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Title: CHILDBIRTH, PARITY, AND LOWER URINARY TRACT SYMPTOMS: RESULTS FROM THE NOBLE PROGRAM

Aim of the Study:

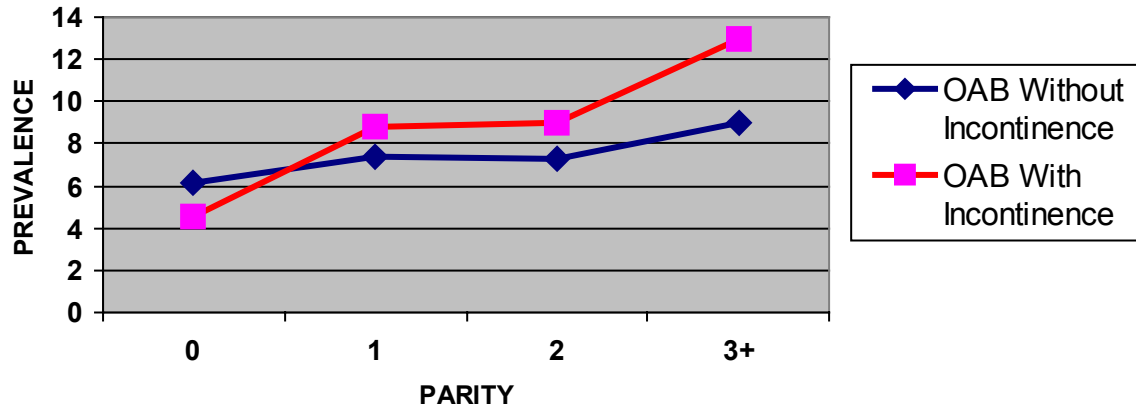
To investigate the association between childbirth, parity, and the prevalence of overactive bladder (OAB) with incontinence (OAB Wet) and without incontinence (OAB Dry).

Methods:

A validated US national telephone survey of 5204 adults, including 2732 women, was completed between November 2000 and January 2001. The computer assisted telephone interview was determined to be clinically reliable and valid when compared to a clinician diagnosis, with the sensitivity and specificity of the interview for diagnosing OAB of 61% and 91%, respectively. Individuals were selected using a quota sampling method to represent the US population with regard to gender, age, and region. During the interview, detailed data were collected on lower urinary tract symptoms, use of coping behaviors for bladder control, and urinary leakage and associated urge or stress symptoms. Individuals were defined as OAB Dry if they had ≥ 4 episodes of urgency in the preceding four weeks, and either reported an average of more than eight voids/day or use of one or more coping behaviors. Individuals were defined as OAB Wet if they met criteria for OAB Dry and also reported three or more episodes of urinary incontinence in the past four weeks that could not be explained by stress symptoms. Logistic regression was used to determine the association between parity (0,1-2, 3+) and the prevalence of OAB with and without incontinence.

Results:

Increasing parity was strongly associated with prevalence of OAB with and without incontinence (Figure). Compared to nulliparous women, the odds ratio for OAB was 1.5 among women with 1-2 births and 2.1 among women with three or more births. Symptoms of OAB without incontinence were less prevalent in nulliparous women compared to men, but OAB symptoms with incontinence were more prevalent in nulliparous women compared to these same men. (See Table)



Prevalence of OAB by gender, parity (females only) and age

Gender	OAB	<45	45-64	65+
Men	OAB Dry	8.5%	18.6%	22.1%
	OAB Wet	0.9%	2.9%	8.5%
Nulliparous Women	OAB Dry	5.1%	7.1%	11.4%
	OAB Wet	1.5%	8.2%	18.6%
Women With 1 To 2 Births	OAB Dry	4.4%	10.0%	10.7%
	OAB Wet	4.3%	14.1%	15.0%
Women With 3+ Births	OAB Dry	4.0%	10.6%	12.1%
	OAB Wet	6.5%	12.1%	20.2%

Conclusions:

Most studies of childbirth and incontinence have focused on stress incontinence. Data from the NOBLE Program demonstrate that the prevalence of OAB increases in relation to parity. The fact that the prevalence of OAB with or without incontinence differs between nulliparous women and men suggests that there are gender-based risk factors in addition to childbirth.

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