Spastic Urethral Sphincter of Unknown Cause in a Woman

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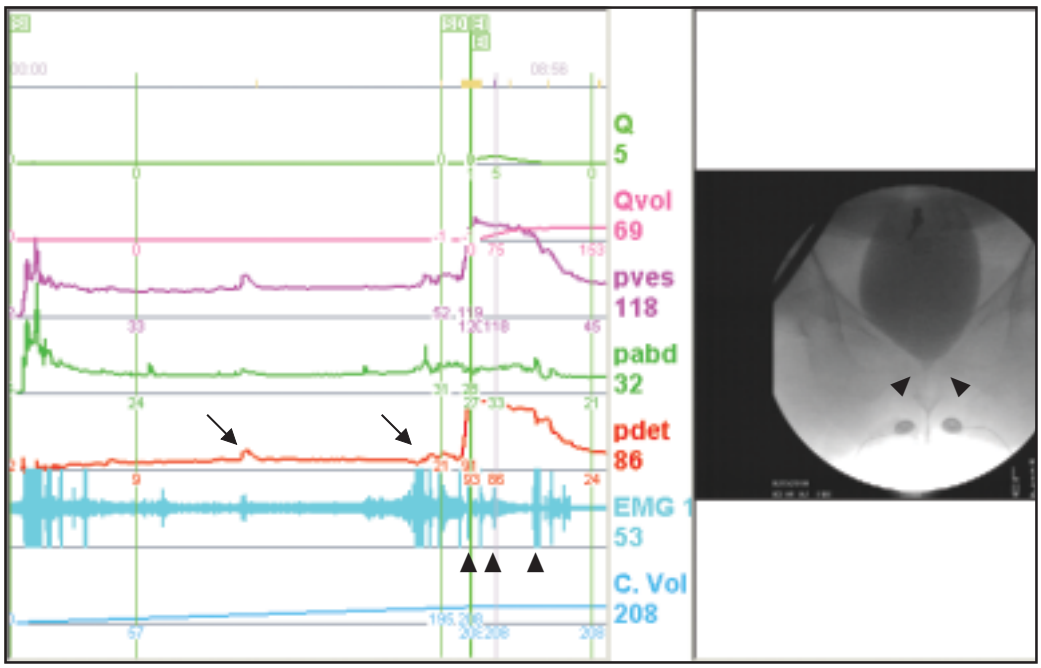

BRIEF HISTORY

A 64 year-old woman presented with severe frequency urgency and dysuria for more than 6 months. She also suffered from nocturnal incontinence during sleep. An antimuscarinic agent had been tried but difficult urination became severe.

CLINICAL INVESTIGATION

She was neurologically intact with no history of pelvic surgery. Cystoscopy revealed a normal urethra and bladder.

VIDEOURODYNAMIC (VUDS) FINDINGS

Urodynamic study showed detrusor overactivity during the filling phase (arrows) but she could inhibit it. At a volume of 195 mL, uninhibited detrusor contractions occurred. The voiding pressure was 72 cm water and the maximum flow rate (Qmax) was only 5 mL/s. During the voiding phase, the bladder neck was open but the middle urethra had a spinning top appearance (arrow heads). Increased urethral sphincter electromyography (EMG) activity was noted (arrow heads) at bladder capacity and persisted during the initial voiding phase.

CLINICAL DIAGNOSIS AND MANAGEMENT

The VUDS findings indicate a spastic urethral sphincter, resulting in detrusor overactivity and bladder outlet obstruction. Cystoscopy should be performed to exclude urethral stricture. An alpha-adrenergic blocker and skeletal muscle relaxant such as baclofen may be tried first. Biofeedback pelvic floor muscle training might also be helpful and can be used as the first line concomitant treatment. If all treatments fail, urethral sphincter botulinum toxin injection is indicated.