

URODYNAMIC PARAMETERS IN BOYS WITH URINARY INCONTINENCE UNDERGOING CYSTOSCOPY

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Introduction

Infravesical obstruction is considered a cause of urinary incontinence in boys. Failure of urotherapy or acute relapse after cessation of anticholinergic treatment warrant suspicion for this condition. Little is known about urodynamic investigations in these patients. The aim of this study was to compare urodynamic data in boys with overactive bladder complaints and incontinence, considered as obstructive, with cystoscopy findings.

Patients and methods

A cohort of 68 boys that have been treated for overactive bladder complaints and incontinence, in 2015, aged 4-18 years, have been reviewed. They all underwent cystoscopy after an initial urodynamic investigation. Urodynamic parameters collected were: Qmax (ml/sec), PQmax (cmH2O, bladder pressure during Qmax) and URA (urethral resistance algorithm). A Cut-off value for obstruction was PQmax > 55 cmH2O. Cystoscopy findings were reconsidered for this study. The degree of infravesical obstruction was scored by three clinicians on a scale of 1-5 judged on the operation report. A score was given of 1=no obstruction (group 1), 2-3=moderate obstruction (group 2) and 4-5=severe obstruction (group 3). Next these cystoscopy findings were compared with the initial urodynamic findings to find a correlation in the obstructive parameters.

Conclusion

With a 6Fr urodynamic catheter a cut-off pressure of PQmax 55 cmH2O and an URA of > 30 has a high specificity for diagnosing urethral obstruction in boys with overactive bladder complaints. Despite the fact that the not obstructed group is too small to give a clear cutoff value for URA in non-obstructed boys, there is a correlation between the cystoscopy findings and urodynamic obstruction parameters.

We will continue to study urodynamic parameters to define obstruction in boys, with special interest in a urethral resistance algorithm.

Results

Mean	Group 1 no obstruction (n=4)	Group 2 moderate obstruction (n=31)	Group 3 severe obstruction (N=33)	Total group (n=68)
Age during operation (years)	10.2	8.2	8.2	8.2
Medication or urotherapy	25 %	74%	76%	72%
Qmax (ml/sec)	10.6	10.1	9.1	9.7
PQmax (cmH2o)	63.5	66.6	72.8	69.4
URA	30.2	31.7	37.3	34.3

The difference between URA in groups 2 and 3 was not statistically significant ($p=0.097$), although there is a clear tendency for a higher URA in the more obstructed patients