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Lower Abdominal Discomfort and Urinary Incontinence in a Woman

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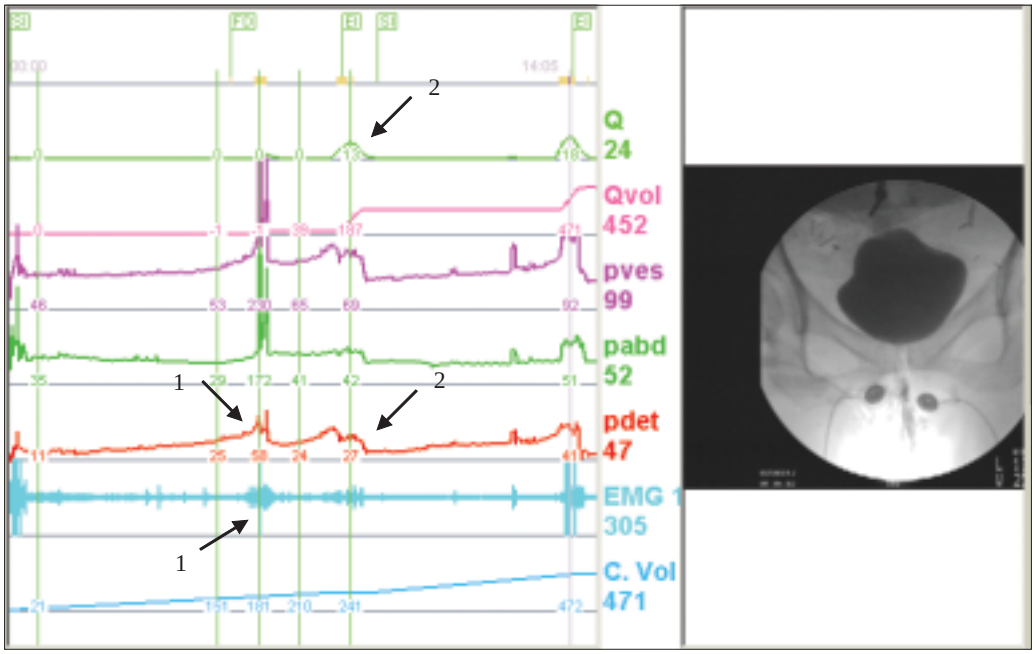

BRIEF HISTORY

A 53-year-old woman had undergone radical hysterectomy followed by radiation therapy for her cervical cancer 14 years prior to this admission. Difficult urination and chronic constipation developed after radiotherapy. Frequent urinary tract infection and acute pyelonephritis occurred 1 year prior to this admission and she suffered from lower abdominal discomfort, urgency and urge incontinence.

CLINICAL INVESTIGATION

The patient was chronically ill looking and emaciated. She was physically normal but used pads on her underwear for urine leakage. A lower abdominal scar was evident and the vagina was atrophic without bladder base hypermobility during the cough test.

URODYNAMIC STUDY

Video urodynamic study showed the bladder capacity was small (316 mL) and bladder compliance was fair to low (15 mL/cm water). The intravesical pressure increased gradually during bladder filling and the patient was guarding to void until she was allowed to urinate (1). During voiding, the voiding detrusor pressure (Pdet) was 17 cm water with a maximum flow rate (Qmax) of 14 mL/s (2). Postvoid residual (PVR) was minimal. Voiding cystourethrography showed a patent urethra.

CLINICAL COURSE AND COMMENT

Radical hysterectomy usually induces detrusor underactivity and radiotherapy usually results in a contracted bladder with low contractility. This woman, however, had detrusor overactivity in association with low bladder compliance. Although the Pdet was low, the patient voided smoothly without PVR, indicating her bladder outlet relaxation was good during voiding. A guarding phenomenon was noted during bladder filling causing a high pre-micturition pressure but a lower Pdet at Qmax. This phenomenon is frequently encountered in patients with detrusor overactivity and low bladder compliance. The hypertonic limb during bladder filling might imply detrusor overactivity. Antimuscarinic agent should benefit this patient. Intravesical botulinum toxin A injections might be a second line therapy to improve bladder compliance and eradicate urinary incontinence.