Chan C<sup>1</sup>, Wong W<sup>2</sup>

1. Princes of Wales Hospital, Shatin, Hong Kong, 2. Hong Kong Urological Association

# EPIDEMIOLOGY AND PUBLIC AWARENESS OF THE OVERACTIVE BLADDER IN HONG KONG

#### Hypothesis / aims of study

Overactive bladder ( OABtotal ) with (OABwet) or without (OABdry) urge incontinence is often quoted as a common, disabling but under-reported condition. However, its prevalence and impact on the general public in Hong Kong are largely unknown. We aim to study the prevalence of OAB, its degree of bothersomeness, coping behaviour and general awareness of this problem in the community-dwelling adults aged 40 – 79 y.o. in Hong Kong.

### Study design, materials and methods

A population-based cross-sectional telephone survey of OAB was conducted from August to September 2006. Random samples of the database of the household telephone of the general population of Hong Kong were selected. Upon successful contact, one eligible member ( men or women within 40-79 years of age whose birthday was nearest to the day of the telephone contact ) of each household was invited for the survey. The survey was divided into 3 parts. Part I was used to screen for the OAB symptoms, within the 4 weeks preceding the survey, based on ICS 2002 definitions. Symptoms attributable to OAB were identified by responses to questions on frequency ( > 8 voids per day ), urgency, urge incontinence , nocturia and the duration of the symptoms. Subjects who have stress incontinence, diabetes mellitus ( DM ), concurrent cystitis and bladder stone disease were excluded. Part II looked into the bothersomeness of OAB on the daily activities of the subjects and the coping behaviours of the subjects ( questions were covering the inconvenience caused by OAB, negative impact on job and daily life, sleep deprivation, limitation of outdoor activities, frequent need to search for / locate washrooms, psychological disturbance and distress ). Part III was concerned with their medical seeking behaviour and general awareness of OAB.

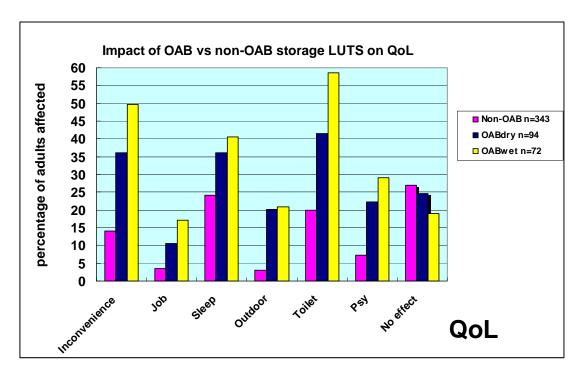
2783 households were contacted. 1677 (60.3%) households consented to participate in the survey. 1307 of the 1677 (77.3%) households had eligible adults aged 40-79 years.

## Results

The average age of the 1307 eligible adults was 54.3 y.o. (SD: 10.4) ( 48.7% were men of average age: 54.5 +/- 10.4; 51.3% were women of average age: 54.0 +/- 10.5). 650 ( 49.8%) eligible adults had at least one storage symptom ( frequency, urgency, urge incontinence, nocturia) of the lower urinary tract symptoms ( LUTS). 170 ( 13%) had frequency alone, 81 ( 6.2%) had nocturia alone, 92 ( 7%) had frequency and nocturia but without symptoms of urgency / urge incontinence. 166 adults had the symptom of urgency with or without urge incontinence, thus the overall prevalence of OAB of the adults aged 40-79 was around 12.7% ( 95% CI: 10.9% - 14.5%) in Hong Kong. 94 ( 56%) ( 95% CI: 48.4% - 63.6%) OAB subjects were dry. Mono-symptomatic urgency was uncommon among OAB adults ( N = 27) ( 16%) ( 95% CI: 10.4% - 21.4%). Frequency ( 58%) ( 95% CI: 50.5% - 65.5%) and nocturia ( 46%) ( 95% CI: 38.4% - 53.6%) were commonly associated with OAB. 77% OAB subjects had the problem for more than one year and 25% had the problem for more than 5 years. The prevalence of OABtotal and the ratio of OABwet to OABtotal stratified by age group and gender were shown in the table.

attained by ago group and genue, note of our in the table.								
Age Group	40 - 49		50 - 59		60 - 69		70 - 79	
Gender	Men	Women	Men	Women	Men	Women	Men	Women
	n = 262	n = 297	n =	n = 193	n =	n = 94	n = 80	n = 86
			192		103			
Prevalence of OABtotal	9.5%	10.1%	6.8%	16.6%	11.7%	18.1%	25.0%	19.8%
OABwet / OABtotal	16.0%	43.3%	8.00%	62.5%	33.0%	64.7%	45.0%	70.6%

When compared to non-OAB storage LUTS (frequency alone, nocturia alone, frequency + nocturia ), it was depicted in the diagram below that OAB affected individuals more significantly and extensively in the context of quality of life (QoL) (inconvenience to daily life, negative impact on job, sleep deprivation, limitation of outdoor activities, frequent need to search for / locate washrooms and psychological disturbance caused by OAB, p<0.05 by  $X^2$ -test except in the group of 'NO effect'). Only 20% OABwet and 25% OABdry subjects were not bothered by the problem.



Despite its bothersomeness, only 24.7% OAB subjects had consulted medical practitioners for OAB and only 7.2% were being treated with drug therapy for the OAB at the time of the survey. Of those who had not consulted medical practitioners, 39.5% thought that OAB was a natural aging process and 36.5% said they were NOT bothered by it. 80.8% of OAB subjects had never heard of the disorder OAB, 9.6% had heard of it but did not know what it was and only 9.6% OAB individuals recognized OAB as a kind of disorder to health.

#### Interpretation of results

OAB is a common problem in Hong Kong as it affects 12.7% ( 95% CI : 10.9% – 14.5% ) of the adults aged 40-79 years. 44% OAB individuals suffer urge incontinence. Its prevalence tends to increase with age in both genders. Women are more likely to have OABwet in each age group and 60-70% post-menopausal community-dwelling women with OAB present with urge incontinence. OAB poses significant negative impact on the individuals' quality of life and most OAB adults are bothered by it. OABwet and OABdry adults are more extensively affected in all aspects of daily activities studied when compared to those having non-OAB storage LUTS. It suggests that urgency ( +/- urge incontinence ) is the main symptom of bothering. It is under-reported to the clinicians and exceptionally under-treated. Public awareness of this problem remains low in Hong Kong.

## Concluding message

OAB is as common in Hong Kong as in other parts of the world (1). However, efforts must be made to educate the general public about its existence as a kind of disorder and that effective treatment is available.

### References

(1) Eur Urol Dec;50(6):1306-14; discussion 1314-5.

FUNDING: Fujisawa Pharmaceuticals (China) Co., Ltd.

HUMAN SUBJECTS: This study was approved by the Hong Kong University Public Opinion Programme and followed the Declaration of Helsinki Informed consent was obtained from the patients.