Dysuria and Urgency Frequency in a Patient with Parkinson's Disease

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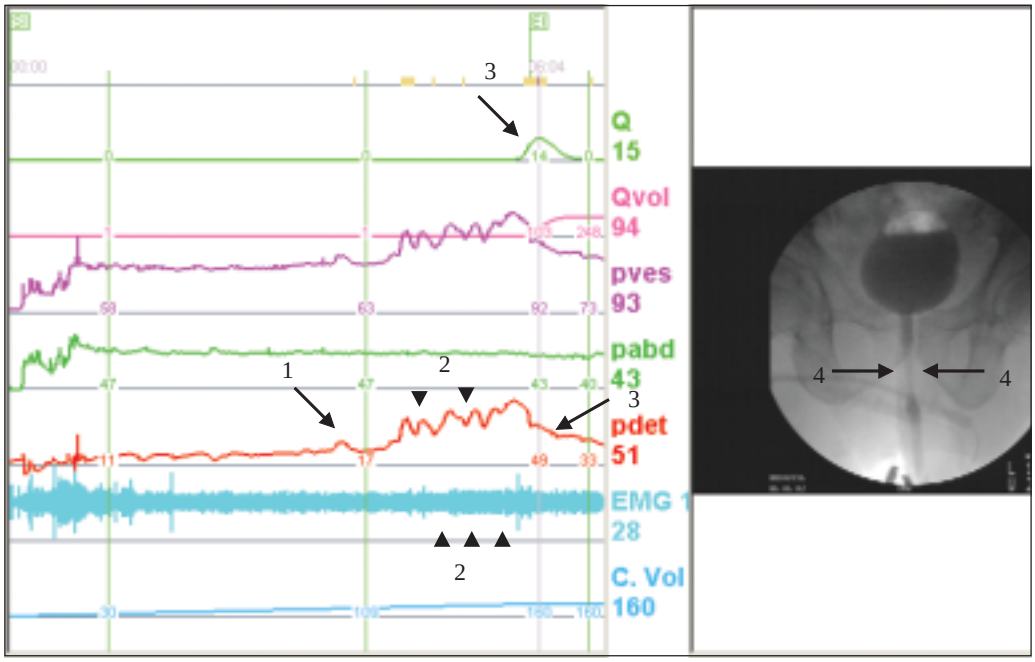

BRIEF HISTORY

A 72-year-old man was referred from the neurological department for evaluation of his difficult urination and urgency frequency syndrome. He had been diagnosed with Parkinson's disease for 5 years and was treated regularly with symptoms that waxed and waned. Lower urinary tract symptoms (LUTS) became exacerbated during the recent 1 year. He was treated for clinical benign prostatic hyperplasia (BPH) but the treatment failed.

CLINICAL INVESTIGATION

The patient had hand tremors and rigidity in motion, otherwise he was quite healthy. Digital rectal examination revealed a moderately enlarged prostate. Transrectal sonography showed that total prostatic volume was 36 mL with a transition zone index of 0.3.

URODYNAMIC STUDY

Videourodynamic study revealed detrusor overactivity (DO) elicited at the volume of 108 mL (1). The electromyography (EMG) increased activity during bladder filling. When patient was urged to void the sphincter showed further increased activity and the voiding detrusor pressure (Pdet) was high and poorly sustained (2). After detrusor contraction for 2 minutes, the patient's sphincter began to relax and urine started to flow out. Pdet at maximum flow rate (Qmax) was 32 cm water, Qmax was 14 mL/s and postvoid residual (PVR) was minimal (3). Voiding cystourethrography showed a patent bladder neck, patent prostatic urethra and a narrow urethral sphincter during voiding (4).

CLINICAL COURSE AND COMMENT

Patients with Parkinson's disease may present with normal voiding, DO, and dyskinesia of the urethral sphincter. The DO and dyskinetic urethral sphincter activity constitute urethral sphincter pseudodyssynergia during voiding and patients will have urgency and dysuria clinically. Some patients may have severe difficulty in urination when the bladder is not full but DO has occurred. Treatment targeting the BPH usually is unsuccessful to relieve LUTS. Medication with antimuscarinics for DO plus skeletal muscle relaxants will be helpful. If all medications have failed, urethral sphincter botulinum toxin A injection is also worth a to try. Surgical intervention for BPH is contraindicated in these patients.