

## ADHERENCE TO ANTICHOLINERGIC AGENTS IN WOMEN WITH LOWER URINARY TRACT SYMPTOMS

### Hypothesis / aims of study

Lower urinary tract symptoms (LUTS) are common and important causes of morbidity and impaired quality of life. Recently, many drugs for LUTS have become available in clinical practice, for example,  $\alpha$  blockers,  $\beta_3$ -adrenoceptor agonists, and anticholinergic agents.

Anticholinergic agents are the first-line drugs for treating LUTS in women. However, these drugs have several adverse events, including dry mouth, constipation, and blurred vision. Thus, we consider adherence to treatment regimens with these drugs to be low. We evaluated continued adherence to anticholinergic agents as first-line therapy.

### Study design, materials and methods

We accumulated female patients receiving medication for LUTS from January 2005 to September 2012 at our institution. The study inclusion criteria included an anticholinergic agent prescription for LUTS. The exclusion criteria for participation were being under age 15 years, urogenital cancer, acute urinary tract infection, pelvic organ prolapse, taking mirabegron ( $\beta_3$ -adrenoceptor agonist), botulinum toxin A treatment, and having decided on one's own to discontinue therapy. The continuance of anticholinergic agents was surveyed retrospectively based on prescriptions. We read medical records and evaluated the reasons for changing the first-line therapy.

### Results

Of the 279 cases accumulated, 222 women were eligible for this study (mean age 65.7 years). Overactive bladder (OAB) in 49.5%, neurogenic bladder in 20.3%, and urinary incontinence in 13.5% were given as the causes of LUTS. Women able to continue anticholinergic agents for 2, 4 and 8 weeks accounted for 92.8%, 69.4% and 51.8% of the baseline, respectively. The rate of continuing for more than 1 year was only 19.8% (Figure). For the entire subject group, lack of improvement accounted for approximately half of the cases in which the therapy was changed (51.3%). Another 26.7% had changed therapy due to adverse events such as dry mouth and constipation. When limited to those with idiopathic OAB, the reasons for changing therapy were lack of symptom improvement in 47.1% and adverse events in 28.6%. Among the women who changed their therapy for LUTS based on anticholinergic effects, approximately half changed for less than one month. A comparison among agents revealed that oxybutynin was used for longer periods than any of the anticholinergic agents.

### Interpretation of results

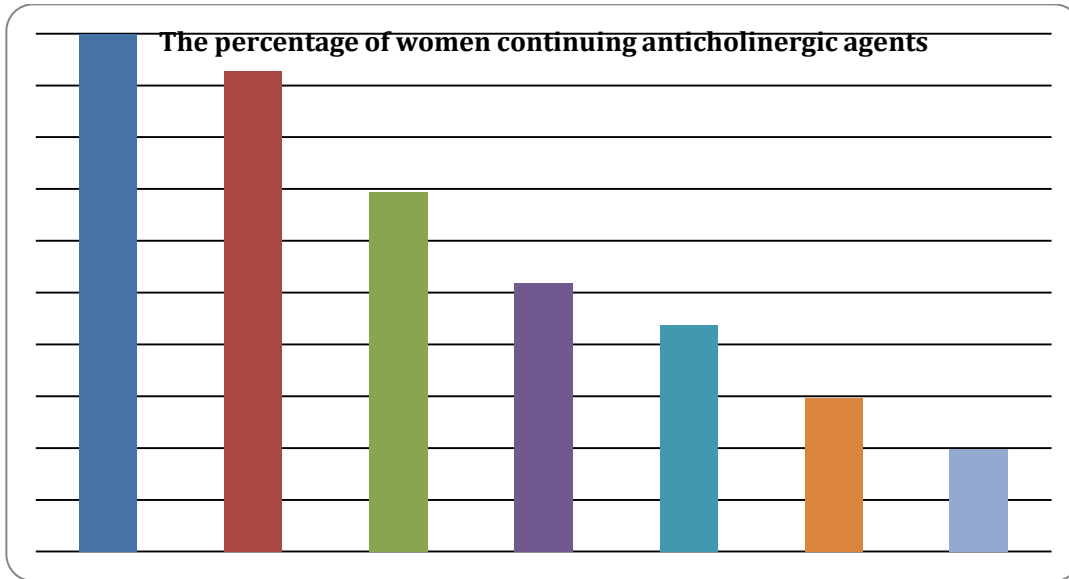
For many years, anticholinergic agents have been the gold standard for treatment of LUTS. These agents act mainly during the storage phase, decreasing urgency and increasing bladder capacity.

LUTS is one of the common chronic diseases affecting women. Adaptation to oral medications is an important issue. Some past studies showed that the adherence to these agents was very low as compared with oral anti-diabetic agents and antihypertensives (1) (2). Our study also revealed that long-term adherence to anticholinergic agents was low. The reason for stopping these first-line agents in the early stage was mainly unsatisfactory therapeutic effects of the medication rather than adverse events, though adverse events tended to have a greater impact in OAB patients.

When we conducted a comparison among individual agents, oxybutynin was found to be used longer than the other anticholinergic agents. We speculate that this might be explained by the frequent use of oxybutynin by younger women with the neurogenic bladder.

### Concluding message

Most anticholinergic agents have adherence rate similar to those in our study. Women with LUTS can maintain good adherence to an anticholinergic agent regimen, when their symptoms show improvement and adverse events do not appear in the early stage of medication use.



References

1. Jason Yeaw et al: Comparing adherence and persistence across 6 chronic medication classes. J Manag Care Pharm. 2009;15:728-740
2. Ramandeep K. Basra et al: A review of adherence to drug therapy in patients with overactive bladder. BJU Int. 2008;102:774-779

Disclosures

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