

## LONG-TERM ANATOMIC OUTCOME OF DISCRETE SITE-SPECIFIC DEFECT REPAIR VERSUS STANDARD POSTERIOR COLPORRHAPHY FOR THE CORRECTION OF ADVANCED RECTOCELE: A 1 YEAR FOLLOW-UP ANALYSIS

### Aims of Study

Repair of discrete site-specific defects in the Denonvillier's "fascia" has been advocated as a surgical method for correction of advanced rectocele. Some investigators have reported a more favorable subjective outcome for this method with regards to bowel symptoms and sexual function, and similar anatomic outcome as compared to the standard posterior colporrhaphy (1, 2). All of these reports, however, have been descriptive and no comparative studies have been published. The current study compares anatomic outcomes of these two surgical techniques 1 year postoperatively.

### Methods

Charts of all patients who underwent surgical repair for advanced rectocele by either standard posterior colporrhaphy or by the discrete site-specific defect repair techniques at a single institution between January 2000 and June 2001 were systematically reviewed. Primary outcome measures recorded were preoperative and 1-year postoperative pelvic exams by the Baden-Walker and POP-Q techniques. Concomitant procedures, estimated blood loss and complication rates were recorded. Statistical analysis was performed using the student t-test for continuous variables; and Chi-square and Fisher-exact tests for non-parametric variables. Logistic regression analysis, with rectocele recurrence as the dependent variable, was used to screen each risk factor separately for an association with this outcome.

### Results

During this time period, 97 patients underwent standard posterior colporrhaphy and 116 patients underwent discrete site-specific defect repair for correction of advanced rectocele. Standard posterior colporrhaphy was performed by direct plication of the endopelvic connective tissues in the midline using a continuous imbricating 0-Vicryl suture or by several single horizontal mattress sutures. Site-specific defect repair was performed as previously described (1,2) including identification and closure of all discrete defects found in the Denonvillier's "fascia" after its dissection away from the overlying vaginal epithelium. During this study period, all site-specific repairs consisted of reinforcement of the Denonvillier's "fascia" layer to the perineal body and laterally to the endopelvic connective tissues and levator musculature.

One year postoperative surveillance was available for 59 patients following discrete site-specific defect repair and 53 patients following posterior colporrhaphy. Age (72 vs. 70 yrs), parity (2.61 vs. 2.86) BMI (26.8 vs. 26.2) and preoperative degree of prolapse (2<sup>nd</sup> degree: 27% vs. 25%; 3<sup>rd</sup> degree: 22% vs. 17%; 4<sup>th</sup> degree: 51% vs. 58%) were not significantly different between the site-specific defect repair and the posterior colporrhaphy groups. Associated procedures were similar in both groups (hysterectomy: 35% vs. 29%; anterior colporrhaphy: 95% vs. 93%; incontinence procedure: 89% vs. 87% and vaginal vault suspension: 39% vs. 31%). Estimated blood loss (302cc vs. 281cc) and intraoperative complication rates (including hemorrhage: 2 vs. 3 patients; wound infection: 2 vs. 1 patient; and medical complications: 3 vs. 2 patients) were not significantly different in the site-specific defect repair vs. the standard posterior colporrhaphy groups.

At one year of follow-up, recurrence of rectocele beyond the midvaginal plane ( $\geq 2^{\text{nd}}$  degree) was noted in 7 patients (13%) from the posterior colporrhaphy group and 19 patients (32%) from the site-specific defect repair group ( $p=0.015$ ) (Table 1). Postoperative Ap (-2.36 vs. -2.00 cm) and Bp (-2.43cm vs. -2.09 cm) indicated a trend towards less prolapse in the posterior colporrhaphy group, however, these differences were not statistically significant. Most recurrences in both the posterior colporrhaphy (78%) and the site specific defect repair (81%) groups were asymptomatic.

Table 1: One year postoperative anatomic outcome following posterior colporrhaphy versus site specific defect repair

Outcome measure	Post. Colporrhaphy (N=53)	Site-Specific Repair (n=59)	P
<b>Preoperative</b>			
Rectocele*	53 (100%)	59 (100%)	1.0
Ap point	-0.86 ± 0.25	-0.79 ± 0.17	0.79
Bp point	-0.47 ± 0.18	-0.61 ± 0.18	0.80
<b>One year postoperative</b>			
Rectocele*	7 (13%)	19 (32%)	<b>0.015*</b>
Ap point	-2.36 ± 0.17	-2.00 ± 0.20	0.19
Bp point	-2.43 ± 0.17	-2.08 ± 0.18	0.19
Blood loss (mL)	281 ± 20	302 ± 25	0.51

\* 2<sup>nd</sup> degree and above

\*A statistically significant difference

### **Conclusions**

These results suggest that site specific defect repair for advanced rectocele is associated with a significantly higher long term anatomic recurrence rate as compared to the standard posterior colporrhaphy. These findings should be weighed against the potential subjective benefits of the site specific defect repair technique.

### **References**

1. Porter W, Steele A, Walsh P, Kohli, N, Karram M. The anatomic and functional outcomes of defect-specific rectocele repairs. *Am J Obstet Gynecol* 1999; 181: 1353-8
2. Kenton K, Shott S, Brubaker L. Outcome after rectovaginal fascia reattachment for rectocele repair. *Am J Obstet Gynecol* 1999; 181: 1360-63.