

## SPONTANEOUS REMISSION OF OVERACTIVE BLADDER AND INCONTINENCE IN OLDER MEN

### Hypothesis / aims of study

High remission rates of overactive bladder (OAB) and incontinence in men have been reported (1,2,3), including in placebo arms of randomized controlled trials of urological medications. The aim of our study was to determine if spontaneous remissions of OAB and incontinence without any intervention occur in a representative sample of community-dwelling older men. And if so, to determine the rates of sustained remissions of these conditions over five years.

### Study design, materials and methods

Our study involves a representative sample of 1705 community-dwelling men aged 70 and older in a defined geographic region in metropolitan Australia. Questionnaire survey and clinical examination were conducted at baseline and 2-year and 5-year followup visits.

Men who had prostate cancer or surgery for benign prostatic enlargement (BPE) by 5-year followup, men who were taking urological medications at any followup point, and men with neurological diseases were excluded from the analysis.

For the purpose of this study, urgency was defined as three points or greater (at least 1/2 the time) in question four (urgency) in the International Prostate Symptom Score (IPSS). Incontinence was assessed using the International Consultation on Incontinence Questionnaire (ICIQ) and was defined as more than weekly leakage of urine. OAB was defined according to the 2002 consensus; either urgency or incontinence by above definitions.

The changes in OAB and incontinence status over five years and the characteristics of men who experienced sustained remission and those of men who didn't were described.

### Results

Of the 1705 men at baseline, 382 died, 369 declined followup, and 954 were followed up for five years. Excluding men without complete data on OAB or incontinence, and men with prostate cancer at any time point and neurological diseases and history of urological treatment at baseline left 529 men with data on OAB and 541 on incontinence.

Of these men, 109 had OAB and 57 had incontinence at baseline. Thirty three (30%) of men with OAB underwent treatment during 5-year followup, of whom 15 (14%) had BPE surgery.

Tables 1 and 2 show the change in OAB and incontinence status in men who did not undergo intervention over five years. Of the 76 men with OAB at baseline, 25 (33%) no longer had OAB at 2-year and 5-year followup (sustained remission). Of the 37 men with incontinence at baseline, 18 (48%) no longer reported incontinence at 2-year and 5-year followup (sustained remission).

Of the men who had OAB at 2-year followup (n=72), remission rates at 5-year followup were 54% (n=21) in men without OAB at baseline and 30% (n=10) in men with OAB at baseline. Of the men who had incontinence at 2-year followup (n=41), remission rates were 59% (n=17) in men who were continent at baseline and 50% (n=6) in men who were incontinent at baseline.

Table 3 compared characteristics of men who had sustained remission of OAB and incontinence with those who didn't. A smaller proportion of men who had sustained remission of both OAB and incontinence had IPSS scores of 20 and greater and daily incontinence at baseline than men with persistent symptoms.

Table 1. Change in OAB status in men without prostate cancer, urological surgery and medications, and neurological diseases

Baseline	2-year followup	5-year followup
No OAB 371	No OAB 332 (89%)	No OAB 299 (90%)
	OAB 39 (11%)	OAB 33 (10%)
OAB 76	No OAB 43 (57%)	No OAB 21 (54%)
		OAB 18 (46%)
	OAB 33 (43%)	No OAB 25 (58%) (Sustained remission)
		OAB 18 (42%)
		No OAB 10 (30%)
		OAB 23 (70%)

Table 2. Change in continence status in men without prostate cancer, urological surgery and medications, and neurological diseases

Baseline	2-year followup	5-year followup
Continent 422	Continent 393 (93%)	Continent 359 (91%)
	Incontinent 29 (7%)	Incontinent 34 (9%)
Incontinent 37	Continent 25 (68%)	Continent 17 (59%)
	Incontinent 12 (32%)	Incontinent 12 (41%)
		Continent 18 (72%) (Sustained remission)
		Incontinent 7 (28%)
	Incontinent 12 (32%)	Continent 6 (50%)
		Incontinent 6 (50%)

Table 3. Characteristics of men who had sustained remission of OAB and incontinence and those of men who didn't

	OAB at baseline		Incontinence at baseline	
	Sustained remission n=25	Others n=51	Sustained remission n=18	Others n=19
Age =>80	5 (20%)	13 (25%)	5 (28%)	7 (37%)
Walking aid use	0 (0%)	1 (2%)	0 (0%)	0 (0%)
Dementia	0 (0%)	2 (4%)	0 (0%)	0 (0%)
Diuretics use	3 (12%)	11 (22%)	3 (17%)	3 (16%)
IPSS =>20	2 (9%)	9 (18%)	1 (6%)	2 (11%)
Peak flow <15mL/s	12 (67%)	21 (55%)	10 (77%)	10 (63%)
Residual >50mL	13 (55%)	13 (31%)	9 (50%)	4 (29%)
Daily incontinence	3 (12%)	11 (22%)	5 (28%)	9 (47%)

#### Interpretation of results

A considerable proportion of men with both OAB and incontinence experienced natural and sustained remissions. Remission of OAB between 2- and 5-year followup seemed to depend on baseline OAB status, but not so for incontinence. For both OAB and incontinence, remarkable differences were seen in high IPSS scores and daily incontinence between men who had sustained remission and those who didn't.

#### Concluding message

One in three older men with OAB may have sustained remission without medical or surgical treatment. Men with relatively acute OAB, lower IPSS, and infrequent or no incontinence may be candidates for 'watchful waiting'.

#### References

1. Malmsten UGH, Molander U, Pecker R, Irwin DE, Milsom I. Urinary incontinence, overactive bladder, and other lower urinary tract symptoms: a longitudinal population-based survey in men aged 45-103 years. *European urology*. 2010;58(1):149.
2. Goode PS, Burgio KL, Redden DT, Markland A, Richter HE, Sawyer P, et al. Population based study of incidence and predictors of urinary incontinence in black and white older adults. *Journal of Urology*. 2008;179(4):1449-53; discussion 53-4.
3. Herzog AR, Diokno AC, Brown MB, Normolle DP, Brock BM. Two-year incidence, remission, and change patterns of urinary incontinence in noninstitutionalized older adults. *Journal of Gerontology*. 1990;45(2):M67-74.

#### Disclosures

**Funding:** This work was supported by the Australian National Health and Medical Research Council (NHMRC Project Grant number 301916); the Ageing, Alzheimer's Research Foundation; Sydney Medical School Foundation; and Geoff and Elaine Penny Aging Research Unit. **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Concord Hospital Human Research Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes