

COMPLEXITY OF PELVIC ORGAN PROLAPSE CAN BE MORE IMPORTANT TO IMPACT THE QUALITY OF LIFE THAN STAGING

Hypothesis / aims of study

Pelvic organ prolapse (POP) is a condition of varying degrees of complexity, characterized by different stages and involving various combinations of alterations (anterior, apical or posterior). The relationship between POP severity to quality of life has been evidenced for some authors [1, 2]. However the impact of these different situations in the quality of life has not been still established. The study aims to analyze the association between quality of life impairment with POP of different degrees of complexity and staging.

Study design, materials and methods

Sixty-five women with bulge symptoms and staged as Pelvic Organ Prolapse Quantification System (POP-Q) stage 2 (n=15), stage 3 (n=30), and stage 4 (n=20) were included in this cross-sectional observational study. It was approved by the Institutional Ethics Committee and all persons gave their informed consent prior to their inclusion in the study. Women with neurological disease or collagen, anal incontinence, pregnant women who had given birth or undergone any gynecological surgery 12 months before were excluded. All participants answered the Prolapse Quality of life Questionnaire (P-QoL). The scores for each domain range from 0-100. High total score indicates a greater impairment of quality of life, while low score indicates good quality of life. All patients were examined in lithotomy position and in rest to define the POP-Q. All patients were examined by the same investigator. For statistical analysis non-parametric Kruskal-Wallis tests and multivariate linear regression were used. Statistical tests were performed with a type 1 error set at $\alpha < 0.05$ and the bold was used to identify the statistical significance.

Results

The mean age was 64 (range 35 to 89) years old and mean body mass index (BMI) was 25.8 (range 16.8 to 40.8). Fifty-eight women (90 %) were postmenopausal, 20 (29.3 %) had undergone hysterectomy, 35 (53.9 %) complained of stress urinary incontinence (SUI) and 49 (75.4 %) complained of urgency urinary incontinence (UUI). Older women had more advanced stages of prolapse ($p=0.006$). Women with higher parity had higher staging of prolapse ($p=0.03$). Vaginal delivery was also associated with more advanced stages of POP ($p=0.008$). The complaints of SUI were more common in women with lower stages ($p=0.01$). BMI, the number of cesarean sections, the largest newborn weight and surgeries for POP and SUI were similar among prolapse stages. Patients with concomitant 3 POP had worse quality of life scores than patients with only 1 POP in P-QoL domains as "severe measures", "social limitations" and "prolapse impact", "role limitations", and "physical limitations". The domains "personal relationship", "emotion" and "sleep/energy" did not associate with staging or POP complexity ($p > 0.05$). There was no difference between patients with only 1 and 2 POP. Staging was not associated with any domains of the P-QoL (table 1).

Table 1: Association of the P-QoL domains to staging and complexity of POP according to the presence of only one vaginal prolapse (anterior, posterior or apical), the combination of two or to the presence of three types of prolapse simultaneously. The scores obtained in patients with 1 POP were used to determine the independent variable. Sociodemographic and clinical variables were used to control.

	Role Limitation		Severe Measures		Social Limitation		Prolapse Impact		Physical Limitation	
	Coef.	<i>p</i>	Coef.	<i>p</i>	Coef.	<i>p</i>	Coef.	<i>p</i>	Coef.	<i>p</i>
Two POP*	0.61	0.39	0.65	0.20	0.62	0.39	0.18	0.35	0.61	0.38
Three POP*	2.00	0.00	1.08	0.04	2.18	0.01	0.39	0.01	2.60	0.00
Age	2.32	0.17	1.81	0.09	1.57	0.31	0.47	0.24	1.35	0.41
Scholarity**	0.06	0.82	-0.41	0.02	0.40	0.12	0.03	0.58	0.15	0.54
Marital Status***	0.28	0.61	-0.09	0.82	-0.13	0.81	0.09	0.43	-0.23	0.64
BMI	0.06	0.20	0.02	0.60	0.05	0.26	0.02	0.06	0.06	0.17
Vaginal Delivery	-0.05	0.53	-0.03	0.55	-0.02	0.81	0.00	0.97	-0.01	0.85
Parity****	-0.33	0.42	-0.00	0.98	-0.35	0.36	-0.11	0.29	-0.20	0.64
SUI (0=No/1=Yes)	-0.12	0.84	0.06	0.90	0.58	0.23	-0.00	0.98	0.54	0.31
UUI (0=No/1=Yes)	0.62	0.31	0.05	0.91	0.91	0.14	0.00	0.96	0.58	0.32
Prolapse Stage (0-4)	-0.51	0.21	-0.17	0.66	-0.01	0.98	-0.02	0.88	-0.67	0.06
Constant	-7.50	0.32	-4.15	0.40	-7.74	0.28	1.76	0.31	-4.04	0.59

*1 POP: Dummy=1 if the patient had only one type of POP (Ba or C/D or Bp points > -1) and dummy=0 if ≠ 1 POP; 2 POP: Dummy=1 if the patient had 2 types of POP [Ba or C/D or Bp points > -1 (2 options)] and dummy=0 if ≠ 2 POP; 3 POP: Dummy=1 if the patient had all type of POP (Ba and C/D and Bp points > -1) and

dummy =0 if ≠ 3 POP.

** 1: Illiterate; 2: through 4th grade; 3: 5th to 8th grade; 4: high school; 5: academic

***0= single, divorced or widow / 1= married, stable union

**** 0= Nulliparous; 1= 1 up to 4 deliveries; 2= 5 or more deliveries

Interpretation of results

Some aspects of quality of life were compromised in subjects with more complex prolapses in comparison to more simple ones and these aspects might not be justified by aging, vaginal deliveries, parity, obesity, urinary leak or staging. These results suggest that the complexity of the prolapse may be more important to impact the quality of life than staging. Similar studies were not found to compare these results.

Concluding message

The presence of concomitant anterior, apical and posterior POP is associated with worse quality of life rather than higher staging.

References

1. Digesu GA, Chaliha C, Salvatore S, Hutchings A, Khullar V (2005) The relationship of vaginal prolapse severity to symptoms and quality of life. BJOG 112:971-976
2. Cetinkaya SE, Dokmaci F, Dai O (2013) Correlation of pelvic organ prolapse staging with lower urinary tract symptoms, sexual dysfunction, and quality of life. Int Urogynecol J 24:1645-1650

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