

PELVIC RELAXATION IN NULLIPAROUS POSTMENOPAUSAL WOMEN AND THEIR PAROUS SISTERS.

Aims of Study

To compare pelvic floor relaxation in postmenopausal nulliparous women and their parous sisters, in order to determine the importance of vaginal delivery in the development of pelvic relaxation disorders.

Methods

We used a matched-pair design to address these questions regarding risk factors for pelvic organ prolapse in postmenopausal women. Nulliparous postmenopausal women, who lacked the key risk factor under study (vaginal delivery), were paired with their biological sisters who had at least one vaginal delivery. Both members of the sister pair completed a study survey. The survey included questions about the presence of symptoms related to urinary incontinence and pelvic organ prolapse, a social impact questionnaire and questions inquiring about past medical and surgical history and medications. Study participants then underwent a clinical assessment for pelvic support. Findings on pelvic exams were recorded. Chi square analysis was used to evaluate the data for statistical significance. At the initial exam, the examiner was blinded to answers to the survey, unaware of parity of the subject and symptoms of UI or POP. In evaluation of the data, descriptive tabulations are presented of relevant demographic and clinical variables for the nulliparous women and their parous sisters. The internal review board of the University of Rochester has approved this study.

Results

A total of 27 sister pairs are reported on in this study. The mean parity is 3.7 (SD 2.2) in the parous sister group. There are no statistically significant differences in demographic variables between the nulliparous and the parous group. Support of anterior vaginal wall, posterior wall and apex are compared. The majority of sister pairs are found to have identical staging of the anterior wall and the apex. Only two sister pairs (7.4%) differed by two stages in relaxation of anterior vaginal wall and apex respectively ($p = .69$). On the other hand, when comparing relaxation of the posterior vaginal wall 7 pairs (25.9%) differed by two or more stages ($p = .065$). In six of the seven pairs the parous sister had the higher staged rectocele. There was no correlation between continence status and finding of pelvic relaxation on physical exam.

Conclusions

Damage to the pelvic floor at time of vaginal delivery is regarded as the primary risk factor for pelvic floor relaxation. Our findings do not support this general assumption. The concordance of pelvic support of the anterior vaginal wall and apex between sister-pairs is striking. This might suggest a familial predisposition for pelvic relaxation disorders. Only in the posterior compartment did the difference in exams approach significance, which potentially could be the sequelae of trauma at time of vaginal delivery.