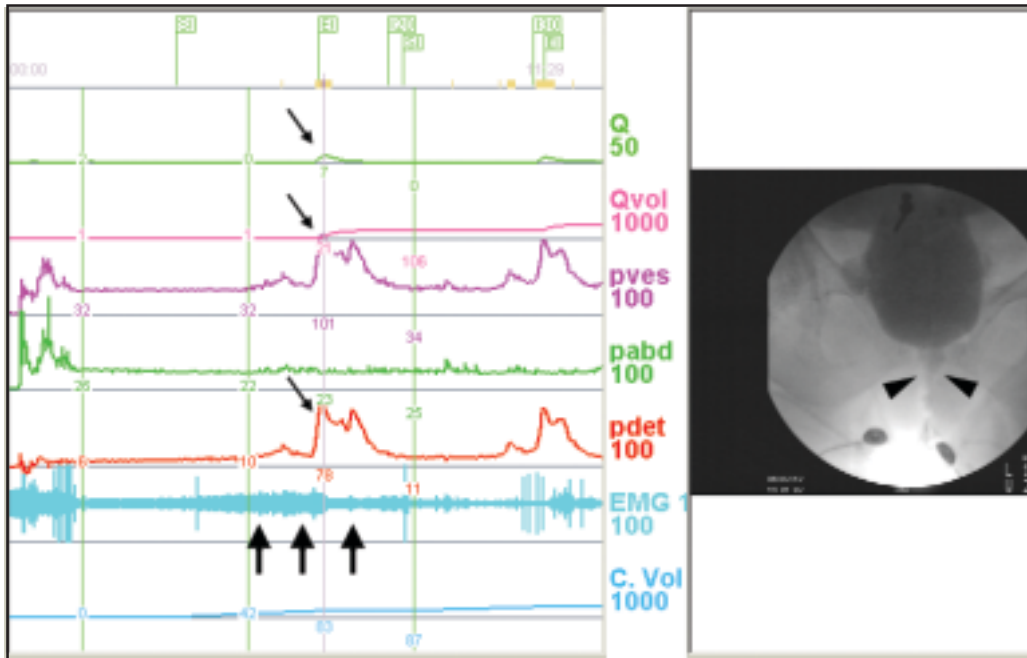


Parkinson's Disease with Overactive Bladder

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BRIEF HISTORY

A 63-year-old woman had been diagnosed with Parkinson's disease 5 years previously. The neurological symptoms exacerbated despite medical treatment. However, in the past year she noted that her lower urinary tract symptoms including urinary incontinence, difficult urination and a residual urine sensation, had become worse.

CLINICAL INVESTIGATION

She had extremity symptoms of Parkinson's disease such as tremor and bradykinesia. Urinalysis showed no abnormal findings. No bladder base hypermobility was noted during coughing and straining. Cystoscopy revealed a normal appearance of the bladder and urethra.

VIDEOURODYNAMIC FINDING

Uninhibited detrusor contractions occurred at a bladder capacity of 83 mL. Urethral sphincter electromyography activity increased with increasing bladder volume until the maximal voiding pressure was

reached when the urethral sphincter relaxed (arrows). The voiding pressure was high (61 cm water) (small arrows) and the maximum flow rate was low (7 mL/s). During the voiding phase the bladder neck and proximal urethra were wide open but the middle urethra was relatively narrow (arrow heads). The postvoid residual (PVR) was 100 mL. Intermittent urethral sphincter activity was also noted during the voiding phase.

CLINICAL DIAGNOSIS AND MANAGEMENT

This urodynamic study showed pseudodyssynergia of the urethral sphincter in a patient with Parkinson's disease. This condition is characterized by a high voiding pressure, low maximum flow rate and increased urethral sphincter activity in the initial voiding phase. Because of intermittent urethral activity during the voiding phase, the patient usually has a large PVR after interruption of urination. Medication with an antimuscarinic agent, an alpha-blocker and baclofen will be helpful. If medical treatment fails, urethral injection of botulinum toxin A followed by an antimuscarinic agent can provide a good therapeutic effect.