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Difficult Urination after a Pubovaginal Sling Procedure

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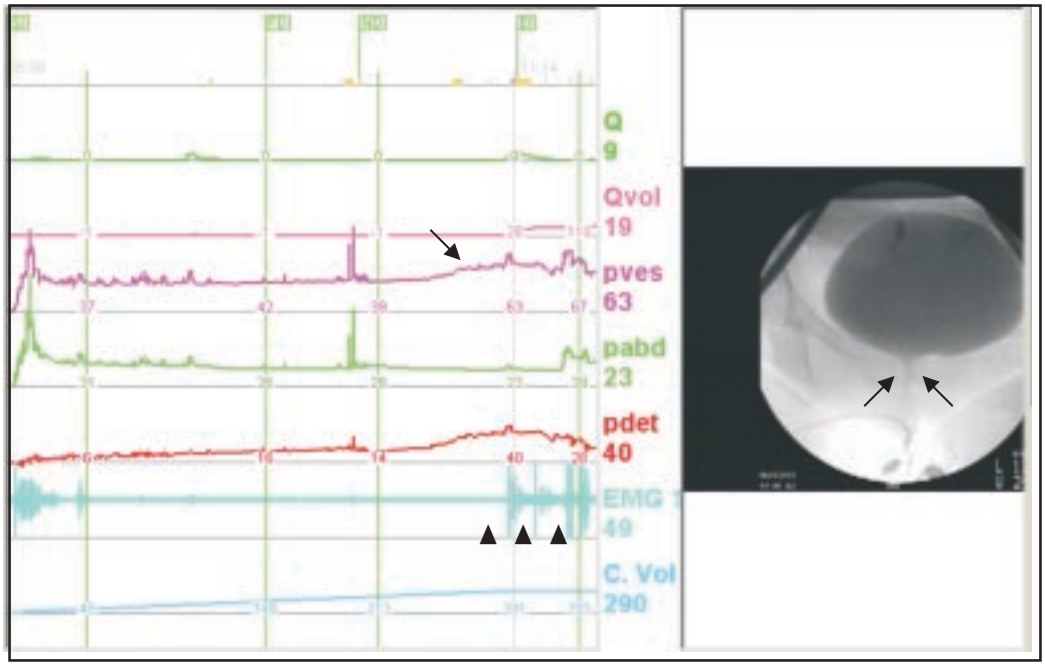

BRIEF HISTORY

A forty-two year old woman had suffered from stress urinary incontinence for more than 5 years. She also complained of urgency and frequency. A pubovaginal sling procedure was performed by placing a 2 cm wide polypropylene mesh sling below the proximal urethra. After surgery and the removal of the Foley catheter on the 2nd postoperative day, she developed difficulty with urination and a large postvoid residual (PVR).

CLINICAL INVESTIGATION

The abdominal wounds were clean and there was no retropubic hematoma. Cystoscopy revealed a patent urethra and bladder neck. During the Valsalva maneuver, the bladder base did not descend nor did urine leaked.

VIDEOURODYNAMIC FINDING

A videourodynamic study was performed on the 3rd postoperative day. Patient had first sensation of filling at a volume of 148 mL and full sensation at 213 mL. At a volume of 293 mL, she felt strong discomfort over lower abdomen. When she attempted to void, the increase in detrusor pressure was slow and the sphincter's electromyographic activity did not decrease (arrow heads). The voiding pressure was 24 cm of water at a maximum flow rate of 9 mL/s (arrows), the voided volume was 118 mL and the PVR was 200 mL. During the voiding phase, the bladder neck and proximal urethra were wide open (arrows) and no urethral stricture was found.

CLINICAL DIAGNOSIS AND MANAGEMENT

Poor relaxation of the urethral sphincter and pelvic floor muscles are common sequalae after the pubovaginal sling procedure. We can observe poorly relaxed pelvic floor muscles during voiding in this patient who had undergone a preoperative pressure flow study. When difficult urination and a large PVR persist after the sling surgery, iatrogenic bladder outlet obstruction should be considered first and a videourodynamic study is indicated to diagnose the possible cause. In this case, a diagnosis of poorly relaxed pelvic floor muscles was made and clean intermittent self-catheterization plus treatment with an alpha-blocker and a skeletal muscle relaxant (baclofen) should solve the problem.