

URODYNAMIC ASSESSMENT OF LOWER URINARY TRACT DYSFUNCTION FOLLOWING SURGERY FOR POSTERIOR URETHRAL VALVES

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Background and Aims

Posterior urethral valves (PUV) are one of the main causes of congenital bladder outlet obstruction and can significantly impact long-term renal function. Despite successful surgical treatment of PUV, lower urinary tract dysfunction (LUTD) may persist. The aim of this study is to review the characteristics of lower urinary tract symptoms (LUTS) following PUV surgery and to discuss their management.

Methods

This is a retrospective descriptive study involving 35 boys presenting LUTS after surgery for PUV. All patients were evaluated in a neuro-urology consultation at the department of Physical Medicine and Rehabilitation. Each patient underwent a renal and bladder ultrasound, a voiding diary, and a full urodynamic assessment.

Results

The mean age of the patients was 6.8 years. LUTS was mainly characterized by recurrent urinary tract infections, urinary incontinence, and urinary frequency. Renal and bladder ultrasound consistently revealed urinary tract dilatation, a thickened, trabeculated bladder and a significant post-void residual volume. Urodynamic evaluation showed dysuria in 14 children with significant post-void residual volume on uroflowmetry. Filling cystometry revealed detrusor overactivity in 20 cases, large-capacity bladders in 9 cases, while 6 urodynamic studies were normal. All patients received specific management, including prescription of anticholinergic medications, training in clean intermittent catheterization and pelvic floor physical therapy.

Conclusion

Our study found results consistent with those reported in the literature. Urodynamic evaluation proves to be essential in the assessment of persistent LUTS after PUV repair, allowing for tailored therapeutic management.

Keywords: Posterior urethral valve, urodynamic study