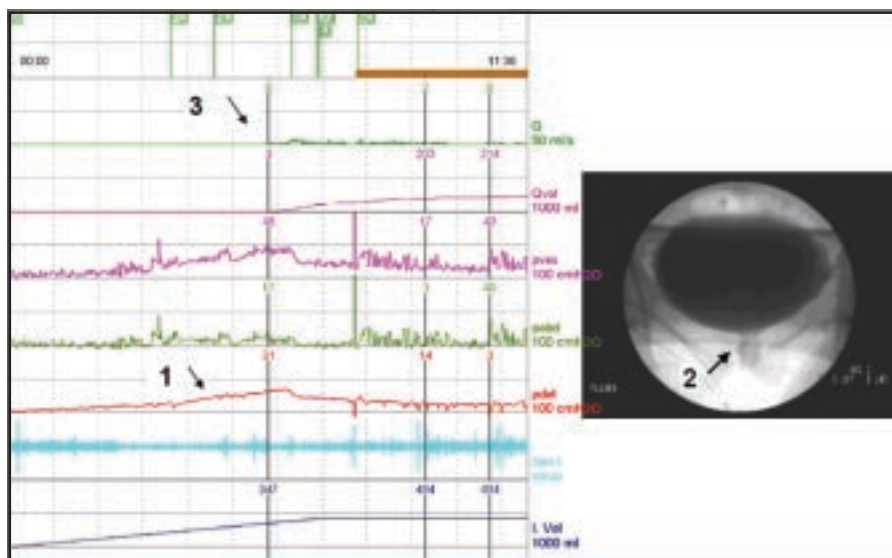


Urinary Incontinence after Transurethral Prostatectomy in a Patient with Amyotrophic Lateral Sclerosis

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BRIEF HISTORY

A 72 year-old man with amyotrophic lateral sclerosis was referred by a neurologist for management of urinary incontinence. The patient received transurethral resection of the prostate at another hospital one year previously. He had enuresis and urinary incontinence and wore a diaper when he visited the urological outpatient department. The patient and his wife wanted to know whether the prostatectomy was associated with the urinary incontinence.

CLINICAL INVESTIGATION

This patient slurred his words with nasal sounds and his movements were tight and stiff. An overactive gag reflex was also noted.

URODYNAMIC FINDINGS

A videourodynamic study (VUDS) was done. Cystometrography revealed neurogenic detrusor overactivity or so-called detrusor hyperreflexia (arrow 1) with a non-physiological filling rate of 60 mL/min. At the first desire to void, cystography showed a prominent prostate cavity without urine leakage (arrow 2). Incontinence with urgency occurred at a volume of 347 mL (arrow 3). During the voiding phase, the detrusor pressure at the maximum flow rate (Q_{max}) was 34 cmH₂O, the Q_{max} was 5 mL/s, and the post-void residual urine volume was 200 mL.

CLINICAL DIAGNOSIS AND MANAGEMENT

The diagnosis from this VUDS tracing was detrusor hyperreflexia with impaired contractility. The external sphincter was still competent under an adequate intravesical pressure and bladder volume. No evidence of detrusor sphincter dyssynergia or sphincter insufficiency was observed. Therefore, the etiology of this patient's urinary incontinence and enuresis may be attributed to urge or overflow incontinence. Scheduled time voiding was suggested. In addition, bethanechol 25 mg and baclofen 5 mg twice per day were recommended empirically after adjusting the medication and dosages according to the patient response to improve his quality of life and eliminate the need for diapers.

DISCUSSION

Amyotrophic lateral sclerosis is a form of motor neuron disease which may involve degeneration of the upper and lower motor neurons. The prognosis of people with amyotrophic lateral sclerosis is poor and the most of them die from respiratory failure, usually within three to five years from the onset of symptoms. Affected individuals may ultimately lose the ability to initiate and control all voluntary movement, although the bladder and bowel sphincters and muscles responsible for eye movement are usually, but not always, spared. In this case, however, the bladder was involved. Detrusor hyperreflexia with impaired contractility characterized the presence of upper motor neuron syndrome. In addition, the urinary incontinence in this patient did not result from the previous prostatectomy.