;197:642.e1-642.e8.



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

Bradley CS, Nygaard IE, Brown MB, et al. Bowel symptoms in women 1 year after sacrocolpopexy. Am J Obstet Gynecol 2007;197:642.e1-642.e8.



Conclusion

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