136

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IMPACT OF OVERACTIVE BLADDER ON FREQUENCY OF SEXUAL ACTIVITY AND ERECTILE DYSFUNCTION IN MEN: RESULTS FROM THE EPIC STUDY

<u>Hypothesis / aims of study</u>
A multinational study (5 countries) was undertaken to evaluate the prevalence and burden of overactive bladder (OAB) symptoms using the current International Continence Society (ICS) definition of OAB. The objective of this subanalysis was to evaluate the association of OAB symptoms with erectile dysfunction (ED) in men aged ≥50 years.

<u>Study design, materials and methods</u>
This was a cross-sectional, population-based survey of adults (aged ≥18 y) in Sweden, Italy, Germany, the United Kingdom, and Canada. Telephone interviews were conducted with a geographically stratified random sample of the population (N=19,165). OAB and urinary incontinence (UI) were classified according to 2002 ICS definitions. Women who were pregnant and individuals who thought they may have a urinary tract infection were not eligible for the nested case-control study. Cases were individuals with OAB symptoms and controls were randomly selected from individuals without OAB symptoms within the cohort age and gender categories.

The analyses reported here include men aged ≥50 years with OAB symptoms (n=330 cases) and without OAB symptoms (n=744 controls). The Massachusetts Male Aging Study single-question self-assessment is a validated tool used to assess ED. Men were classified as having ED if they reported minimal, moderate, or complete ED. Respondents also reported whether they had ever been diagnosed with diabetes, high blood pressure, bladder or prostate cancer, depression, or neurological conditions (eg, multiple sclerosis, stroke, Parkinson's disease). Logistic regression models were used to examine symptoms and comorbidities associated with ED. Prevalence odds ratios (POR) and 95% confidence intervals (CI) are presented.

<u>Results</u>
Controls were more likely to be sexually active during the past 12 months and less likely to have urinary symptoms that caused a decrease or stop in sexual activity compared to men with OAB symptoms **(Table 1)**. These results were more pronounced in men with OAB and UI. Among those who were sexually active, 34.7% of OAB cases and 20.0% of controls reported ED. OAB cases were more than twice as likely to report experiencing ED compared with controls, after controlling for diabetes, hypertension, and age group **(Table 2)**. Respondents reporting diabetes (POR=2.4), or hypertension (POR=1.8), and those aged ≥65 years (POR=3.1) were significantly more likely to report ED when compared with those without these conditions **(Table 2)**.

<u>Interpretation of results</u>
This is the first multinational, population-based study to measure the association of OAB symptoms with ED. Men aged ≥50 years with OAB symptoms were significantly more likely than those without OAB symptoms to report ED. This increase is of the same general magnitude seen for respondents with hypertension or diabetes.

<u>Concluding message</u>
OAB symptoms in men older than 50 years were associated with a 2-fold increase in the likelihood of reporting ED compared to controls.

Table1. Proportion of Men Aged ≥50 Years Who Are Sexually Active and Who Reported That Urinary Symptoms Caused a Decrease in Sexual Activity

	Sexually Active in the Past 12 Months, %	Urinary Symptoms Caused a Decrease in Sexual Activity, %
Controls (n=744)	63.3	3.6
OAB without UI (n= 211)	57.8	11.4*
OAB with UI (n=119)	45.4*	17.6*

*P≤0.05 for comparisons of OAB with UI vs controls or OAB without UI vs controls.

Table 2. Logistic Regression Model to Predict Conditions Associated With ED in Men Aged ≥50 Years

	POR	95% CI
OAB cases vs controls	2.1	1.4–3.2
Diabetes vs no diabetes	2.5	1.4–4.6
Hypertension vs no hypertension	1.7	1.2–2.6
Age ≥65 y vs age 50–64 y	3.1	2.1–4.5

Other comorbid conditions and symptoms that were entered into the model were UI, depression, bladder or prostate cancer, and neurological conditions. For these factors, the confidence interval encompassed 1.0 and did not add any precision to the model.