

## DOES DISCRETE SITE-SPECIFIC DEFECT REPAIR CARRY BETTER OBJECTIVE AND SUBJECTIVE OUTCOMES THAN STANDARD POSTERIOR COLPORRHAPHY?

### Hypothesis / aims of study

Previous reports have advocated discrete site-specific defect repair of Denonvillier's fascia for correction of advanced rectocele, with favorable anatomic outcome as well as sexual and bowel function (1, 2). In this study, we assessed objective and subjective outcomes of this technique one year postoperatively, as compared to standard posterior colporrhaphy with midline plication.

### Study design, materials and methods

Office and hospital charts of all 307 patients who had repair of advanced rectocele in our institution between July 1998 and June 2002 were systematically reviewed. During this time period, all patients undergoing posterior vaginal repair were evaluated intraoperatively for discrete defects in the Denonvillier's fascia. Whenever found, these defects were repaired in a site-specific manner, as previously described (1, 2). Standard posterior colporrhaphy with midline plication of the endopelvic connective tissues was performed in all cases with midline defects or diffuse weakness of the fascia, or when an isolated defect could not be found. For each patient, we recorded preoperative and one year postoperative pelvic exams by the Baden-Walker and POP-Q techniques. Dyspareunia and bowel symptoms were assessed with Likert scales before and one year after surgery. Data were analyzed using the student t-test, Chi-square test, and a multivariate logistic regression model.

### Results

**Table 1: Objective and subjective outcomes of discrete site specific defect repair vs. standard posterior colporrhaphy**

Variable	Site specific repair (n=124)	Standard colporrhaphy (n=183)	P
Recurrence rates			
2 <sup>nd</sup> degree <sup>†</sup>	41(33)	26(14)	<b>0.001*</b>
≥ 3 <sup>rd</sup> degree <sup>†</sup>	14(11)	7(4)	<b>0.02*</b>
Mean postop Bp point <sup>‡</sup> (cm)	-2.2	-2.7	<b>0.001*</b>
Subjective recurrence	(11)	7(4)	<b>0.02*</b>
Dyspareunia			
Preoperative	9(7)	13(7)	1.00
Postoperative	24(19)	26(14)	0.30
Constipation			
Preoperative	41(33)	55(30)	0.68
Postoperative	50(40)	53(29)	0.20
Diarrhea			
Preoperative	17(14)	18(10)	0.42
Postoperative	19(15)	17(9)	0.19
Abdominal pain			
Preoperative	30(24)	38(21)	0.63
Postoperative	14(11)	18(10)	0.68
Fecal Incontinence			
Preoperative	19(15)	37(20)	0.31
Postoperative	24(19)	28(15)	0.49
Flatal Incontinence			
Preoperative	73(59)	90(49)	0.53
Postoperative	58(47)	79(43)	0.47

\* Statistically significant; <sup>†</sup>According to the Baden-Walker halfway system; <sup>‡</sup>According to the POP-Q system. Values are presented as number (%) unless indicated otherwise.

### **Interpretation of results**

124 patients underwent site-specific defect repair (81% combined, 13% distal, and 7% proximal defects) and 183 patients underwent standard posterior colporrhaphy. One year postoperatively, recurrence rates of rectocele both beyond the midvaginal plane, and beyond the introitus, as well as mean postoperative Bp point were significantly higher in the site-specific repair group (Table 1). In addition, prevalence of symptomatic bulge was more prevalent among the site-specific group. Both groups did not differ in mean age (73 vs. 72 yrs), parity (2.67 vs. 2.84), BMI (26.5 vs. 26.1), preoperative prolapse (2<sup>nd</sup> degree: 58% vs. 57%; 3<sup>rd</sup> degree: 26% vs. 28%; 4<sup>th</sup> degree: 16% vs. 15%), preoperative mean Bp point values (-0.4 vs. -0.3cm), concomitant surgical procedures (hysterectomy: 34% vs. 30%; anterior colporrhaphy: 91% vs. 90%; incontinence procedure: 81% vs. 80% and vaginal vault suspension: 29% vs. 27%), intraoperative bleeding (298cc vs. 314cc) and perioperative complication rates (hemorrhage: 4 vs. 5 patients; wound infection: 3 vs. 2 patient; and medical complications: 4 vs. 3 patients). Overall dyspareunia rates were significantly higher postoperatively than preoperatively (16% vs. 7%,  $p = 0.001$ ). Pre- and postoperative rates of dyspareunia were not significantly different between the site-specific and posterior colporrhaphy groups. Overall rates of constipation (31% vs. 35%), diarrhea (12% vs. 10%), abdominal pain (22% vs. 17%), fecal incontinence (18% vs. 15%), and flatal incontinence (53% vs. 46%), were not significantly different pre- and postoperatively. Pre- and postoperative rates of these symptoms were not significantly different between the site-specific and posterior colporrhaphy groups.

### **Concluding message**

Discrete site-specific defect repair of Denonvillier's fascia is associated with significantly higher objective and subjective recurrence rates as compared to the standard posterior colporrhaphy at one year of follow-up. Overall rates of dyspareunia increase following rectocele repair while bowel dysfunction rates do not significantly change irrespective of the surgical technique used. Site-specific defect repair is not superior to standard posterior colporrhaphy with regard to long-term postoperative dyspareunia or bowel dysfunction. These techniques should be further evaluated using randomized controlled trials.

### **References**

1. An anatomic and functional assessment of the discrete defect rectocele repair. Am J Obstet Gynecol 1998; 179:1451-6.
2. The anatomic and functional outcomes of defect-specific rectocele repairs. Am J Obstet Gyencol 1999; 181: 1353-8.