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A Resource for Providers

Urinary Incontinence—Treatment

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A previous issue of *Elder Care* discussed the diagnosis of urinary incontinence. This issue reviews treatment.

URGE INCONTINENCE

For most patients, urge incontinence is treated with behavioral therapy, medications, or a combination of the two. Electrical stimulation therapy is indicated for selected patients who have failed other treatments.

Behavioral Therapy Two main types of behavioral therapy have benefit for patients with urge incontinence. One is pelvic muscle (Kegel) exercises. The other is bladder training routines. Both are more effective than medication for treatment of urge incontinence and should be considered the first-line therapy.

Although many clinicians think of Kegel exercises as a treatment for stress incontinence, they turn out to be even more effective for urge incontinence. Properly performed, Kegel exercises (Table 1) can reduce the frequency of incontinence episodes by up to 80%. Although biofeedback and vaginal weights have been recommended to enhance effectiveness of Kegel exercises, there is no evidence that those adjunctive modalities result in better outcomes than well-taught Kegel exercises alone.

Bladder training involves having patients hold their urine for progressively longer periods of time when they feel the urge to void. This simple maneuver is also more effective than medication, resulting in either improvement or resolution of incontinence symptoms in the majority of patients.

Medications Several anticholinergic medications (Table 2) can be used to decrease the uncontrolled detrusor contractions that cause urge incontinence. While each medication claims advantages over others, independent evaluations indicate that they all have similar effectiveness. Caution should be used when prescribing these medications to elderly patients, however, as they are more susceptible to anticholinergic side effects including dry mouth, urinary retention, and mental status changes.

Combination Therapy The combination of behavioral therapy and medications can be more effective than either treatment alone. Generally, clinicians should include behavioral therapy in any treatment regimen involving medications.

Electrical Stimulation Implantation of an electrode that stimulates the sacral spinal cord (InterStim Device) results in a reduced frequency of urge incontinence episodes in more than half of patients; nearly a quarter are completely dry. Studies show that the benefit persists over many years. This is an impressive result, given that the treatment is only indicated for patients who have failed other treatments. (See ww.medtronic.com/neuro/onterstim)

STRESS INCONTINENCE

Treatments for stress incontinence include pelvic muscle exercises, use of a variety of devices, and invasive procedures including surgery, periurethral bulking injections, and urethral denaturation. It is difficult to know which treatment is best, because head-to-head comparisons are few. Of note, there are no medications approved by the FDA for treating stress incontinence, and often-used medications, such as estrogens and alpha-adrenergic drugs, have been proven ineffective.

Pelvic Muscle Exercises Kegel exercises (Table 1) are safe and frequently recommended for patients with stress incontinence. They can reduce incontinence episodes in 50-60% of women with stress incontinence, and in up to 80% of men who have stress incontinence following prostate surgery.

Continued on Reverse Side

Tips for Treating Incontinence in the Elderly

- Prescribe behavioral therapy (Kegel exercises and bladder training) as first-line therapy for urge incontinence. It is more effective than medications.
- When medication is used for urge incontinence, combine it with behavioral therapy.
- Be alert for anticholinergic side effects when using medications to treat urge incontinence.
- Consider treating stress incontinence with devices, like ExMI, intraurethral plugs, or intravaginal spheres and pessaries. They carry minimal risk and they work for many patients. They are a good choice for patients not interest in, or not candidates for, surgical treatments.

Urinary Incontinence—Treatment, cont.

Devices The FDA has approved several devices for treating stress incontinence. They are underused because many clinicians are unaware of them.

Extracorporeal Magnetic Innervation (ExMI) is used for women with stress incontinence. The patient sits for 20 minutes, fully clothed, in a chair that delivers a low-power magnetic field to the pelvic muscles. The treatment is repeated twice weekly for 8 weeks. Studies show that months after the treatment, up to 70% of women report fewer incontinence episodes, and about 25% are dry. (See www.neocontrol.com/index.htm)

Intraurethral Plugs are small silicone cylinders that are inserted into the urethra to block urine outflow. They can remain in place for up to 6 hours and are ideal for use by women who have stress incontinence in specific situations, such as during exercise. With proper fitting (there are several sizes), nearly all women experience urinary control. The main adverse effect is bladder infection, which occurs in 2-3% of regular users each month, so the device is not a good choice for women with recurrent urinary infections. (See www.rocm/com)

The Intravaginal Sphere is small polycarbonate ball (6 sizes are available) that is inserted into the vagina, where it can remain in place for up to 24 hours at a time. A string is attached to facilitate removal. Women with stress incontinence can use it as an aid to Kegel exercises. After using the device for 4 months, about 75% of women report significant improvement in stress incontinence. The main drawback is that the device is sometimes expelled during defecation; many women must remove it prior to having a bowel movement. The device can also be used like a pessary to treat uterine prolapse. (See www.colpexin.com).

Pessaries come in many shapes and sizes, and some are specifically designed to treat stress incontinence. An article cited in the reference list gives details about how to fit and use pessaries.

Invasive Treatments Invasive treatments for stress incontinence include surgery, periurethral bulking injections, and radiofrequency denaturation of the urethra.

Surgery Creation of a suburethral sling using tension-free vaginal tape (TVT), which can be performed as outpatient surgery, has become a frequent treatment for female stress incontinence. The TVT procedure is less invasive than colposuspension and has similar or better outcomes. Complications rates are low, and two years after a TVT procedure, 60-80% of women report good results.

Peri-urethral Bulking Injections can be used for women with stress incontinence caused by an intrinsic sphincter deficiency (rather than hypermobility) and for men with stress incontinence following prostate surgery. A variety of substances have been used for the injections, including carbon-coated zirconium beads, hydoroxylapatite particles, bovine collagen, and others. Initial cure rates are high, but incontinence recurs over time in many patients. Still, bulking injections are a viable treatment for some patients.

Transurethral Collagen Denaturation is a new technique, known as the Renessa procedure, for treating stress incontinence in women. It can be performed under local anesthesia in a clinician's office. A probe with a Foley catheter-like balloon is inserted into the urethra. The probe deploys small needles into the bladder neck and upper urethra, and then delivers radiofrequency energy to those tissues. As a result, collagen undergoes a structural change and the urethra and bladder neck tighten. Initial studies show that in comparison to sham treatment, the Renessa procedure is effective. One year after treatment, 75% of women have a persistent reduction in the number of incontinence episodes, and more than half no longer need to use pads. (See www.novasysmedical.com)

Table 1. How to Perform Pelvic Muscle (Kegel) Exercises

- Pelvic muscles should be tightened by contracting them as if trying to prevent passage of flatus.
- There are two types of contractions: long (5-10 sec) contractions and short (2 sec) contractions.
- Each type of contraction should be performed 40-50 times per day.
- Contractions can be performed lying down, sitting in a firm seat, or standing.
- Common errors include breath holding, and tightening thighs or stomach instead of pelvic muscles.

Table 2. Drugs for Treating Urge Incontinence

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Darifenacin (Enablex)
Oxybutynin (Ditropan, Ditropan XL)
Oxybutynin patch (Oxytrol)
Solfenacin (Vesicare)
Tolterodine (Detrol, Detrol LA)
Trospium (Sanctura)

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