### 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"

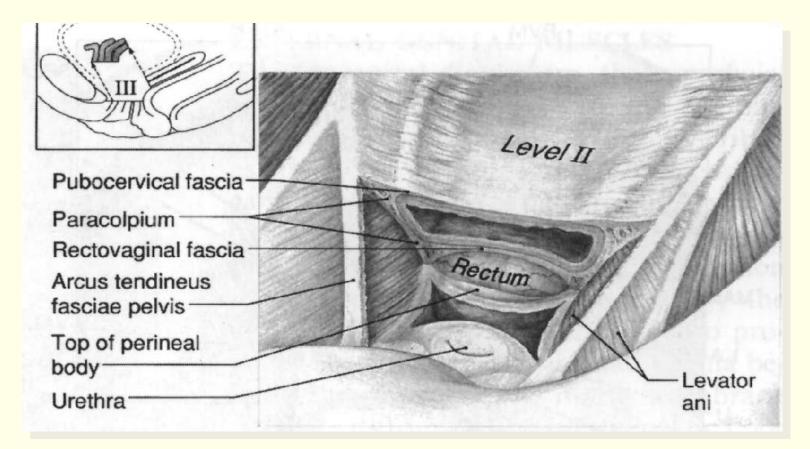


# Introduction

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

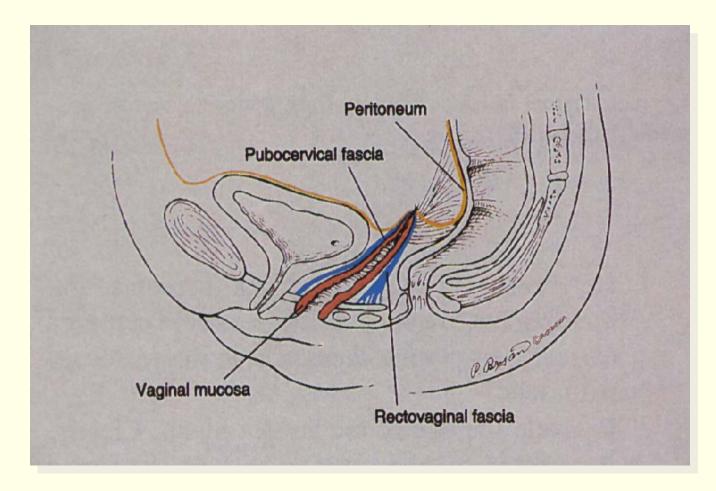


### Vaginal fascial attachments



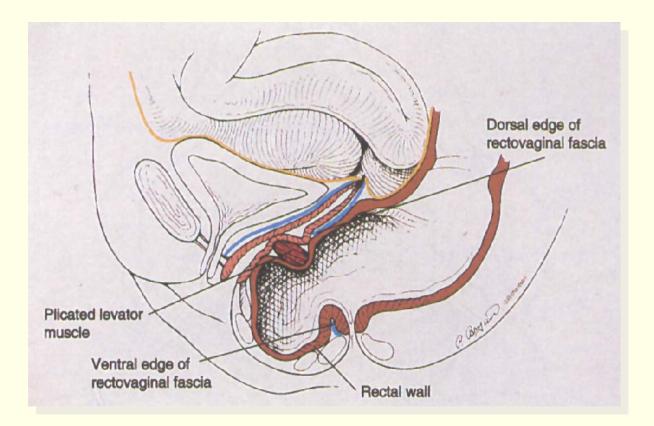


### Vaginal support



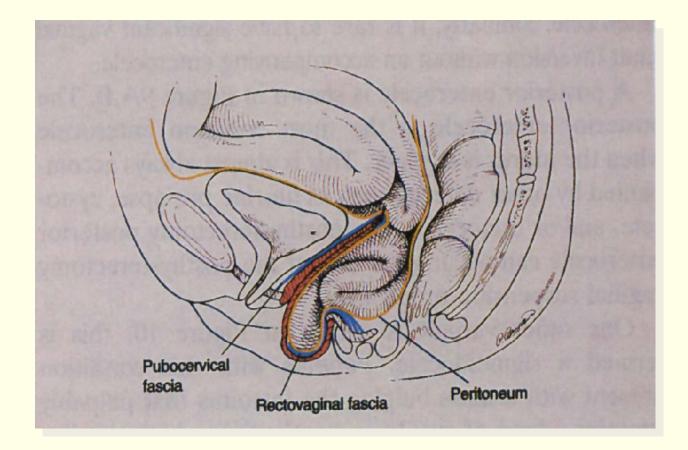


### Rectocele





### **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?

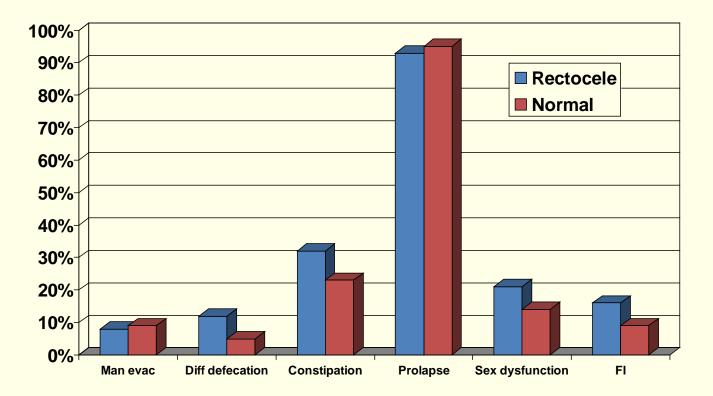
- 98 women
- Flouroscopic diagnosis
  - Contrast retention
  - Anterior rectal wall protrusion
- 76 rectoceles
- 22 normals

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?

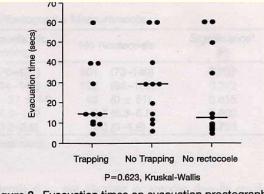
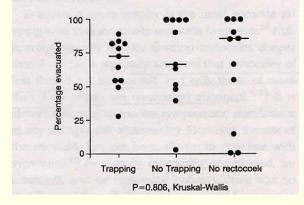


Figure 3. Evacuation times on evacuation proctography.



#### Halligan Dis Colon Rectum 1995;38:764-768



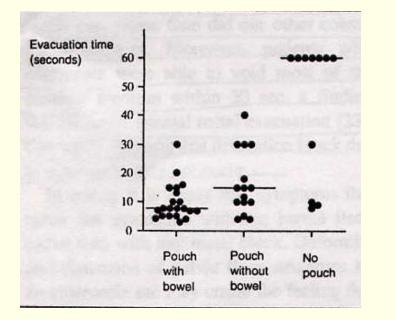
### Do enteroceles obstruct defecation?

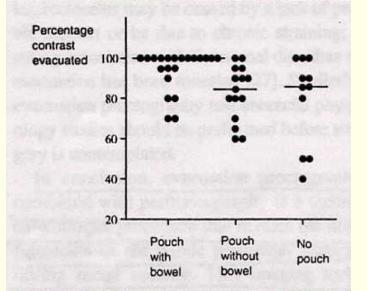
- 47 constipated patients
- 31 controls
- Proctography/Peritoneography
- 36 (77%) constipated patients with peritoneocele
- Peritoneal descent greater in constipated patients (3.5 vs. 0.4cm, p<0.001)</li>

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%) <sup>1</sup>	14 (61%) <sup>2</sup>	<sup>1</sup> 0.018, <sup>2</sup> 0.0001	
	BM < 2/wk	2 (27%)	2 (23%)	11 (48%) <sup>3</sup>	<sup>3</sup> 0.002	
	Total	2 (27%)	7 (30%)	15 (65%)		
At present	Straining	1 (4%)	4 (17%)	19 (83%) <sup>4</sup>	<sup>4</sup> 0.00001	
	BM < 2/wk	2 (8%)	3 (13%)	14 (61%) <sup>5</sup>	<sup>5</sup> 0.00006	
	Total	3 (11%)	6 (26%)	22 (95%) <sup>6</sup>	<sup>6</sup> 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

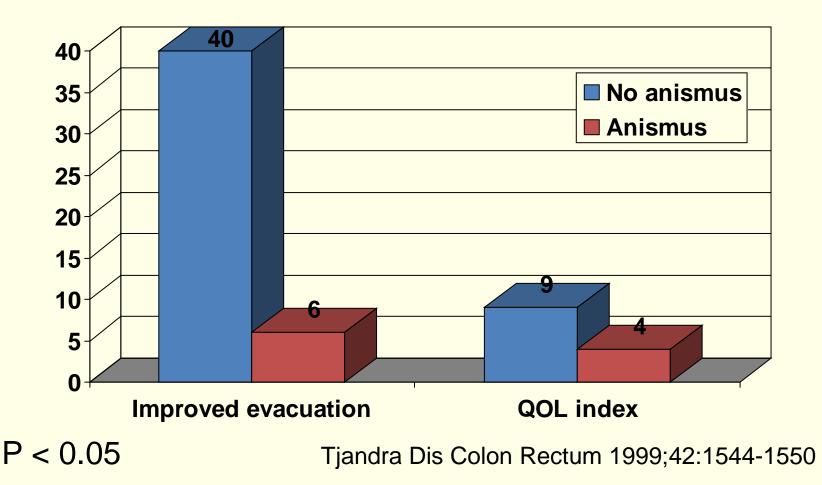
#### Are functional results after rectocele repair affected by anismus

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

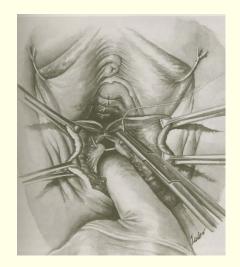
Tjandra Dis Colon Rectum 1999;42:1544-1550

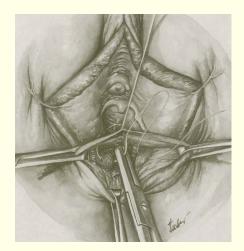


#### Functional outcomes after rectocele repair

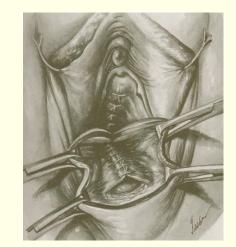








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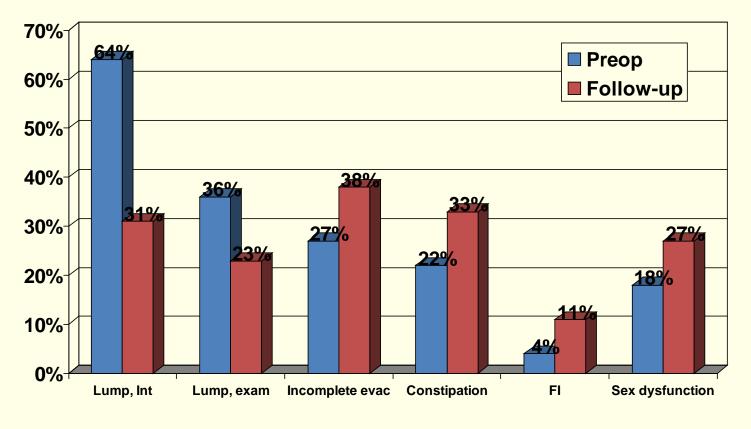
Posterior colporrhaphy: Effects on bowel and sexual function

- 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

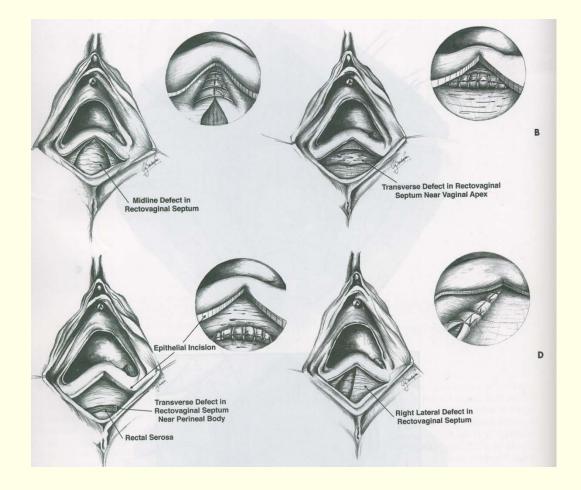


P < 0.05

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



### Site specific defect repair





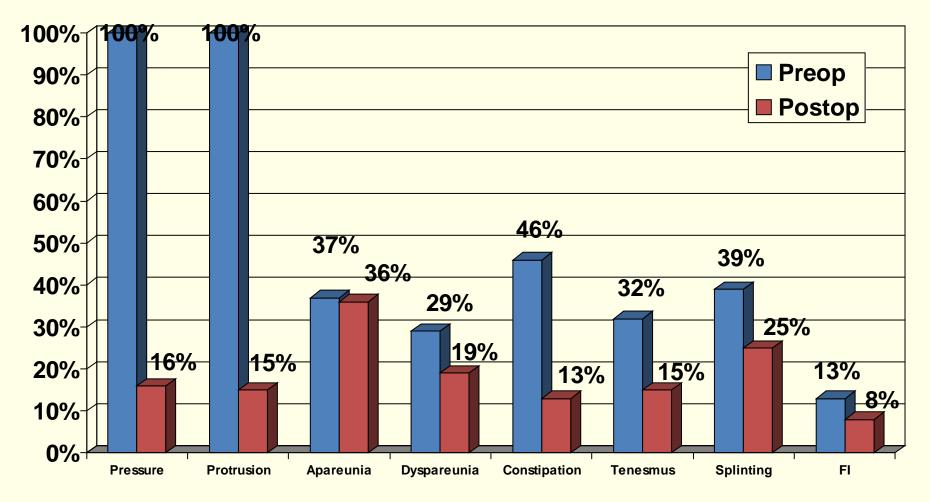
Anatomic and functional assessment of discrete rectocele repair

- 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



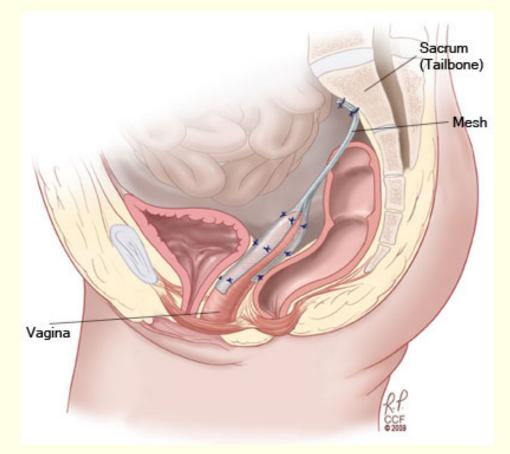
## **CARE Study RCT**

- 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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