

## PREOPERATIVE PATTERNS OF PHYSICAL ACTIVITY IN WOMEN PLANNING SACROCOLPOPEXY FOR PELVIC ORGAN PROLAPSE

### Hypothesis / aims of study

Resumption of physical activities is a goal for two-thirds of women undergoing reconstructive pelvic surgery [1]. However, little is known about the impact of pelvic organ prolapse on physical activity. The aims of this cross-sectional study were to estimate, in a cohort of women planning sacrocolpopexy for pelvic organ prolapse (POP), the 1) frequency of physical activities and exercise, 2) the degree of interference attributed to POP, and 3) the association between physical activity and POP-Q stage.

### Study design, materials and methods

Women with POP self-reported physical activities during the previous 3 months before enrollment in a randomized surgical trial (CARE). Based on the protocol for this randomized surgical trial, participation was limited to women without symptoms of stress incontinence [2]. Severity of prolapse was assessed using the POP-Q classification system. Pelvic floor symptoms were assessed with Pelvic Floor Distress Inventory (PFDI) and a summary score was calculated for each participant. Recreational activity was assessed using a modified Godin Leisure-Time Exercise Questionnaire [3] and a summary activity score was calculated for each subject. The summary activity score was used to identify women in the highest and lowest activity quartiles.

### Results

The cohort included 231 subjects with mean age 62 years and mean BMI 27 kg/m<sup>2</sup>. The distribution of prolapse severity was as follows: 27(12%) had stage II prolapse, 158 (68%) had stage III prolapse, and 46 (20%) had stage IV prolapse. A history of previous surgery for prolapse was reported by 63% of women with stage II POP, compared to 39% and 42% for stages III and IV, respectively (p=0.09). Women with stage II prolapse were younger than women with more severe prolapse (p<0.001). Also, women with Stage 2 POP, especially those with a history of prior surgery, had higher (worse) total scores on the PFDI and PFIQ than women with higher stages of POP (p=0.002). With respect to reported patterns of exercise and physical activity, only 11% reported no exercise. Most women reported engaging in mild exercise (77%; e.g., golf, walking) or moderate exercise (63%; e.g., biking, brisk walking), with 27% reporting strenuous exercise (causing sweating and increased heart rate); answers are not mutually exclusive. Women in the highest activity quartile were more likely to have education beyond high school (p=0.006), they reported higher SF-36 mental and physical component scores (p=0.02 and <0.001, respectively), and they were less likely to be current smokers (p=0.048). The summary activity score did not differ by age, comorbidity score, or POP-Q stage. The leading edge of prolapse, in cm, also did not differ by activity score quartile. Activity requiring "major effort" at least 2-3 times per month (like lifting heavy furniture, shovelling snow, or lifting >25 lbs) differed by stage (67% in stage II, 45% in stage III, and 33% in stage IV), but this was no longer statistically significant after adjusting for age (p=0.10). The proportion of subjects reporting that prolapse interfered at least "some of the time" with specific activities is as follows: housework or yard work, 43.7%; job outside the home (n=147), 29.3%; exercise or physical recreation, 52.4%.

Percentage of women reporting that prolapse interfered "most/all of the time" with each type of activity or who "no longer do these activities [because of prolapse]".

Activity type	Stage II	Stage III	Stage IV	Total
Housework or yard work	33.3%	14.0%	13.3%	16.2%
Job outside the home	11.8%	12.7%	11.5%	11.5%
Exercise/recreation	48.1%	19.7%	26.7%	24.5%

Compared to women with more advanced POP, women with stage II POP were **more** likely to report that prolapse interfered substantially with their abilities to do house or yard work ( $p=0.02$ ) and exercise or recreation ( $p=0.0004$ ).

#### Interpretation of results

Self-reported frequencies of exercise, housework, employment, and recreational activities did not differ by POP stage. However, women with stage II POP were more likely to feel that POP interferes with physical activities and exercise. This may be because women with stage II POP were younger, reported more pelvic floor symptoms, and were more likely to have had prior prolapse surgery. These factors might influence activity patterns and women's expectations and behaviours.

#### Concluding message

In this population of women planning surgery for POP, a sizeable minority reported that prolapse interferes substantially with physical activities and exercise. These data suggest that prolapse has an important impact on women's lifestyles and activity patterns.

- [1] Patient-centered goals for pelvic floor dysfunction surgery: what is success, and is it achieved? *Am J Obstet Gynecol.* 2002 Jul;187(1):88-92.
- [2] A randomized trial of colpopexy and urinary reduction efforts (CARE): design and methods. *Control Clin Trials.* 2003 Oct;24(5):629-42.
- [3] A simple method to assess exercise behavior in the community. *Can J Appl Sport Sci.* 1985 Sep;10(3):141-6.

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