Controlling the Overactive Bladder
in the Elderly

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Loss of urine control in the elderly is a common problem. Estimates of its prevalence range between 15% and 30% in both men and women > 65-years-of-age.[1] It is more common in women and in institutionalized individuals of both sexes.[2] It is nearly always associated with idiopathic bladder overactivity in the older age groups.[3] Stress incontinence is less common in elderly women, as they have either already had surgery to correct their problem, or no longer are active enough to suffer significant symptoms from it. Prostatism in men can lead to bladder overactivity. This must be differentiated from idiopathic bladder overactivity.

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Steve's case

Steve, 83-years-old, is a retired, formerly self-employed business man who complains of nocturia 4-5 times in the past 3 months. He also has frequency, urgency and occasionally "dribbles" on the way to the bathroom. He has had a normal urinary stream since his prostatectomy 10 years ago. He has no hesitancy, dysuria or hematuria. He has recently been put on a "healthier" diet by his wife to improve his diabetes control. This includes green tea and a lot of fruit, mostly eaten at night. Despite this new diet, his blood sugars are usually high during the afternoon and evening. He also drinks a coffee every morning, but drinks no alcohol.

Read on for more on Steve.

It results in bladder contractions during the storage phase of bladder function, which cause the sensation of an urgent need to void. Associated symptoms are frequency and nocturia. Incontinence occurs when the sphincter muscle, which is often weakened during the aging process, can no longer hold back the urine that the bladder is trying to expel. Bladder overactivity causing incontinence has a tremendous impact on the quality of life for affected individuals. It may lead to depression or social withdrawal. In many cases, it results in the institutionalization of the elderly.

Factors which aggravate bladder overactivity are listed in Table 1. Treatment of the symptoms of overactive bladder include lifestyle changes (Table 2) and medication (Table 3). Treatment of the overactive bladder in the elderly with medication is complicated by poor tolerance to anticholinergic drugs.[4] Therefore, lifestyle modification is a critical component of the effort to maintain continence in the older individual.[5]

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Steve's management

You recognize that Steve's recent development of incontinence can be attributed to the aggravation of pre-existing bladder overactivity by the over-consumption of fluids, ingestion of caffeine and poorly controlled diabetes. You give Steve the following instructions:

- Limit fluid intake to 1,500 cc (six cups) per day
- Restrict consumption of fluids and eating fruit after supper
- Avoid caffeine containing liquids
- Follow a strict diabetic diet and monitor blood sugars every six hours

Table 1

Factors aggravating bladder overactivity

- Over-drinking
- Use of caffeine containing foods
- Poor mobility/lack of easily accessible bathroom
- Cognitive impairment
- Urinary tract disorders (*e.g.*, urinary tract infection, bladder tumours, bladder stones)
- Prostatism
- Neurologic disease (*e.g.*, Parkinson's, stroke)
- Poorly controlled diabetes or congestive heart failure
- Use of diuretics

Table 2

Lifestyle changes to improve symptoms of the overactive bladder

- Limit intake to 1,500 cc (6 cups) per day
- Avoid caffeine—use only decaf coffee or decaf/herbal tea
- Improve access to toilet
- Pelvic floor exercise if not cognitively impaired
- Timed voiding if cognitively impaired
- Rule out urinary tract disorders by urinalysis and culture
- Consult with a urologist in men not previously treated for prostatism
- Control diabetes
- Avoid diuretic use, but if diuretics are necessary, administer in the morning

You also ask Steve to keep a record of his fluid consumption and urine output over a 48-hour period and arrange for a urinalysis and urine culture to be done. You book an appointment for him to return to see you in one month.

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Table 3

Medications used for bladder overactivity

Drug Name	Dose in the elderly	Side-effects
Oxybutynin	2.5 mg b.i.d.	Dry mouth, confusion
Tolterodine	2 mg b.i.d.	Dry mouth
Darifenacin	7.5 mg o.d.	Dry mouth, constipation
Solifenacin	5 mg o.d.	Dry mouth, constipation
Trospium	20 mg o.d.	Dry mouth, constipation
Oxybutynin patch	Every 3 days	Skin reaction

Frequently Asked Questions

Is there any surgery that might help a patient with an overactive bladder?

Minimally invasive procedures such as injection of Botox® into the bladder wall or insertion of a bladder pacemaker have little role in most cases of idiopathic bladder overactivity.

Take-home message

- Idiopathic bladder overactivity is the main cause of incontinence in the elderly
- Lifestyle modification which includes the avoidance of factors that aggravate the symptoms of bladder overactivity is the mainstay of maintaining continence in the elderly

Steve's follow-up

Steve returns one month later. He reports that his frequency and nocturia have improved, but he still wakes up three times at night. His 48-hour intake/output record reveals a fluid intake of only 1,500 cc per day as requested. However, his output on the same record is > 2,000 cc. On careful questioning, you find out that Steve did not record the two cups of fluid that he takes at night with his medications. His urinalysis shows no glucose confirming better control of his diabetes. His urine specific gravity, however, is 1.010 going along with over-consumption of fluids. You reassure Steve that it is acceptable to take his nightly medication with only a sip of fluid and expect that his nocturia will further improve by his next visit. You do not feel that the use of anticholinergic medication is indicated at this time. Dx

References
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