Parkinson's Disease and Urge Urinary Incontinence

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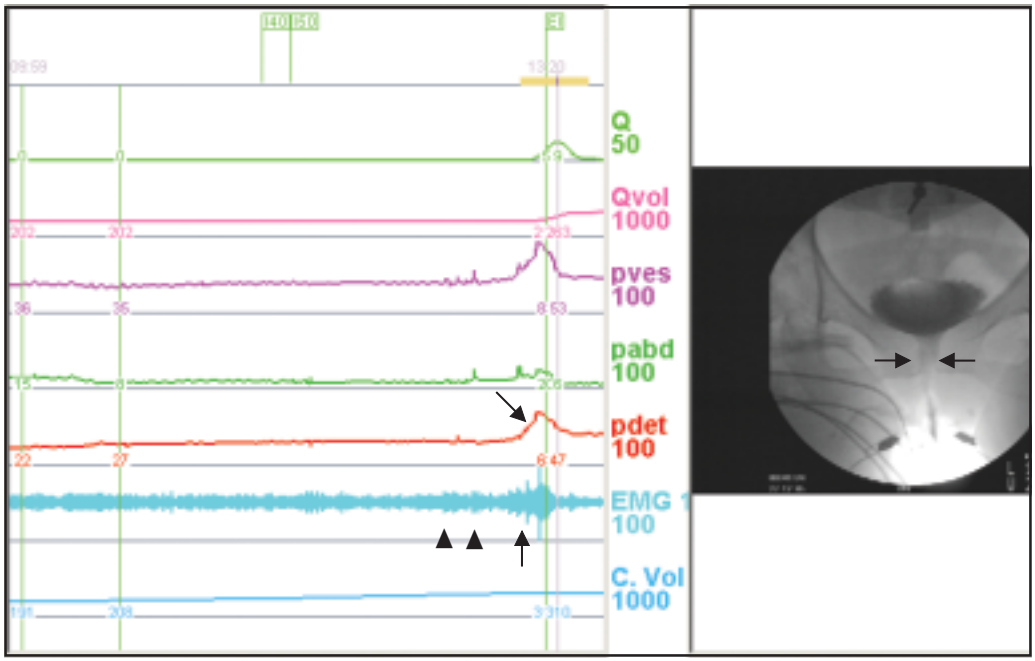

BRIEF HISTORY

A 75-year-old woman had progressive urgency and urge incontinence in the previous year. She has been diagnosed to have Parkinson's disease for 3 years and is currently treated with medications at a stable condition. An antimuscarinic agent was given but the urge incontinence was not completely relieved. She had no dysuria or miction pain but she complained of mild constipation after antimuscarinic therapy.

CLINICAL INVESTIGATION

The patient had a gait disturbance and resting tremor of the hands. Her consciousness was clear. Her urinalysis revealed no abnormalities and cystoscopy revealed a normal bladder and urethral appearance.

VIDEOURODYNAMIC FINDING

Videourodynamic study revealed a first sensation of bladder filling perceived at a volume of 120 mL and an urge sensation at 180 mL. Increased urethral sphincter electromyography (EMG) activity was noted when the bladder was almost full (arrow heads). The sphincter EMG activity further increased when detrusor contraction started (arrows). The maximal voiding pressure was 35 cm water but the detrusor pressure at the maximum flow rate (Qmax) was 20 cm water. The Qmax was 9 mL/s and the voided volume was 202 mL. During voiding the bladder neck and urethra were open and the bladder wall was rather smooth (arrows).

CLINICAL DIAGNOSIS AND MANAGEMENT

Urethral sphincter pseudodyssynergia is commonly seen in patients with chronic stroke or Parkinson's disease. Urethral sphincter EMG activity increases when the bladder is almost full and further increases when involuntary detrusor contraction occurs. When the patient relaxed her urethral sphincter, the uroflow started and the Qmax usually occurred at a detrusor pressure lower than the maximal voiding pressure. An antimuscarinic agent is the first choice for detrusor overactivity, however, because of the adverse effects of antimuscarinics, such as constipation, blurred vision, dry mouth and impaired cognitive function, these drugs should be used cautiously. If antimuscarinic therapy fails to relive the overactive bladder symptoms, intravesical injections of botulinum toxin A might be helpful.