

COMPLEX DIAGNOSTICS IN COMPLICATED URINARY INCONTINENCE IN CHILDHOOD

Hypothesis / aims of study

Routine use of complex investigations, including cystometry and cystoscopy is not justified in patients with urinary incontinence. Nevertheless organic causes for urinary incontinence should be ruled out in patients with complicated, i.e. therapy resistant urinary incontinence (1,2).

This retrospective study includes all children who underwent complex investigations (cystoscopy, cystometry) due to complicated urinary incontinence. The study was designed to evaluate the efficacy of the complex investigations to discriminate organic causes for the urinary incontinence and its influence on subsequent therapy.

Study design, materials and methods

Patients were included who suffered from complicated urinary incontinence, which was defined as not controlled urinary incontinence after taken appropriate history, basic investigations (i.e. ultrasound, uroflowmetry) and performed guidelines conform treatment. The observation period was from 2009-2012. Altogether 374 patients were treated during this time suffering from urinary incontinence. Inclusion criteria were complicated urinary incontinence; recurrent UTI's, age between 5-15 years; no previous cystometry or/and cystoscopy.

Patients underwent investigation under anaesthesia, urethroscopy and subsequent cystometric measurements 6 and 24 hours after narcosis.

Results

58 patients were included in the study (age 5-15 years, median 9.1 year, 29 girls, 29 boys). 18/58 (32%) patients were diagnosed with an organic/morphologic causes for the urinary incontinence, which were treated within the same narcosis. These causes were meatal stenosis in 10 girls and 7 boys and urethral valves in 1 boy. All patients showed a uneventful course after surgery and an improvement of the symptoms. 20/40 of the remaining patients showed pathological findings within the cystometry (overactive bladder n=8; low compliance bladder n=3; high compliance bladder n=2; dyssynergia n=5). These findings were treated according to the guidelines. 8/40 cystometric measurements were incomplete, 12/40 were normal. All patients tolerated the investigations well.

Interpretation of results

Cystoscopy and cystometry revealed pathological findings in 65% of the patients with complicated urinary incontinence. The investigation under anaesthesia and cystoscopy had an immediate influence on the treatment in 32% of the patients. The cystometric investigations lead to specific findings, which allowed subsequent specific treatment. The complex diagnostic approach enables a proper definition of the underlying pathology and the relevant treatment options (3).

The study has several limitations, i.e. the retrospective design, the single center study and the patients selection.

Concluding message

The used complex investigations for complicated urinary incontinence was effective for the discrimination of organic causes and other important findings in children with complicated urinary incontinence. Investigations under anaesthesia and cystometry should be applied for the effective management of complicated, therapy resistant urinary tract abnormalities. Nevertheless, these investigations are only indicated in a selected group of patients, since the majority of the children benefits from thorough history and physical examination.

References

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Disclosures

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