

LONG-TERM USE OF ANTIMUSCARINIC MEDICATION IN THE REAL WORLD: RESULTS OF A COMMUNITY-BASED PROSPECTIVE STUDY OF PATIENTS WITH OVERACTIVE BLADDER

Hypothesis / aims of study

Antimuscarinic drug therapy is commonly prescribed as part of the multimodality treatment of overactive bladder (OAB). Newer long acting preparations allow once daily dosing and in many cases selective dose escalation to maximise efficacy. Some patients may change from one medication to another if their first prescribed drug causes undue side effects or is not effective. Poor adherence to medication is commonly encountered and associated with inadequate treatment. Dose escalation and adherence to treatment do not appear to occur as commonly as clinical trials would suggest should be the case. Data from community studies have reported <20% adherence to antimuscarinic medication at six months of treatment [1]. Currently, there are no guidelines for the optimum duration of antimuscarinic medication use; which may also influence short and long-term adherence to treatment. The effectiveness and frequency of medication switches and long-term use of antimuscarinic medication is unknown in clinical practice. The aim of this study was to investigate the use of antimuscarinic medication in patients with OAB in a real world setting.

Study design, materials and methods

Women with symptoms of idiopathic OAB referred from primary care to 2 tertiary Urogynaecology centres were recruited into a prospective study investigating the management of OAB in clinical practice. Patients were recruited into the study between May 2006 and August 2007. After a baseline and 6 week visit, patients were invited for follow-up at 3 monthly intervals for a minimum of 12 months. All patients were given written and verbal information about the management of OAB and were offered long-acting once daily dosing antimuscarinic medication; solifenacin, tolterodine, darifenacin, oxybutynin tablets or transdermal patches. Demographic data, medical co-morbidities, polypharmacy, use of antimuscarinic medication and periods without treatment were recorded. Patients were also asked to complete a series of validated questionnaires at each study visit; the Patient Perception of Bladder Condition scale (PPBC) [2] and the Kings Health Questionnaire (KHQ/ICIQLUTSqol) [3]. The PPBC is a single item questionnaire which provides a concise assessment of the patients' perception of their urinary symptoms. Respondents are asked to choose one of six statements that best describes their present bladder condition. The KHQ is a 33 item, multidimensional, lower urinary tract dysfunction questionnaire. It consists of 9 domains; general health perception, incontinence impact, role limitations, physical/social limitations, personal relationships, emotions, sleep/energy and severity measures. The KHQ has been used extensively for the assessment of health related quality of life in patients with lower urinary tract dysfunction.

Results

251 women (mean age 55yrs) consented to take part in the study. 133 patients (53%) completed 12 months follow-up of which 68 patients (27%) completed a further 12 month follow-up at the time of reporting this study. 11 patients (4%) did not complete a baseline assessment, and 107 patients (43%) dropped out of the study within 6 months. Commonly cited reasons for non-completion of the study were withdrawal of consent for participation, resolution of symptoms, poor treatment efficacy and tolerability. Data from patients who completed the study were used in this analysis. 96% of patients were prescribed an antimuscarinic during the study. The first line antimuscarinic agents used in the 2 clinics were solifenacin and extended release tolterodine. The subsequent choice of 2nd or 3rd line antimuscarinic agent was at the discretion of the prescribing physician. 30 patients completing the minimum 12 month follow-up did not fill their prescription for antimuscarinic medication. Figure 1 shows the percentage of patients using antimuscarinic medication over a 24 month period. The mean duration of medication use was 17.5 weeks and 27.25 weeks in patients who completed 12 and 24 months follow-up respectively. The mean number of antimuscarinic agents tried by patients was 1.4 (range 0-4). 37 patients (28%) using flexible dosing agents (solifenacin and darifenacin) chose to escalate the dose of their medication.

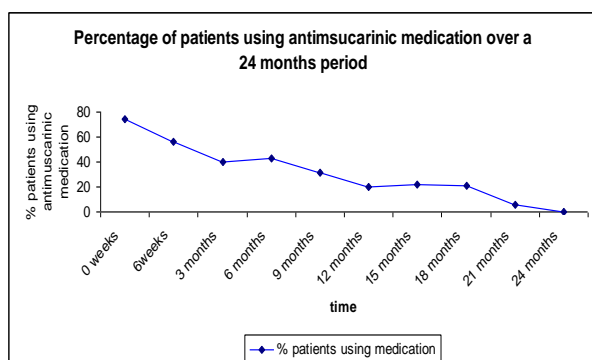


Figure 1

Greater severity of OAB symptoms as reported on the PPBC and KHQ was associated with use of a greater number of antimuscarinic agents, escalation of drug dose and a longer duration of medication use. Age and ethnicity were not associated with multiple medication switches, medication dose escalation or a longer duration of medication use. In the UK, eligibility for free prescription medication is means tested; analysis of medication use showed that eligibility for free medication did not affect the number of antimuscarinic agents used, the frequency of dose escalation or persistence with medication. Patients who tried more than 3 antimuscarinic agents reported a longer duration of medication use (mean duration 29.6wks) than patients who used a single agent (mean duration 19.9wks). Patients who required drug dose escalation used medication for longer periods than

patients who continued using the lowest dose. Patients using >5 prescription medications used antimuscarinic medication for longer than patients using none or few regular medications.

Interpretation of results

Long-term use of antimuscarinic medication for OAB in clinical practice is poor. At 12 months of treatment 20% of patients were using antimuscarinic medication, and all patients had ceased using medication by 24 months. Longer duration of medication use, use of multiple antimuscarinic medications and dose escalations are associated with a greater severity and health-related quality of life impact of OAB symptoms.

Concluding message

Long-term persistence with antimuscarinic medication in patients with OAB in clinical practice is lower than clinical studies would suggest. The percentage of patients requiring dose escalation in clinical practice is also significantly lower than that reported in clinical studies. A greater health-related quality of life impact from OAB is associated with the use of multiple antimuscarinic agents and a longer duration of medication use.

References

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2. Coyne KS, Matza LS, Kopp Z, Abrams P. The validation of the patient perception of bladder condition (PPBC): a single-item global measure for patients with overactive bladder. Eur Urol. 2006 Jun;49(6):1079-86
3. Kelleher CJ, Cardozo LD, Khullar V et al. A new questionnaire to assess the quality of life of urinary incontinent women. BJOG 1997;104(12):1374-9

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<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	St Thomas local research ethics committee
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes