

DOES OVERACTIVE DETRUSOR INFLUENCE THE SUCCESS OF ENDOSCOPIC TREATMENT IN VESICoureTERAL REFLUX?

Hypothesis / aims of study

Up to 50% percent of children with vesicoureteral reflux (VUR) may have associated voiding dysfunction. The purpose of this study was to assess the impact of overactive detrusor (OAD) on the success of endoscopic treatment (ET) in VUR patients.

Study design, materials and methods

A total of 44 children (39 girls and 5 boys) with a mean age of 7.5 years (SD 3.02) with VUR were included in the study. Primary VUR was confirmed with voiding cystourethrogram (VCUG). All patients underwent standard multi-channel urodynamic testing using a 6-french double lumen urethral catheter, rectal balloon manometer and perineal patch electrodes. The patients were endoscopically treated by subureteral transurethral injection. Two groups were defined based on urodynamic testing as OAD and normal urodynamic results. Statistical analysis was performed using Student's t test, Mann-Whitney U test and Fischer's exact test when applicable. A p value <0.05 was considered as significant.

Results

Twenty nine children (65.9 %) had OAD, 13 patients had normal urodynamic results and 2 had other findings (impaired detrusor contractility and infravesical obstruction). This study showed that preoperative OAD had a negative impact on the outcome of ET (p<0.05). Reflux grade, cystometric capacity and OAD pressure were not statistically significant for ET's success rate. Table 1 and 2 show success of ET and urodynamic results, respectively.

Table 1. Laterality and ET success

VUR	number	%	ET Success %
Bilateral	20	45.5	25
Right	8	18.2	75
Left	16	36,4	53,3
Total	44	100	

Table 2 . Urodynamic results.

	N	Min.	Max.	Mean	SD
OAD pressure (cmH ₂ O)	27	13	150	35.52	28.10
Cystometric cap.(cc)	43	33	501	217.70	123.2

Interpretation of results

Cystometric capacity and OAD pressure were not significant for success rate of ET, probably related to limited number for statistical analysis.

Concluding message

These findings provide preliminary information on the impact of OAD on the success of ET in VUR patients. We advise to perform urodynamic testing if ET was unsuccessful for VUR.

References

1. Altobelli E et al. Urodynamics investigation on children with vesicoureteral reflux identifies overactive bladder and poor compliance in those with voiding dysfunction, Ped Surg Int 2011;Jan;Epub ahead of print

Specify source of funding or grant	no grant in this study
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
Is this a Randomised Controlled Trial (RCT)?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	Because this study includes routine daily works
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes

