concentration-dependent antimuscarinic adverse events by maintaining lower and less fluctuating plasma concentrations. Once-daily administration offers greater convenience and may improve compliance. Both products seem as effective as oxybutynin, but they have a reduced frequency and severity of adverse effects.

What to prescribe

Oxybutynin should be regarded as first-line drug therapy. It fulfils criteria for cost-effectiveness, safety, efficacy, and for a significant proportion of patients, tolerability. Consideration should always be given to behavioural therapies as an adjunct, to achieve and maintain good therapeutic outcomes at the lowest drug doses.[10] Patients experiencing unmanageable adverse effects from oxybutynin may benefit from changing to second-line treatments such as tolterodine. Subsequent treatment failure may warrant specialist referral.

Only two small longitudinal studies on the duration of treatment have been carried out. Those patients who require anticholinergic therapy may typically need it for at least 3–6 months.

Minimising adverse effects

In the elderly or patients with a low bodyweight, the initial oxybutynin dose should be 2.5 mg twice daily. One can increase a morning dose or add a lunchtime dose according to the severity and timing of the urge symptoms. On the other hand, if the patient has a very dry mouth in the morning, then a lower morning dose with a larger evening dose can be used. The maximum dose is 5 mg three times daily. Tolterodine is expensive and not subsidised by the Pharmaceutical Benefits Scheme so some patients may prefer to take it in the morning and use a cheaper drug at times when dry mouth may be less bothersome.

Conclusion

Anticholinergics are clinically and statistically better than placebo for overactive bladder. Most are equally effective and all have some adverse effects. This has driven the development of drugs with greater selectivity or tolerability. Until these new alternatives undergo rigorous comparative trials, oxybutynin will remain first-line in pharmacotherapy in Australia. Outcomes are improved when anticholinergics are prescribed in conjunction with bladder training.

References

1. Abrams P, Cardozo L, Fall M, Griffiths D, Rosier P, Ulmsten U, et al. The standardisation of terminology of lower urinary tract function: report from the standardisation sub-committee of the International Continence Society. Neurourol Urodyn 2002;21:167-78.
2. Milsom I, Abrams P, Cardozo L, Roberts RG, Thuroff J, Wein AJ. How widespread are the symptoms of an overactive bladder and how are they managed? A population-based prevalence study. BJU Int 2001;87:760-6.
3. Herbison P, Hay-Smith J, Ellis G, Moore K. Effectiveness of anticholinergic drugs compared with placebo in the treatment of overactive bladder: systematic review. Br Med J 2003;326:841-4.
4. Hay-Smith J, Herbison P, Ellis G, Moore K. Anticholinergic drugs versus placebo for overactive bladder syndrome in adults. The Cochrane Database of Systematic Reviews 2002, Issue 3. Art. No.: CD003781. DOI: 10.1002/14651858.CD003781.
5. Moore KH, Hay DM, Imrie AE, Watson A, Goldstein M. Oxybutynin hydrochloride (3 mg) in the treatment of women with idiopathic detrusor instability. Br J Urol 1990;66:479-85.
6. Harvey MA, Baker K, Wells GA. Tolterodine versus oxybutynin in the treatment of urge urinary incontinence: a meta-analysis. Am J Obstet Gynecol 2001;185:56-61.
7. Junemann KP, Al-Shukri S. Efficacy and tolerability of trospium chloride and tolterodine in 234 patients with urge syndrome: a double-blind, placebo-controlled, multicentre clinical trial. Neurourol Urodyn 2000;19:488-90.
8. Chapple CR, Rechberger T, Al-Shukri S, Meffan P, Everaert K, Huang M, et al. Randomized, double-blind placebo- and tolterodine-controlled trial of the once-daily antimuscarinic agent solifenacin in patients with symptomatic overactive bladder. BJU Int 2004;93:303-10.
9. Anderson RU, Mobley D, Blank B, Saltzstein D, Susset J, Brown JS, et al. Once daily controlled versus immediate release oxybutynin chloride for urge urinary incontinence. J Urol 1999;161:1809-12.
10. Burgio KL, Locher JL, Goode PS. Combined behavioral and drug therapy for urge incontinence in older women. J Am Geriatr Soc 2000;48:370-4.

Associate Professor Moore has held consultancies with Pfizer, the manufacturer of tolterodine and darifenacin.

Self-test questions

The following statements are either true or false (answers on page 27)

7. Anticholinergic drug therapy for overactive bladder reduces the frequency of micturition by one void every two days.
8. Anticholinergic drugs with greater selectivity for M_3 muscarinic receptors have significantly greater efficacy than less selective drugs for overactive bladder.

Patient support organisation

The Continence Foundation of Australia

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