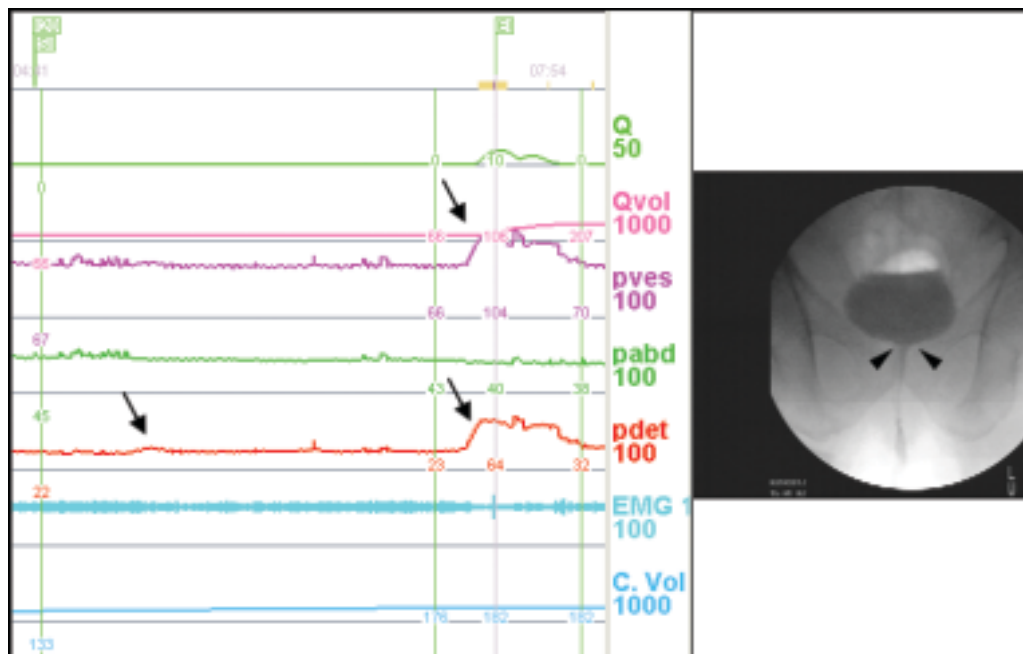


## Lower Urinary Tract Symptoms Suggestive of Benign Prostatic Hyperplasia in a Diabetic Elderly Man

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### BRIEF HISTORY

An 80-year-old man had been regularly treated for diabetes mellitus for 5 years. He had urgency, frequency and residual urine sensation for 3 years. He was treated for lower urinary tract symptoms (LUTS) suggestive of benign prostatic hyperplasia (BPH) with an alpha-blocker and a 5-alpha-reductase inhibitor, but the LUTS did not improve.

### CLINICAL INVESTIGATION

The total prostate volume was 33.4 mL, transition zone index was 0.51, maximum flow rate (Q<sub>max</sub>) was 6.8 mL/s, voided volume was 91 mL and postvoid residual (PVR) was 230 mL, prostate specific antigen was 1.602 ng/mL. Urinalysis was negative and he was neurologically normal.

### VIDEOURODYNAMIC FINDING

Phasic detrusor contractions occurred during the filling phase accompanied by a sensation of urgency. He felt first sensation of filling at 105 mL, full sensation (FS) at 127 mL, and uninhibited detrusor contraction occurred immediately after he got FS (small arrows). The voiding pressure was 40 cm water, Q<sub>max</sub> was 11 mL, PVR was 10 mL. During voiding, the bladder neck was open and the prostatic urethra was also wide (arrow heads). The urethral sphincter electromyographic activity was coordinated and showed adequate relaxation during voiding phase.

### CLINICAL DIAGNOSIS AND MANAGEMENT

Detrusor overactivity without bladder outlet obstruction is likely in this patient. Because the patient did not have BPH obstruction, treatment with alpha-blocker and 5-alpha-reductase inhibitor was not effective. Antimuscarinic agent is indicated to reduce the episode of detrusor overactivity and increases bladder capacity. The LUTS can be improved after antimuscarinic treatment.