545

Kaser D[1], Kinsler E[2], Mackenzie T[2], Hanissian P[2], Strohbehn K[2], Whiteside J[2]
1. *Dartmouth Medical School,* ***2.*** *Dartmouth-Hitchcock Medical Center*

ANATOMIC AND FUNCTIONAL OUTCOMES OF SACRAL COLPOPEXY WITH OR WITHOUT CONCOMITANT POSTERIOR COLPORRHAPHY IN WOMEN WITH PELVIC ORGAN PROLAPSE

Hypothesis / aims of study: There is no post-operative difference in pelvic floor topography or bowel symptomatology in women with pelvic organ prolapse treated by sacral colpopexy plus posterior colporrhaphy and those treated by sacral colpopexy alone.
In women with advanced pelvic organ prolapse (Stage II-IV), the following aims were evaluated in this study:

1. To determine whether sacral colpopexy with or without concomitant posterior repair affects posterior vaginal wall anatomy as measured by changes in pre-operative and post-operative POP-Q scores (Ap and Bp, specifically)
2. To compare functional bowel outcomes in women treated by sacral colpopexy plus colporrhaphy versus those treated by sacral colpopexy alone

Study design, materials and methods: Retrospective cohort study of 258 women with pelvic organ prolapse treated with at least a sacral colpopexy at a single referral institution between 2002 and 2007. A comprehensive chart review was performed of women who underwent sacral colpopexy (SCP) with or without a posterior colporrhaphy (PC) by one of three surgeons. Physician-recorded standardized bowel symptoms included defecatory urgency, fecal incontinence, straining, incomplete bowel emptying, splinting, presence of hard or loose stools, and regular use of laxatives. Six-week post-operative POP-Q scores and standardized bowel symptoms were recorded and compared to initial visit findings between women with and without PC. Vaginal topography and bowel symptoms, before and after PC, were compared using t-test and chi-square tests, with adjusted comparisons done using linear regression.

Results**:** 121/258 women were treated by SCP plus PC, while 137/258 women were treated by SCP alone. The two groups were similar in terms of age (54 vs. 56, p=0.22) and POP-Q stage (p=0.087). Forty-three percent of women in the SCP plus PC group had stage II prolapse, compared to 52% of women in the SCP alone group. Body mass index was significantly associated with performance of PC (28.8 vs 27.0, p = 0.007). The rates of PC differed significantly (p<0.0001) between three surgeons (rates of 22%, 56% and 58%).

The anatomic outcomes of surgery can be found in Table 1. The mean reduction in Ap was significantly greater in the SCP plus PC group (1.9 vs. 1.1 cm, p = 0.003). PC was also associated with a greater mean reduction in Bp (2.7 vs. 1.7, p = 0.0019). These differences did not persist when the effect of pre-operative values were considered.

Table 1. Comparison of pre-operative and post-operative POP-Q scores stratified by surgery

	Pre-operative			Post-operative		
	SCP + PC (n=120)	SCP alone (n=134)	p value	SCP + PC (n=116)	SCP alone (n=129)	p value
Mean Ap	- 0.5	- 1.3	<0.0001	- 2.4	- 2.4	0.6
Mean Bp	0.3	- 0.8	0.0006	- 2.4	- 2.5	0.7

Functionally, several symptoms were more common pre-operatively in the group treated by SCP plus PC. These included incomplete emptying (39% vs. 18%, p=0.0004), straining (40% vs. 27%, p=0.04), and splinting (25% vs. 8%, p=0.0005). There were no differences, however, in post-operative bowel symptoms between the two groups.

Interpretation of results: In women with posterior vaginal wall prolapse, the anatomic outcome of SCP plus PC was equivalent to SCP alone. Likewise, there were no functional benefits to performance of PC with SCP. These data support SCP alone as the surgical intervention for women with combined apical and posterior vaginal wall prolapse, regardless of pre-operative posterior vaginal wall support or bowel symptoms.

Concluding message: The role of posterior colporrhaphy in combination with sacral colpopexy for the correction of posterior vaginal wall prolapse is in doubt both with regard to changes in vaginal topography and functional bowel outcomes.

Specify source of funding or grant	**Hitchcock Foundation, Student Research Award 2008-2009 (Lebanon, NH 03756)**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Committee for the Protection of Human Subjects (Dartmouth College)**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**No**