

Urinary Retention Following Herpes Zoster Virus Infection

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BRIEF HISTORY

A 75-year-old woman, suffered from left vulva pain, paresthesia and voiding difficulty for 3 weeks. At the time of her presentation to our out patient department, she complained of no voiding for at least 12 hours and continuous dribbling of urine. She also lacked any feeling of bladder fullness. Transurethral catheterization was performed after failure of spontaneous voiding and 1000 mL of retained urine was noted. She had transvaginal hysterectomy, anterior and posterior colporrhaphy 30 years ago due to pelvic organ prolapse. She had experienced a protruding mass over the introitus during voiding for about 4 years. However, the voiding difficulty exacerbated after the vulva pain began. She had chronic constipation, but no urinary incontinence was experienced.

CLINICAL INVESTIGATIONS

On pelvic examination, multiple groups of painful papulovesicles and pustules with hyperpigmentation were noted over the left vulva, perianal and buttock area, which involved the S₂-S₄ dermatome. The anal tone was normal and the spontaneous contraction of the anal sphincter was also adequate. The pelvic organ prolapse quantification evaluation demonstrated a stage III vaginal vault prolapse, stage II anterior vaginal wall defect consisting of a midline cystocele and a stage II rectocele.

URODYNAMIC STUDY

Free uroflowmetry revealed low average flow rate with two episodes of very low volume urination suggesting poor detrusor contractility. The patient emptied 40 mL with a postvoid residual of 290 mL (Fig. 1).

Pressure-flow-EMG study was performed with a 4F single lumen transurethral catheter in the bladder, a balloon catheter in the rectum and surface electrode placed at the perianal area. During filling phase, the study revealed absence sensation of bladder filling and also absence sensation to void including both first desire and strong desire to void. An acontractile neurogenic bladder was noted during the voiding phase.

DIAGNOSIS AND MANAGEMENT

This was a case of Herpes zoster infection with the reactivation of varicella zoster virus at the sensory root ganglion and anterior horn of spinal cord at the sacral micturation center. The viral infection can result in somatic and visceral motor neuropathy, and urinary retention may ensue as presented in this patient. The patient was admitted to the hospital and was treated with acyclovir 250 mg intravenously, three times a day for 5 days. Oral antibiotic and topical antibiotic were prescribed for the treatment of UTI and skin infection respectively. She was discharged after the foley catheter had been removed and was teach to perform intermittent self-catheterization four times a day by her caregiver.

Two weeks after discharged from the hospital, the patient complained of persisted left vulva pain and peresthesia, although the papulovesicles over the left sacral distribution were healing gradually. She was still unable to void spontaneously with complete absence of sensation to void. She returned 2 weeks after last seen, reported that the present of urge to void and episodic spontaneous voids for about 3 days. Uroflowmetry examination revealed biphasic urinary flow with abdominal straining pattern. The patient emptied 267 mL with a postvoid residual of 130 mL (Fig. 2). She was admitted one day later to the hospital for pelvic reconstruction surgery. The surgical procedures included sacrospinous colpopexy, anterior colporrhaphy and posterior

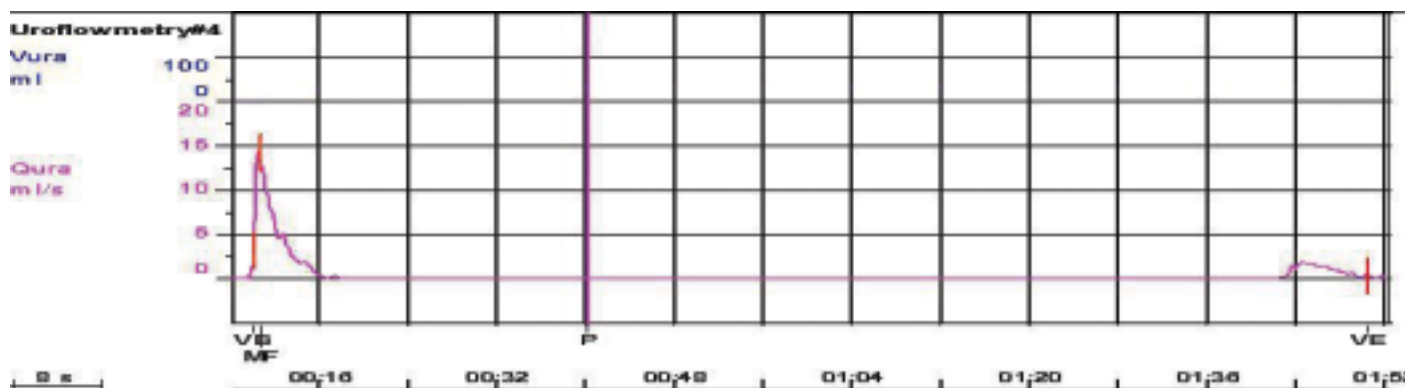


Fig. 1. Uroflowmetry performed at the first visit to our department revealed poor detrusor contractility. Qmax=14.4 mL/s, AFR=3.3 mL/s, VV=40 mL, PVR=290 mL, Vt=100 s.

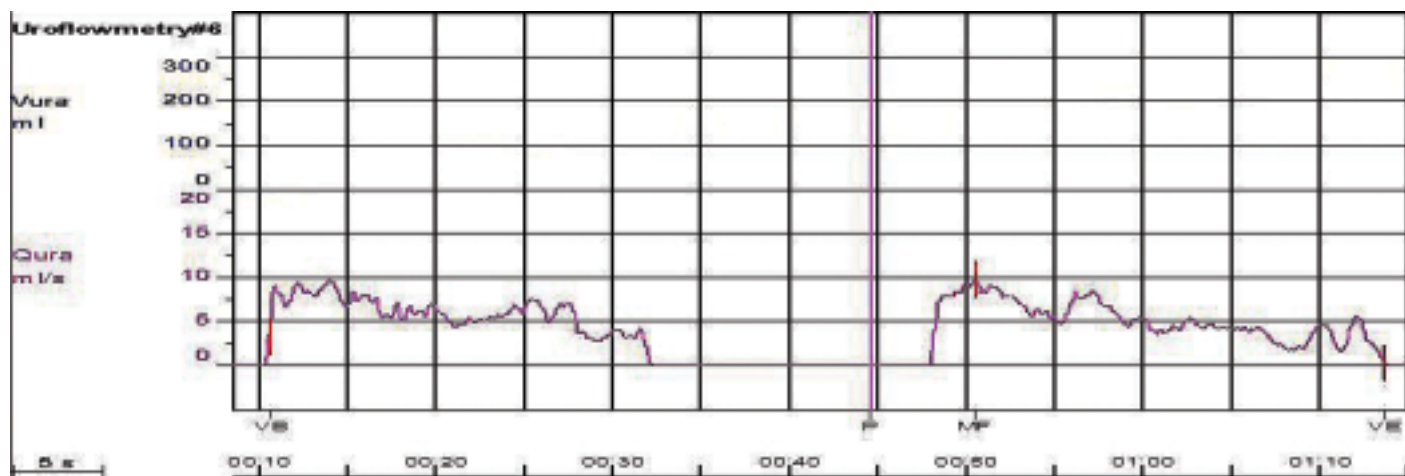


Fig. 2. Uroflowmetry performed 28 days later. Qmax=10 mL/s, AFR=5.6 mL/s, VV=267 mL, PVR=130 mL, Vt=63 s.

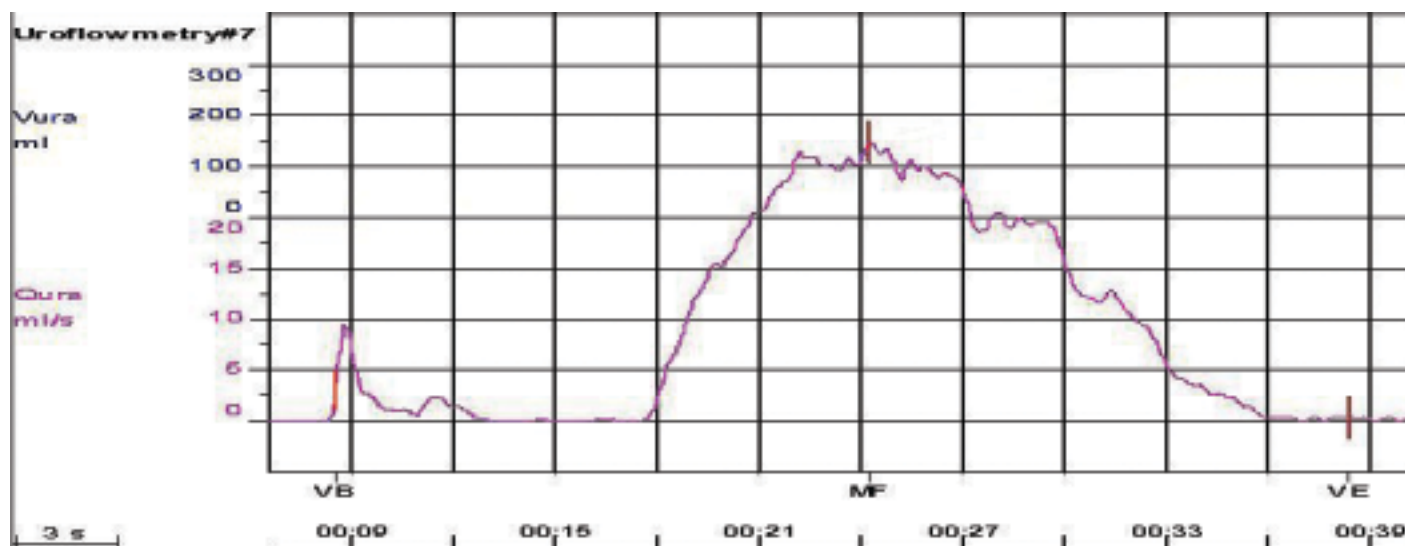


Fig. 3. Uroflowmetry performed after pelvic reconstruction surgery. Qmax=27.5 mL/s, AFR=13.5 mL/s, VV=299 mL, PVR=10 mL, Vt=30 s.

colporrhaphy. Uroflowmetry performed 7 days after the operation revealed dome-bell shape flow pattern with normal flow rate, although the opening time was prolong (Fig. 3).

Acute urinary retention associated with anogenital herpes infection has been thought to occur when the meninges or sacral spinal ganglia were involved [1]. The incidence of urinary retention as a complication of herpes zoster infection is thought to be 3.5% [2]. This condition may be considered to be reversible and has a generally favorable prognosis. The recovery time from the herpes zoster associated bladder sensory and voiding dysfunction usually range from 4 to 10 weeks [1,3]. During the recovery period, the patient could be managed with antiviral medication, analgesics and intermittent self-catheterization [4].

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