Site Specific or Old Fashion Rectocele Repairs: Which is Best?

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MRI: LARGE RECTOCELE





POSTERIOR VAGINAL PROLAPSE

Women's Health Initiative study: – 16,616 women with uterus: 18.6% – 10, 727 women without uterus: 18.3% Posterior Vaginal Prolapse Gynecological Symptoms

- Sexual dysfunction
 - Pain
 - Discomfort
 - Slackness
- Prolapse Sensation
 - Lump
 - Pressure
 - Pulling

Posterior Vaginal Prolapse Colorectal Symptoms

- Constipation
- Incomplete emptying
- Splinting of the vagina, perineum or buttocks
- Digitation of the rectum
- Anal incontinence
- Pain
- Bleeding





- In women with POP, symptoms associated with worsening posterior POP:
 - Incomplete evacuation
 - Digital manipulation

Pelvic Organ Prolapse and Defecatory Dysfunction

- Posterior POP and bowel dysfunction
 - 92% normal stool frequency
 - 24% Strained usually or always
 - 10% Splinted usually or always
 - 16% Fecal incontinence
- Bother scale (1=not at all, 10=extremely)
 - 52% 1-4
 - 20% 5-7
 - 28% >8

Weber et al., Am J Obstet Gynecol 1998;179:1446-9.

Defecatory Symptoms WHI cohort

- Splint to have BM: 20%
- Usually strain too hard for BM: 11%
- Strong urgency before BM: 13%
- Sense of incomplete evacuation: 35%
- Abdominal pain before BM: 5%
- Pain during BM: 3%

Interrelationship of Ligament and Muscular Support

Muscular Support

- Long-term support
 - Closure of genital hiatus
 - Anterior Extension of Levator plate
- Ligamentous support
- Short-term support
 - Tether viscera during relaxation of pelvic diaphragm.



Endopelvic Connective Tissue



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Connective Tissue and Muscle





Site-Specific Defects





Posterior Colpoperinorrhaphy Surgical Goals

- Barrier between vagina and rectum
- Enlarge perineal body
- Vaginal narrowing

Surgical Repairs for Rectocele

- Posterior colporrhaphy
- Defect directed rectocele repair
- Posterior fascial replacement
- Transanal rectocele repair

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Posterior Wall

Posterior Colporrhapy

- Transanal Approach (Proven Less Successful)
- Transvaginal approach
- Two techniques:
 - Midline plication (posterior colporrhaphy)
 - Site-specific defect repair

Posterior Colporrhaphy

Strengths:

- Effectively Reduces Rectocele
- Good Durability

Disadvantages:

- Reported Increase in Dyspareunia
- Unclear Impact on
 Defecatory Function

Defect Directed Rectocele Repair

Strengths:

- Reestablishes "normal anatomy"
- Improves dyspareunia
- Improves bowel function

Disadvantages:

 Theoretical lack of durability





Posterior Vaginal Repair

- Success rates:
 - Anatomic: 80-90%
 - Symptomatic (improved constipation): less consistent (20%-40%)
 - Improvement in anal incontinence: unclear
- Complications:
 - Hemorrhage
 - Infection
 - Rectal/anal injury
 - Dyspareunia



Perineal Repair

- Perineorrhaphy
 - Plication of the Transverse perineal muscles
 - Plication of the Bulbocavernosus muscles
 - Indicated in patients with perineal relaxation/separation

RUNNING RECTOCELE SUTURE







Posterior Colpoperineorrhaphy Preop and Postop Symptoms

	Kahn		Mellgren	
Subjects	231 (171)		25	
F/U (mo)	42		12	
Protrusion	64%	31%	84%	40%
Dyspareunia	18%	27%	4%	12%
Constipation	22%	33%	94%	48%
Splinting		33%	48%	20%
FI	4%	11%	8%	8%

Defect Directed Rectocele Repair Surgical Goals

- Repair rents in the rectovaginal fascia
- Repair normal support of the perineal body
- Maximize normal anatomy

Site-Specific Defect Repair



Site-Specific Defect Repair









*Defect-Directed Rectocele Repair** Preop and Postop Symptoms

	Cund	liff	Port	er	Kent	ton	Glavi	nd
Subjects	69		132		66		67	
F/U (mo)	24		12		12		3	
Protrusion	100%	15%	38%	14%	85%	6%	100%	1.5%
Dyspareunia	29%	19%	67%	46%	26%	3%	12%	6%
Constipation	46%	13%	60%	50%	46%	18%	40%	4%
Splinting	39%	25%	24%	14%	24%	11%		

Does Site-Specific Rectocele Repair Produce Better Anatomic and Functional Outcomes Than Standard Posterior Colporrhaphy?

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Results Controlled Pilot Study • 307 Women Included

–124 site specific repair–183 standard colporrhaphy

Anatomic outcome

Site Specific	Post. Colp.	Ρ
(n = 124)	(n=183)	

Rectocele recurrence			
2 nd degree	41 (33%)	26 (14%)	0.001*
≥ 3 rd degree	14 (11%)	7 (4%)	0.02*
Mean Bp Point (cm)	-2.2 ± 0.3	-2.7 ± 0.4	0.001*

Functional Outcome

	Site-Specific (n = 124)	Post. Colp. (n=183)	P
Symptomatic Bulge	14 (11)	7 (4)	0.02*
Dyspareunia	24 (19)	27 (15)0.51	
Constipation	46 (37)	62 (37)	0.56
Fecal Incont.	24 (19)	28 (15)0.49	

Posterior Repair 3–Arm Prospective RCT

- Stage II Posterior Vaginal Prolapse (n= 106)
- Posterior Colporrhaphy (n=37)
- Site-Specific Rectocele Repair (n=37)
- Site-Specific Rectocele Repair with SIS collagen matrix (Fortagen[™]) (n=32)
- 98 Returned for F/U

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Paraiso et al Am J Obstet Gynecol 2007



Posterior Repair 3—Arm Prospective RCT: One Year Post-op

- Posterior Colporrhaphy
 - 14% Stage II Recurrence (4/28)
 - -7% Recurrence ≥ Hymen (2/28)
- Site-Specific Repair
 - 22% Stage II Recurrence (6/27)
 - -7.4% Recurrence ≥ Hymen (2/27)
- Site-Specific Repair with Graft
 - Higher Stage II Recurrence: 46% (12/26) p=0.02
 - 20% Recurrence \geq Hymen (5/25)

Paraiso et al Am J Obstet Gynecol 2007

Posterior Repair 3–Arm Prospective RCT: 1 & 2 Year QOL Outcomes

- Improved for All 3 Procedures at 1 &2 yrs (p=0.001) with No Differences Between Groups
- Pelvic Floor Distress Inventory (PFDI-20)
- Pelvic Organ Prolapse Distress Inventory (POPDI-6)
- Colorectal-Anal Distress Inventory CRADI-8
- UDI-6
- Pelvic Floor Impact Questionnaire (PFIQ-7)
- Pelvic Organ Prolapse Impact Quesitonnaire (POPIQ-7)
- CRAIQ-7

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Paraiso et al Am J Obstet Gynecol 2007

Posterior Fascial Replacement Surgical Goals

- Replace the rectovaginal fascia
- Repair normal support of the perineal body
- Maximize normal anatomy

Summary

- Dyspareunia and defecatory dysfunction can result from posterior vaginal wall prolapse.
- Some surgical repairs seem to worsen these symptoms.
- The surgical approach should be based on:
 - Preoperative symptoms
 - Patient's present and anticipated sexual activity
 - Informed consent
- More prospective comparisons of different surgical techniques for relief of symptoms are needed.