

## PREVALENCE OF URINARY INCONTINENCE IN MEN AND WOMEN AGED 65 AND OVER IN THE CITY OF SÃO PAULO, BRAZIL

### Hypothesis / aims of study:

Urinary incontinence is a common health problem among older adults and has a significant impact on the physical, psychological and socio-economic aspects of a person well being. There are only a few epidemiologic studies of prevalence regarding urinary incontinence in Brazil. The aim of this study was to determine the prevalence and types of urinary incontinence and associated factors in men and women aged 65 and over, residents in the city of São Paulo, Brazil.

### Study design, materials and methods

The sample of 388 participants, (246 women and 142 men), was selected by trained medical students from an university hospital to participate in an epidemiologic study, including osteoporosis, vertebral fracture, fibromyalgia and urinary problems. They were personally interviewed and answered a questionnaire including: age, body mass index, habits, gynaecologic/obstetric and medical history, presence of urinary symptoms and characteristics and visual analogical scale (VAS) for the impact of the incontinence (0-10cm), where 10 represents the worst result.

### Results

Average age was 73,3 years old. The prevalence of urinary incontinence in the population was 38,4% (149/388). The prevalence by gender was 50% (123/246) in women and 18,30% (26/142) in men, which demonstrated that women had more incontinence than men ( $p= 0,001$ ). In women the average parity was 5,35 deliveries and there was no association between number of pregnancies and deliveries and urinary incontinence. The average score of visual analogical scale (VAS) for the impact of incontinence was 3,31cm. Patients with diabetes and high blood pressure had more urinary incontinence than patients without these diseases ( $p= 0,022$  and  $0,008$ ). There wasn't association between urinary incontinence and osteoporosis, fibromyalgia, heart disease and stroke. The incontinent population was divided in four different types of incontinence and compared according to gender:

Type	Incontinence (n) / %	Men (n) / %	Women (n) / %
Mixed urinary incontinence	54 / 36,24 %	4 / 7,41 %	50 / 92,59 %
Urge urinary incontinence	40 / 26,8 %	14 / 35 %	26 / 65 %
Stress urinary incontinence	36 / 24,16 %	3 / 8,33 %	33 / 91,67 %
Others	19 / 12,75 %	5 / 26,32 %	14 / 73,68 %
Total	149 / 100 %	26 / 17,44 %	123 / 82,55 %

The relationship between types of urinary incontinence and the factors assessed by the questionnaire was statistically calculated. The findings were:

- Women have more stress and mixed urinary incontinence than men ( $p= 0,001$ )
- Men have more urge urinary incontinence than women ( $p= 0,001$ )
- Black people have more urge urinary incontinence, white people have more stress and mixed urinary incontinence and asians have more stress urinary incontinence ( $p= 0,009$ ).

No association between the types of incontinence and medical diseases, number of deliveries, habits, body mass index and urinary symptoms was observed.

Other urinary symptoms were found in this population:

Symptom	Frequency (n) / % men	Frequency (n) / % women	Frequency (n) / % total
Nocturia	50 / 12,88 %	88 / 22,68 %	138 / 35,56 %
Urgency	34 / 8,76 %	92 / 23,71 %	126 / 32,47 %
Slow stream	47 / 12,11 %	50 / 12,88 %	97 / 24,99 %
Feeling of incomplete emptying	37 / 9,53 %	60 / 15,46 %	97 / 24,99 %
Increased daytime frequency	15 / 3,86 %	42 / 10,82 %	57 / 14,69 %
Pelvic pain	13 / 3,35 %	23 / 5,92 %	36 / 9,27 %

### Interpretation of results

Urinary incontinence prevalence was 38.4 % ( $n = 149$ ) and urinary symptoms like nocturia and urgency are very common, as well. Gender, diabetes and high blood pressure are associated with urinary incontinence and gender and race are associated with the type of incontinence. Although this population lives in the most important city of Brazil, they have less years of study. Interestingly, they don't care about their urinary problems, as shown in the mean score of the visual analogical scale of incontinence (3,31cm). They probably don't have information and knowledge about treatments of these problems, or they are not asked about these conditions in their medical routine and think that in their age it can be a "normal" condition (1,2).

### Concluding message

This is the first prevalence study done in the city of São Paulo, Brazil. Lower urinary tract symptoms and urinary incontinence (and their subtypes) had a higher prevalence in this old non-hospitalized population. The low average score of the visual analogical

scale shows that urinary problems are not so inconvenient for this population. Perhaps they believe it is natural to have urinary leakage as they get older. This study recommends that health professionals from clinics, health centers and hospitals should ask the elderly patients if they have involuntary loss of urine and they should inform them about the possibility of treating these problems and symptoms.

#### References

- 1) J Urol (2007) 177 (2); 680-684
- 2) Acta Cirurg Bras (2003) 18 (5); 47-51

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<b><i>Is this a clinical trial?</i></b>	<b>No</b>
<b><i>What were the subjects in the study?</i></b>	<b>HUMAN</b>
<b><i>Was this study approved by an ethics committee?</i></b>	<b>Yes</b>
<b><i>Specify Name of Ethics Committee</i></b>	<b>Ethics Committee for the Analysis of Research Projects of the Clinical Management of HCFMUSP</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>Yes</b>