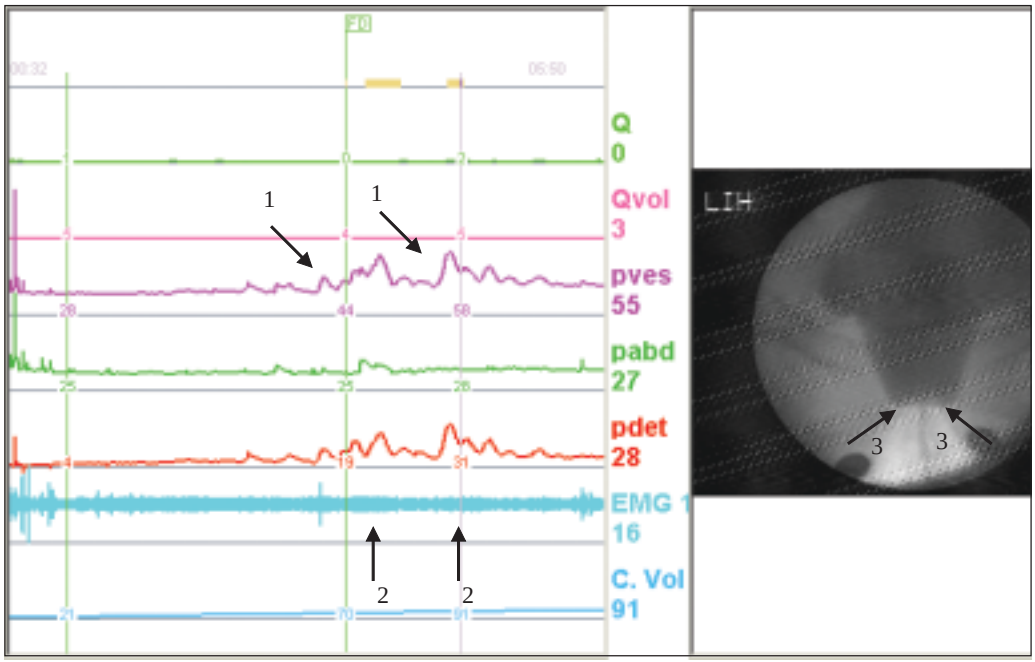
Possible Fowler's Syndrome and Chronic Urinary Retention

Hann-Chorng Kuo, M.D.

Department of Urology, Buddhist Tzu Chi General Hospital and Tzu Chi University, Hualien, Taiwan; E-mail: hck@tzuchi.com.tw



BRIEF HISTORY

An 18-year old female had suffered from chronic urinary retention symptoms for more than 3 years and this had begun with an episode of urinary tract infection. She also had chronic constipation and urgency sensation, but no urgency incontinence was ever experienced. She had been treated with many different medications but these had failed to relieve the symptoms. Therefore, her current treatment consisted of clean intermittent self-catheterization (CISC).

CLINICAL INVESTIGATIONS

Physically the patient was quite healthy. There were no anatomical abnormalities of the pelvic floor and the bulbocavernous reflex was intact. Furthermore, the anal tone was high with good spontaneous contraction of the anal sphincter. A cystoscopic examination revealed no urethral stricture.

URODYNAMIC FINDINGS

A videourodynamic study was carried out using a 6 Fr double-lumen catheter, an 8 Fr intrarectal catheter and surface electromyography (EMG) patches with an infusion rate of 30 mL/min. The first sensation of filling was noted at 52 mL, the full sensation occurred at 119 mL and the urge sensation started at 255 mL. Several uninhibited detrusor contractions occurred during the initial filling phase (arrow 1). External sphincter EMG activity increased concomitantly during the detrusor contractions but did not relax when she attempted to void (arrow 2). The maximal detrusor pressure (Pdet) was 47 cm of water with no flow. During voiding, the bladder neck was fully open and the proximal urethra was dilated, but the middle urethra was closed by a cutoff sign (arrow 3).

DIAGNOSIS AND MANAGEMENT

This case suggests Fowler's syndrome. There was no anatomical stricture in the urethra nor was a neurological lesion responsible for her voiding dysfunction. The cause of her chronic urinary retention may be a spastic urethral sphincter, due either to learned dysfunction or to increased sensory activity of the pelvic floor. This patient might be treated with a urethral sphincter injection of botulinum toxin A (BTX-A); however, because there might be abnormal EMG activity in the urethral sphincter, the BTX-A might not be able to inhibit any abnormal myogenic activity. If she is unable to benefit from a BTX-A injection, a continuation of the CISC is also feasible as a treatment.