

PELVIC FLOOR SYMPTOMS AND SEVERITY OF THE PELVIC ORGAN PROLAPSE

Hypothesis / aims of study

More than 50% of women with symptoms of pelvic organ prolapse (POP) report at least one symptom of other pelvic floor disorder¹, but data about relationship between the severity of prolapse and reported pelvic floor symptoms are very sparse.

The aim of the study was to estimate whether POP severity (anatomic stage) is related to different low urinary tract, anorectal and sexual symptoms evaluated with a validated questionnaires.

Study design, materials and methods

Multicentric cross-sectional study of 521 women seeking care for pelvic floor problems in 35 specialized urogynecological clinics. Patients answered the Spanish validated version of the Epidemiology of Prolapse and Incontinence Questionnaire² (EPIQ) to detect symptoms of POP, stress urinary incontinence (SUI), overactive bladder (OAB), anal incontinence (AI), obstructed defecation (OD) and sexual problems (FSD). The severity of the urinary incontinence (UI) and the OAB symptoms were measured by the Spanish validated versions International Consultation on Incontinence Questionnaire-Urinary Incontinence short form (ICIQ-UI SF) and the Bladder Control Self Assessment Questionnaire (BSAQ). The POP anatomic severity was measured by the anatomic stage of the POP, determined in pelvic examination. All pelvic examinations were performed in dorsal lithotomy position, using a maximum straining effort. Based on the pelvic organ prolapse quantification examination values, stages 0 to IV were assigned to each vaginal compartment (anterior, posterior, uterus-cervix, or the apex of the vagina) in each patient.

A *maximum POP stage* (MPS) was assigned to each patient, for the analyses the patients were distributed in three groups according to the MPS, in one or more of the three compartments. In group A were included patients with no POP and stage I ; in group B patients with stage II (“no descent of the vaginal walls beyond the hymen”) and in group C patients with stage III or IV. Statistical analysis were carried out to investigate the variables associated to the MPS; chi-square test was used for categorical variables: age over 55 years; menopause (yes/no); obstetric personal history -*numbers of vaginal deliveries (1, 2, 3 or more), caesareans (yes/no), forceps (yes/no), episiotomy (yes/no), tears (yes/no)-*; symptom of vaginal bulge (yes/no); symptom of vaginal bulge during sexual intercourse (yes/no) ; symptoms of low urinary tract symptoms and anorectal (yes/no):*stress urinary incontinence, urgency, frequency, nocturia, urgency urinary incontinence, voiding difficulty and obstructed defecation and AI symptoms* . Kruskal-Wallis test was used for ICIQ-UI SF and BSAQ scores. Finally, an ordered logistic regression analysis was fitted for the MPS.

Results

Pelvic examination demonstrated anatomic POP in 303 patients of the 521 included in this study (stage from I to IV). According to the MPS stage, 288 women (56.25%) were classified in the group A; 102 (19.92%) in the group B; and 122 (28.83%) in the group C. Anterior vaginal compartment defect was observed in 267 of the 303, (88.11%)patients; 153 (50.89%) had posterior compartment defect and 143 (47.19%) in central compartment. Age over 55 years, menopause, higher number of vaginal deliveries, were positively associated to higher MPS ($p < 0.05$). Presence of symptoms (EPIQ questionnaire) : “*sensation that there is a bulge or something falling out from the vagina*” and “*feeling of a bulge in my vaginal area makes it difficult for me to have sexual relations*” were associated to MPS ($p < 0.05$). Symptom of stress urinary incontinence were negatively associated to MPS ($p < 0.05$). The total scores of ICIQ-UI SF and BSAQ were not statistically significant ($p < 0.05$) associated to MPS. We did not find also any association with bowel symptoms and MPS. Although the proportion of patients with other OAB symptoms (urgency, frequency and urgency incontinence) was very high, this proportion was not significantly increased according to the anatomic prolapse stage and scores of were not statistically significant ($p < 0.05$) associated to MPS. Nocturia and voiding difficulties were positively associated to MPS. (Table 1).

| Symptoms EPIQ* | | Maximum POP stage (MPS) | | | p |
|--|-----|-------------------------|-------------|-----------------|-----------------|
| | | A (stage 0-I) | B(stage II) | C (stageIII-IV) | |
| “ <i>sensation bulge in vagina or that something is falling out vagina</i> ” | No | 245 | 36 | 10 | <0.01 |
| | Yes | 40 | 65 | 111 | |
| “ <i>feeling of a bulge makes difficult to have sexual relations</i> ” | No | 250 | 72 | 53 | <0.01 |
| | Yes | 14 | 18 | 42 | |
| “ <i>leakage related to activity, coughing, or sneezing</i> ” | No | 96 | 47 | 59 | 0.01 |
| | Yes | 189 | 55 | 62 | |
| “ <i>difficulty emptying bladder</i> ” | No | 207 | 70 | 58 | <0.01 |
| | Yes | 79 | 30 | 64 | |
| Nocturia (>1) | No | 211 | 68 | 69 | 0.01 |
| | Yes | 74 | 33 | 49 | |
| Urgency | No | 41 | 14 | 25 | 0.240 |
| | Yes | | | | |

| | | | | | |
|------------------------------|------------|------------|-----------|-----------|-------|
| | Yes | 246 | 88 | 97 | |
| Frequency | No | 92 | 37 | 44 | 0.525 |
| | Yes | 194 | 64 | 74 | |
| Urgency urinary incontinence | No | 88 | 31 | 44 | 0.545 |
| | Yes | 197 | 71 | 78 | |

* Epidemiology of prolapse and incontinence questionnaire.

Variables independently associated to MPS in the regression model fitted were: age, symptom of vaginal bulge and difficult to have sexual relations because feeling of a bulge (Table 2).

| Table 2 | coef | Std.Error | p | 95% Conf. Interval | |
|---|--------|-----------|--------|--------------------|--------|
| Age | 0.4568 | 0.0096 | <0.001 | 0.0267 | 0.0646 |
| Sensation of vaginal bulge | 2.7424 | 0.2621 | <0.001 | 2.2287 | 3.2561 |
| Difficult sexual relation because vaginal bulge | 0.8663 | .2973 | 0.004 | 0.2836 | 1.4491 |

Interpretation of results

Patients with POP have associated different pelvic floor symptoms, however the only symptom that has this independent association to the anatomic stage of prolapse is the “*sensation of vaginal bulge*” and the specific sexual difficulties because this sensation. When descent of the vaginal walls beyond the hymen was identified in pelvic examination (stage III-IV), 90 % of the women had “*sensation of vaginal bulge*”.

In this study we demonstrate that in patients seeking care for pelvic floor problems, most symptoms often attributing to POP, are not independently associated to worsening pelvic organ support. This information is important when we try to identify pre-operative goals for patients undergoing POP surgery.

Concluding message

The POP severity, measured by the anatomic stage, is only independently associated with symptoms of sensation of vaginal bulge and sexual difficulties because sensation of vaginal bulge.

References

1. Lawrence et al. Obstet Gynecol. 2008;111(3):678-85.
2. Lukacz et al. Int Urogynecol J Pelvic Floor Dysfunct. 2005 ;16(4):272-84

| | |
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| <i>Is this a clinical trial?</i> | No |
| <i>What were the subjects in the study?</i> | HUMAN |
| <i>Was this study approved by an ethics committee?</i> | Yes |
| <i>Specify Name of Ethics Committee</i> | Ethics Committee of Corporació Sanitària Clínic. Barcelona.Spain |
| <i>Was the Declaration of Helsinki followed?</i> | Yes |
| <i>Was informed consent obtained from the patients?</i> | Yes |