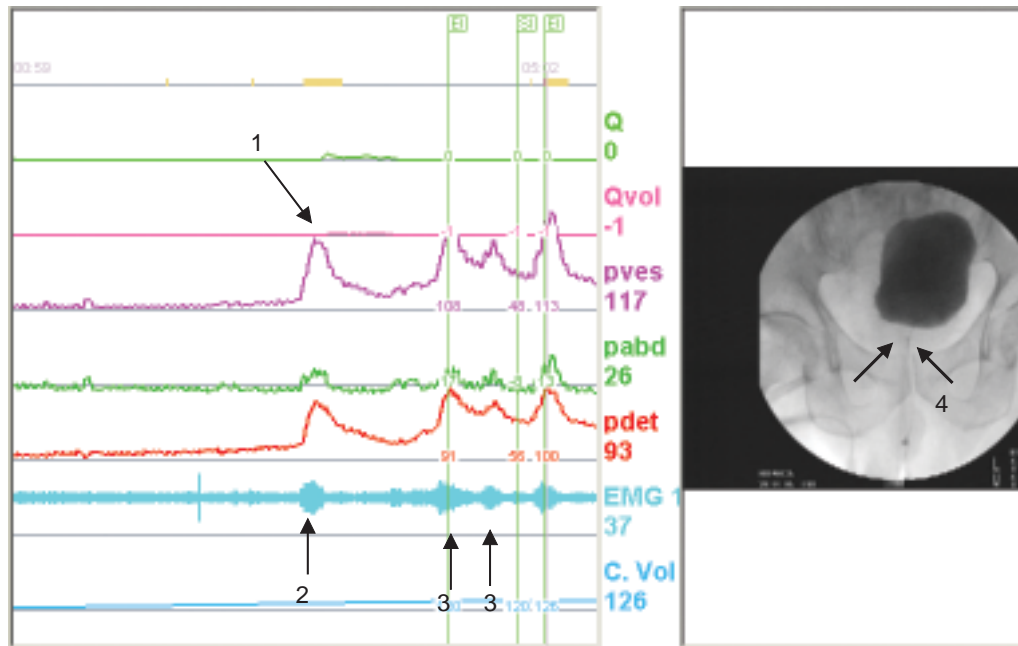


Detrusor Overactivity with Pseudodyssynergia and Benign Prostate Obstruction in a Male Stroke Patient

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BRIEF HISTORY

A 61-year-old man suffered from left thalamic hemorrhage resulting in right hemiplegia and hemianesthesia after surgery 3 years previously. He voided smoothly except for frequency urgency and occasional urge incontinence. Acute urinary retention occurred 1 month ago prior to his visiting our Outpatients Department (OPD) and an indwelling Foley catheter was placed at the emergency service. He was transferred to the Urology Department for further management.

CLINICAL INVESTIGATION

The prostate volume was estimated to be 36 mL by transrectal sonography of the prostate with a transition zone index of 60%. The anal tone was normal tense and bulbocavernosus reflex was intact. He could contract his anal sphincter and had no saddle anesthesia on physical examination.

URODYNAMIC STUDY

Videourodynamic study was performed using a 6 Fr double-lumen catheter, 8 Fr rectal balloon catheter and perineal surface patch electromyography (EMG) with an infusion rate of 30 mL/min. During bladder filling, an uninhibited detrusor contraction occurred at a vol-

ume of 84 mL (1) and a sudden increased urethral sphincter contraction occurred concomitantly (2). The detrusor contraction was inhibited but subsequent uninhibited detrusor contractions occurred with concomitant increased sphincter EMG activities, and the patient felt a strong desire to void with lower abdominal discomfort (3). Voiding cystourethrography showed a closed bladder neck and narrow prostatic urethra during detrusor contractions (4). The bladder capacity was about 150 mL.

DIAGNOSIS AND MANAGEMENT

Although the patient was only 61 years of age and the total prostate volume was 36 mL, a high transition zone index still might indicate the presence of bladder outlet obstruction (BOO) due to benign prostatic hyperplasia (BPH). Uninhibited detrusor contractions during the filling phase suggested poor cortical inhibition of the micturition reflex and concomitant increased sphincter activities indicated pseudodyssynergia in this chronic stroke patient. The high voiding pressure and closed bladder outlet suggested that his urinary retention was not caused by neurogenic voiding dysfunction but by anatomical obstruction by BPH. Therefore, transurethral resection of the prostate was necessary to relieve his BOO and resume normal voiding function.