

## TREATMENT OUTCOME IN OAB PATIENTS RECEIVING ANTIMUSCARINIC THERAPY FOR MORE THAN ONE YEAR

### Hypothesis / aims of study

Treatment outcome in patients with overactive bladder syndrome (OAB) receiving long-term antimuscarinic therapy is rarely reported, and this information is important for clinical consultation. Thus, the aim of this study is to report the treatment outcome of OAB patients who received antimuscarinic therapy for more than 12 months.

### Study design, materials and methods

We reviewed the medical records of patients who had received antimuscarinic therapy for more than one year. In our institute, after antimuscarinic therapy, our patients were requested to be followed-up at 1 month, 3 months, and every 3 months thereafter. At every visit, patients were also asked to complete International Prostate Symptom Score (IPSS), Overactive Bladder Symptom Score (OABSS), and Indevus Urgency Severity Score (USS) questionnaires, and receive uroflowmetry study.

### Results

A total of 144 patients, who had received more than 12 months' antimuscarinic therapy, were reviewed in this study (Table 1). Combined antimuscarinic therapy was observed in 12 patients (solifenacin + oxybutynin, n=9; tolterodine + oxybutynin, n=3). Sustained therapeutic effects were observed by the persistent decrease of IPSS-storage (IPSS-S) score, IPSS-total (IPSS-T) score and OABSS score, compared to the baseline data (Table 2, Fig. 1 and 2). Besides, the maximum flow rate did not change with time. A temporary increase of postvoidal residual was observed at 1 month, but not thereafter (Table 2). Tolerable side effects were observed in 81 patients (56.2%), including dry mouth (n=58, 40.3%), constipation (n=48, 33.3%) and blurred vision (n=4, 2.8%). There was no significant difference in side effects between different antimuscarinic drugs.

### Interpretation of results

In this retrospective cohort, the treatment effect did not attenuate with time. Besides, the adverse effect of antimuscarinic therapy is still common but tolerable.

### Concluding message

Sustained treatment effect can be observed in patients who received more than 12 months' antimuscarinic therapy. However, side effect in patients receiving long term therapy is also common but tolerable.

Table 1. Baseline characteristics of patients with overactive bladder syndrome receiving antimuscarinic therapy  $\geq 12$  months (n=144)

Variables	Values
Age (years)	75.9 $\pm$ 11.0
Gender	
Male	110 (76)
Female	34 (24)
OAB wet	87 (60)
OAB dry	53 (37)
Bladder oversensitivity	4 (3)
Treatment	
Solifenacin	109 (74)
Tolterodine	27 (18)
Oxybutynin	20 (14)
Concomitant therapy	
Alpha blocker	40 (28)
Dutasteride	13 (9)
Benign prostate hyperplasia	64 (44)
Diabetes mellitus	43 (30)
Cerebral vascular accident	12 (8)

†OAB: overactive bladder syndrome.

Table 2. Comparison of clinical data before and after antimuscarinic therapy

Variables	Baseline (a)	1 month (b)	3 month (c)	6 month (d)	§Last visit (e)	†P	‡P
Qmax	12.1±6.5	14.2±10.1	13.4±8.7	15.4±9.4	13.4±8.4	0.73	
VV	157±105	170±100	195±114	197±113	185±109	0.21	
PVR	53±61	104±106	69±59	84±48	67±92	0.004	a vs. b, P = 0.02
IPSS-V	4.8±4.7	4.8±4.4	6.5±5.4	4.8±5.4	4.6±4.4	0.51	
IPSS-S	7.0±3.5	4.4±2.3	5.1±3.2	5.5±3.5	4.2±2.9	0.0001	a vs. b, P = 0.002 a vs. e, P <0.001
IPSS-T	11.8±6.5	9.3±5.8	11.6±8.2	10.2±6.6	8.8±5.9	0.004	a vs. b, P =0.01 a vs. e, P <0.001
OABSS	6.7±3.1	5.9±4.0	5.6±3.2	6.6±3.5	4.1±3.0	0.0001	a vs. b, P =0.02 a vs. c, P =0.02 a vs. e, P <0.001
USS	3.1±1.4	2.4±1.8	2.9±1.4	2.8±1.4	2.1±1.5	0.29	

†The Skillings-Mack test

‡ Post-hoc comparison by Wilcoxon signed-rank test

§Values are given as mean ± standard deviation. Last visit is the last visit at ≥12 months after treatment. IPSS: International Prostate Symptom Score; IPSS-T: total International Prostate Symptom Score; IPSS-S: IPSS-storage subscore; IPSS-V: IPSS-voiding subscore; OABSS: Overactive Bladder Symptom Score; PVR: postvoidal residual; Qmax: maximum flow rate; USS: Indevus Urgency Severity Score; VV: voided volume.

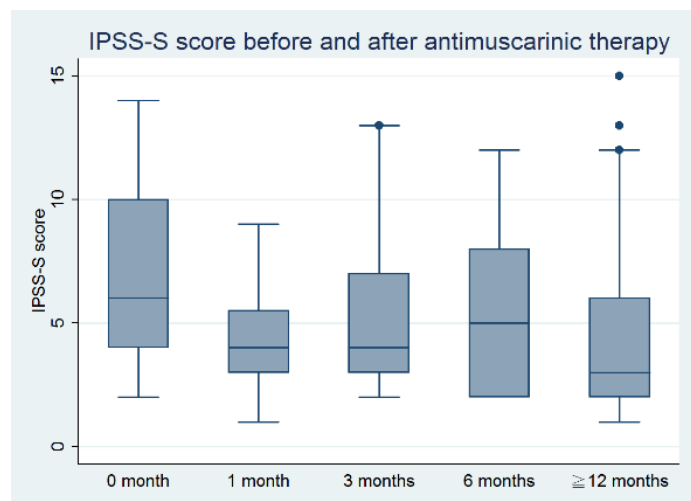


Fig. 1. IPSS-S score before and after antimuscarinic therapy.

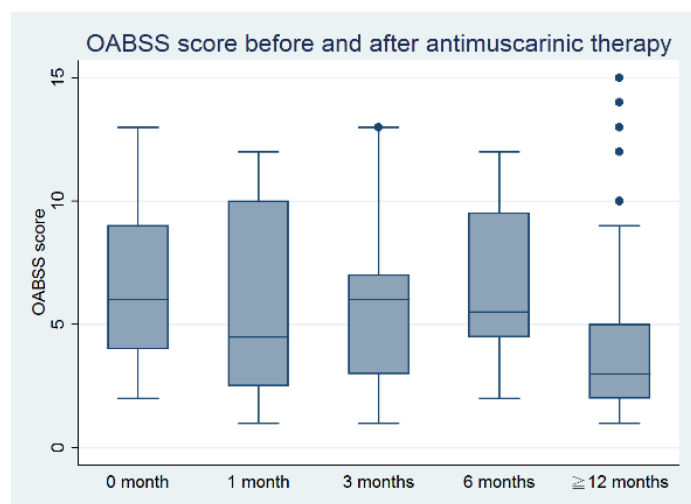


Fig. 2. OABSS score before and after antimuscarinic therapy

**Disclosures**

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Research Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes