Urodynamic Study After Bladder Augmentation

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BRIEF HISTORY

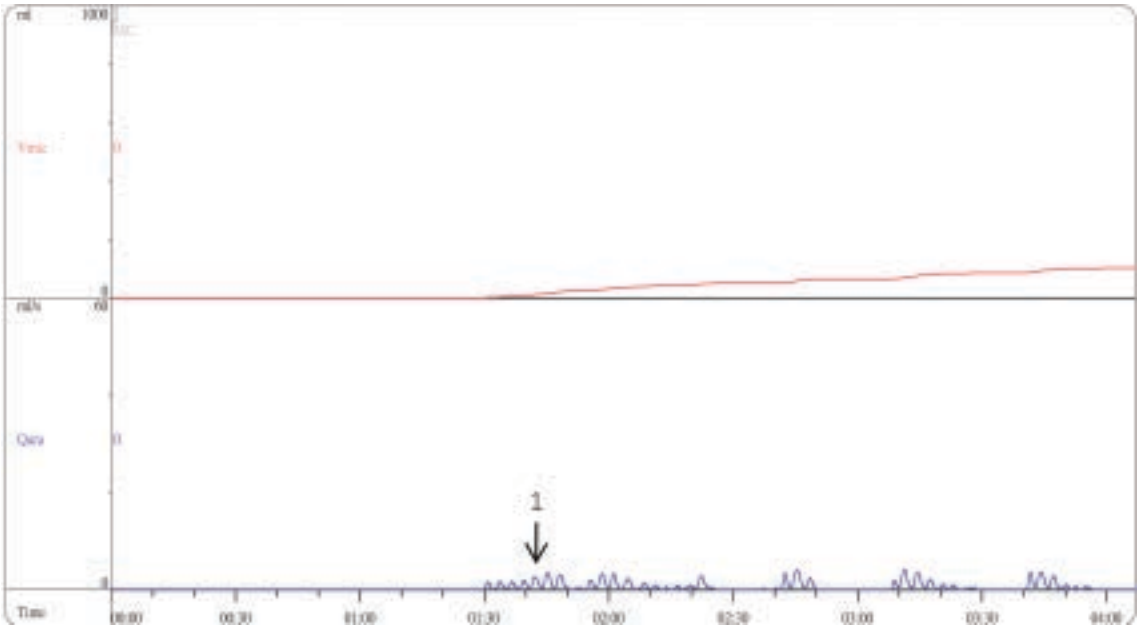
A 48-year-old man presented with weak stream urination and urinary frequency. Serial work-up revealed neurogenic bladder with high intravesicle pressure, resulting in bilateral UVJ stenosis and hydronephrosis. The renal function was impaired, with serum creatinine 2.0 mg/dL. Retrograde cystography showed Christmas-tree appearance with pseudo-diverticuli in the bladder. Bilateral antegrade double J and a trocar cystostomy were inserted to preserve renal function. The serum creatinine lowered to 1.8 after the procedure. The patient could not tolerate bearing a cystostomy tube and urine bag, so bladder augmentation was done with 50-cm ileum.

URODYNAMIC FINDING

UDS was done 4 months after the augmentation to evaluate the capacity and the compliance. Uroflowmetry showed intermittent flow pattern, with a 102 mL voiding volume and 350 mL residual volume (arrow 1). In the cystometry, first sensation was reported at 266 mL and maximum capacity at 495 mL. The bladder compliance was fair (arrow 2). The patient tried to void with abdominal pressure as there was no detrusor contraction (arrow 3). Maximal urethral closure pressure was 158 cmH2O in the urethral pressure profile (arrow 4).

CLINICAL FINDING

The UDS suggested improved bladder capacity and compliance, acontractile detrusor, and a tight external sphincter. There was still mild hydronephrosis after the operation. Nonetheless, the serum creatinine lowered to 1.5 mg/dL and remained stable during follow up.



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Case analysis