

## STRONG ASSOCIATION BETWEEN PROLAPSE-RELATED SYMPTOM SCORES AND DEPRESSIVE SYMPTOMS AMONG PELVIC ORGAN PROLAPSE PATIENTS – A CROSS-SECTIONAL STUDY

### Hypothesis / aims of study

The lifetime prevalence of Pelvic Organ Prolapse (POP) ranges from 30% to 50%. Evidence has shown that POP can have a high impact on quality of life, social relationships and self-image. The prevalence of depressive symptoms within this clinical population is high (20% to 71%) but very variable depending on the study design and thus there is no consensus whether women with prolapse have more depressive symptoms than similar women without prolapse [1]. There is also a lack of information in regards to depressive symptoms in Chilean patients with Pelvic Floor Disorders actively seeking treatment.

In this study we evaluated the prevalence of depressive symptoms among POP patients seeking treatment, and its possible associations with prolapse-related factors. We hypothesized that these POP patients will have higher depressive symptoms than the general population; and depressive symptoms will be associated with worse outcomes in symptoms scores and quality of life.

### Study design, materials and methods

This cross-sectional report is part of a larger prospective study evaluating the impact of pessary use among patients with POP seeking treatment in a public hospital in Chile. Patients have been recruited since September 2013. POP grade was evaluated by POP-Q; POP symptoms were assessed using the PFDI-20; and prolapse-related quality of life was measured by the Prolapse Quality-of-Life Questionnaire (P-QoL). Depressive symptoms were evaluated by the 12-item Goldberg Health Questionnaire (GHQ-12), a psychologic health screening test. A GHQ-12 score of 5 or more was labeled as “positive”. In a preliminary study (unpublished data) we determine that the sample size needed to find correlation between a positive GHQ-12 and higher score in the PDFI-20 Questionnaire was 78 patients. We used Student’s t-Test, Mann-Whitney U, Chi-Square and Fisher’s Exact Test as appropriate. Methods, definitions and units were according to the standards jointly recommended by the ICS and IUGA.

### Results

This study included 78 women with POP; the mean age was 64.3 ± 9.5 years; the mean body-mass index (BMI) was 29.7 ± 4.6; the mean parity was 3.6 ± 2.2; 54 (69.2%) patients had a POP-Q stage of 3 or more; 38 (48.7%) patients had a GHQ-12 “positive” and 40 (51.3%) patients had a GHQ-12 “negative”. The univariate analysis by GHQ-12 status is shown in Table 1.

GHQ-12 status was associated with higher PDFI-20 scores (p=0.048) but not with CRADI-7. At the same time it was associated with higher scores in all the domains of the P-QoL but not with the “Personal Limitations” and “Severity Measures” domains.

### Interpretation of results

In this single-site clinical sample of women seeking treatment for POP, a “positive” screening for depressive symptoms at baseline was associated with worse results in PDFI-20 - specifically in UDI-6 and POPDI - and P-QoL. This information could be clinically useful for physicians to motivate a more extensive interview for depressive symptoms and eventually to refer the patients to a specialist. The study is limited by lack of: control group, diagnostic interview for depressive symptoms, analysis between GHQ-12 continuous score and prolapse-related outcomes. We hope, at completion of the larger prospective study, to identify longitudinal clinical correlates associated with pessary use for POP, depressive symptoms, and quality of life.

### Concluding message

Depressive symptoms are highly prevalent in POP patients and these symptoms are related to worse scores in PDFI-20 and P-QoL.

**Table 1: Univariate Analysis by GHQ-12 Results.**

	GHQ-12 Negative (n= 40)	GHQ-12 Positive (n= 38)	p-value
Age (years) <sup>1</sup>	64.1 ± 8.9	64.4 ± 10.3	0.89 <sup>a</sup>
Parity <sup>2</sup>	3 (2-4)	3 (3-5)	0.15 <sup>b</sup>
Patients w/ Forceps Delivery	8 (20%)	10 (27%)	0.64 <sup>d</sup>
Newborn Max. Weight (kg) <sup>2</sup>	3550 (3200-3850)	3755 (3600-3950)	0.084 <sup>b</sup>
Patients w/ History of AH/VH	7 (17.5%)	6 (15.8%)	0.92 <sup>d</sup>
Patients w/ Menopause	36 (94.7%)	32 (88.9%)	0.42 <sup>c</sup>
Patients w/ Previous POP or SUI Surgery	4 (10%)	2 (5.2%)	0.67 <sup>c</sup>
Patients w/ Active Tobacco Use	5 (12.5%)	10 (27%)	0.19 <sup>c</sup>
Patients Sexually Active	17 (42.5%)	15 (40.5%)	0.95 <sup>d</sup>

Pts. w/ Leading Edge Beyond the Hymen		33 (82.5%)	33 (86.8%)	0.82 <sup>d</sup>
Patients w/ Apical Defect		32 (82%)	26 (68.4%)	0.26 <sup>d</sup>
POP-Q at Baseline (number of patients)				
Stage II		13 (32.5%)	11 (28.9%)	0.76 <sup>d</sup>
Stage III		22 (55%)	20 (52.6%)	
Stage IV		5 (12.5%)	7 (18.4%)	
PDFI 20	Global <sup>2</sup>	75 (25-143.7)	100 (50-156.2)	0.048 <sup>b</sup>
UDI 6 <sup>2</sup>		25 (0-50)	50 (25-75)	0.016 <sup>b</sup>
POPDI <sup>2</sup>		25 (0-50)	50 (25-75)	0.043 <sup>b</sup>
CRADI 7 <sup>2</sup>		25 (0-25)	0 (0-31.2)	0.89 <sup>b</sup>
P-QoL (score)				
General Health Perception <sup>2</sup>		50 (25-75)	75 (50-75)	0.009 <sup>b</sup>
Prolapse Impact <sup>2</sup>		66.6 (33-100)	100 (66.6-100)	0.026 <sup>b</sup>
Role Limitations <sup>2</sup>		50 (0-100)	100 (66-100)	<0.001 <sup>b</sup>
Physical Limitations <sup>2</sup>		33 (4.1-100)	100 (66.6-100)	0.002 <sup>b</sup>
Social Limitations <sup>2</sup>		0 (0-44)	61 (33.3-88)	<0.001 <sup>b</sup>
Personal Limitations <sup>2</sup>		0 (0-66.6)	33.3 (0-100)	0.22 <sup>b</sup>
Emotions <sup>2</sup>		33.3 (11-75)	88.8 (66.6-100)	<0.001 <sup>b</sup>
Sleep/Energy <sup>2</sup>		33.3 (16-62.5)	75 (50-100)	0.002 <sup>b</sup>
Severity Measures <sup>1</sup>		48.3 ± 33.2	52.4 ± 25.2	0.54 <sup>a</sup>

1: mean ± SD; 2: median (IQR)

a: Student's t-Test; b: Mann-Whitney U; c: Fisher's Exact Test d: Chi-Square.

#### References

1. Ghetti et al Int Urogynecol J. 2010 Jul;21(7):855-60

#### Disclosures

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