583

Alves A T[1], Jácomo R H[2], Bontempo A P S[1], Silva R C M[1], Gomide L B[1], Rett M T[3], Souza J S[1], Teixeira N C[1], Garcia P A[1]

1. *UnB - University of Brasilia,* ***2.*** *HUB - University Hospital of Brasilia,* ***3.*** *UFS - Federal University of Sergipe*

OVERACTIVE BLADDER SYNDROME AND DEPRESSIVE SYMPTOMS - THERE IS A RELATIONSHIP?

Hypothesis / aims of study

Overactive bladder syndrome (OBS) is characterized by the frequent urge to urinate with or without incontinence, generally accompanied by pollakiuria and nocturia, but with no infection of the urinary tract or other causal pathological condition. The prevalence of symptoms of the lower urinary tract is greater in women than men. Among these symptoms, urinary incontinence is considered a serious problem that causes physical, psychological and sexual adversities, leading to emotional and social strain that can trigger mental disorders, such as anxiety and depression, with a negative impact on quality of life. International studies report that approximately half of all women develop urinary incontinence and present one or more episodes of depression throughout their lives. However, there is no definite conclusion regarding whether depression is a cause or consequence of OBS, which makes this relationship more complex and poorly understood. The aims of the present study were to investigate the relationship between OBS and depression among older women as well as test associations between OBS and both clinical and demographic characteristics.

Study design, materials and methods

An observational, analytical, cross-sectional study was conducted involving community-dwelling older women assisted by the Federal District Senior Healthcare Program between August 2012 and November 2013. The eligibility criteria were the female sex, age 60 years or older and absence of lower urinary tract infection (based on the results of a urinary exam [urine test and culture] and the evaluation of symptoms). The exclusion criteria were a history of treatment for OBS or depression in the previous six months, neurological disease, bladder cancer (hematuria or self-report), complaint of pain in the lower abdomen during urination for more than six months, advanced genital prolapse surpassing the vaginal opening at rest, history of pelvic radiotherapy and inability to answer the questionnaires. The Overactive Bladder Validated 8-Question Screener (OAB-V8) was used for the identification of OBS. The short version of the Yesavage Geriatric Depression Scale (GDS-15) was used to determine symptoms of depression. Clinical and demographic variables were collected through an interview involving a structured form for recording age, body mass, height, the body mass index (BMI), number of pregnancies, miscarriages and natural childbirths. The Kolmogorov-Smirnov test determined non-normal data distribution. Continuous variables were expressed as mean, median and standard deviation values and categorical variables were expressed as percentage and frequency. The sample was divided into two groups of women (with and without OBS, based on the results of the OAB-V8). The Mann-Whitney U test was used to analyze differences between the two groups regarding continuous variables and the chi-square test was used for categorical variables. Spearman's correlation coefficients were calculated to determine correlations among the variables and interpreted as follows: 0 to 0.25 = lack of correlation; 0.26 to 0.49 = weak correlation; 0.50 to 0.69 = moderate correlation; 0.70 to 0.89 = strong correlation; and 0.90 to 1.00 = very strong correlation. The tests were two-tailed and the level of significance was set to 5% ($p<0.05$).

Results

One hundred eighty-five volunteers were recruited. Six were excluded for having undergone treatment for depression in the previous six months, five were excluded for having a neurological disease, one was excluded for having bladder cancer and four were excluded for having vaginal prolapse. Thus, 169 older women composed the final sample. One hundred twenty-nine (76.3%) had symptoms of OBS (OAB-V8≥8 points) and 72 (42.6%) had symptoms of depression. Table 1 displays the clinical and demographic characteristics of the groups.

Table 1 – Clinical and demographic characteristics of study groups (n = 169)

Variable	**Older women with OBS (n = 129)**			**Older women without OBS (n = 40)**			**p-value**
	Median	**Mean**	**SD**	**Median**	**Mean**	**SD**	
Age	68.00	68.76	6.14	65.50	67.08	5.19	0.154
BMI (Kg/m²)	28.07	28.38	4.88	25.97	26.56	4.63	0.056
Pregnancies	5.00	5.09	3.51	5.00	5.80	3.18	0.217
Miscarriages	0.00	0.74	1.20	0.00	0.68	1.12	0.798
Natural childbirths	3.00	3.94	3.07	4.00	4.90	2.97	0.075

Mann-Whitney U test; BMI = body mass index; SD = standard deviation

Table 2 – Distribution of pregnancies, natural childbirths and depression in study groups (n=169)

Variable	Older women with OBS (n = 129)		Older women without OBS (n = 40)		p-value
	n	%	n	%	
Nulliparas (no pregnancies)	15	11.6	0	0	0.023
Primiparas and multiparas (≥ 1 pregnancy)	114	88.4	40	100	
No history of natural childbirth	21	16.3	0	0	0.004
History of natural childbirth	108	83.7	40	100	
Without depression (0-5 points)	65	50.4	32	80	0.003
Mild depression (6-10 points)	57	44.2	8	20	
Severe depression (≥ 11 points)	7	5.4	0	0	

Chi-square test

Table 3 – Correlations among variables (n = 169)

	OBS	Depression
OBS	-	0.354**
Depression	0.354**	-
Age	0.11	-0.036
BMI (Kg/m²)	0.167*	0.144
Pregnancy	-0.169*	-0.018
Miscarriage	-0.033	0.108
Natural childbirth	-0.176*	-0.083

Data represent Spearman's correlation coefficient (r); *p < 0.05; **p < 0.001; BMI = body mass index

Interpretation of results

In the present study, the prevalence of OBS among community-dwelling older women was high (76.3%). The present findings demonstrate a high frequency of symptoms of depression among the participants (42.6%). The older women with and without OBS analyzed in the present study did not differ significantly with regard to BMI. In the present study, greater frequencies of primiparas, mulitparas and natural childbirths were found among the women with symptoms of OBS. However, the frequencies of these characteristics were also high among the women without symptoms of OBS. The prevalence of symptoms of mild and severe depression (42.6%) was higher among the women with OBS than those without this syndrome (p = 0.003) and a weak correlation was found between depressive symptoms and OBS.

Concluding message

A high prevalence rate of OBS was found among the older women analyzed in the present study and symptoms of this syndrome were related to symptoms of mild and severe depression. However, no significant association was found between OBS and other clinical and demographic characteristics.

References

1. Kafri, R, Kodes A, Shames J, Golomb J, Melzer I. Depressive symptoms and treatment of women with urgency urinary incontinence. Int Urogynecol J. 2013; 24:1953 –1959.
2. Alves AT, Jácomo RH, Gomide LB, Garcia PA, Bontempo APS, Karnikoskw MGO. Relationship between anxiety and overactive bladder syndrome in older women. Rev. Bras. Ginecol. Obstet. online. 2014; 36 (7): 310-314.
3. Perry S, McGrother CW, Turner K. An investigation of the relationship between anxiety and depression and urge incontinence in women: Development of a psychological model. British Journal of Health Psychology. 2006; 11:463–482.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** College of Health Sciences of the University of Brasilia - UnB **Helsinki:** Yes **Informed Consent:** Yes