

DO ALTERATIONS IN VAGINAL DIMENSIONS FOLLOWING PELVIC RECONSTRUCTIVE SURGERIES AFFECT THE RISK FOR DYSPAREUNIA?

Hypothesis / aims of study

Few studies have addressed the questions of how pelvic reconstructive surgeries alter vaginal dimensions, and if such alterations affect the risk for postoperative dyspareunia. In this study we aimed to answer these questions based on a large cohort of patients.

Study design, materials and methods

Office and hospital charts of all sexually active patients who underwent pelvic reconstructive surgery in our institution between July 1988 and June 2002 and returned for follow-up one year postoperatively were systematically reviewed. Recorded data included pre- and postoperative pelvic exams by the POP-Q technique, and surgical procedures performed. Transvaginal length (TVL) and genital hiatus (GH) values were used to estimate pre- and postoperative vaginal dimensions. The relative changes in these dimensions were calculated as: (preoperative value – postoperative value)/ preoperative value. All patients answered questionnaires about the presence and severity of dyspareunia pre- and postoperatively using a 0-4 Likert scale. Data were analyzed using the Pearson's correlation test, student t-test for continuous variables and Chi-square test for non-parametric variables. We used a logistic regression model, with dyspareunia as the dependent variable, in order to screen each risk factor separately for an association with this outcome.

Results

Table 1: Pre- and postoperative vaginal dimensions and rates of dyspareunia (n=228)

Variable	Preoperative	Postoperative	%Change	P
TVL (cm)	8.8 ± 1.5	7.6 ± 1.2	-14%	0.001*
GH (cm)	3.5 ± 0.5	2.7 ± 0.4	-23%	0.001*
Dyspareunia Rates (%)	7.0	16	+ 9%	0.001*

TVL = Transvaginal length; GH = Genital hiatus. * statistically significant.

Interpretation of results

The study included 228 patients aged 44-83 years of age. Surgeries included transvaginal hysterectomy (33%), anterior and/or posterior colporrhaphy (92%), vaginal vault suspension (32%), transvaginal sling procedures (78%) Burch retropubic urethropexy (6%) and paravaginal repairs (6%). Overall dyspareunia rates were significantly higher postoperatively than preoperatively (Table 1). No specific surgery was associated with higher rates of postoperative dyspareunia. TVL and GH dimensions were significantly shorter postoperatively than preoperatively. No correlation could be demonstrated between either TVL (p=0.81), GH (p=0.41) or recurrence of pelvic organ prolapse (p=0.31), and the risk for postoperative dyspareunia. We could not identify any threshold values for vaginal dimensions, below which dyspareunia was more likely to occur.

Concluding message

Pelvic reconstructive surgeries are associated with increased risk for dyspareunia. While these surgeries reduce vaginal dimensions, this may not account for the increased rates of dyspareunia in these patients. Other etiologies for dyspareunia (such as vaginal scarring, creation of bands, altered innervation and blood supply) should be investigated in future studies.