

## EFFECTIVENESS OF VESICO-URETERAL REFLUXES TREATMENT IN NEUROGENIC BLADDER WITH DETRUSOR OVERACTIVITY OR SMALL COMPLIANCE ACCORDING TO DIFFERENT METHODS

### Hypothesis / aims of study

The observations of vesico-ureteral reflux in neuropathic bladder dysfunction connected with abnormal intravesical pressure with regard to different methods of treatment

### Study design, materials and methods

Vesico-ureteral refluxes were diagnosed in 156 out of 308 patients with neurogenic bladder with high pressure of detrusor. Unilateral reflux was observed in 94 children, while bilateral refluxes occurred in 62. Fifth degree of reflux appeared in 55 patients, fourth in 41, third in 38 and second in 22 children. The infants and young children up to the age of three, commonly with fifth or fourth degree of reflux and with changes in DMSA renal scintigraphy, were generally qualified to formation of vesico-cutaneous fistula. This kind of management was introduced immediately in 24 children, in another 3 children it was used as a second step after ineffective pharmacological treatment with enlargement of degree of reflux. Eighteen patients in whom the treatment of neurogenic bladder was started too late lost the kidney function on the side of reflux. The non-functional kidney was removed in these children simultaneously with ureterocystoplasty. In 111 patients out of 156 children with vesico-ureteral reflux anticholinergic agents such as oxybutynine, tolterodine or solifenacin were applied.

### Results

Reflux disappeared in 18 children while in 9 was observed its reduction.

The conservative treatment with CIC and anticholinergic agents proved effectiveness in 64 children but revealed to be ineffective in 47. In 50 children out of 64 with effective conservative treatment reflux disappeared while the decrease of degree of reflux was observed in 14, in both with simultaneous reduction of detrusor pressure. The injection of bulking agents was used with good results in these cases. In 47 patients without changes of degree of reflux and level of detrusor pressure were used different methods of bladder augmentation. Autoaugmentation cystoplasty was applied in 10 patients, ileocystoplasty in 11 and colcystoplasty in 26 children. In autoaugmentation group, reflux disappeared in 7, and it decreased to third degree in 3 children. 9 children from ileocystoplasty group demonstrated the disappearing of reflux while the reduction of degree of reflux was observed in other 3. In the patients with colcystoplasty refluxes disappeared in 18 cases, in other 8 reduced the degree to second or third. All patients, in whom the decrease of degree of reflux was observed were qualified to injection of bulking agents.

### Interpretation of results

Our attention should be paid to early beginning of proper treatment according to condition of upper urinary tract, level of abnormal detrusor pressure and bladder volume.

Ineffective conservative treatment should be immediately changed after short time of urodynamic observations.

### Concluding message

Adequately quick reducing of abnormal high detrusor pressure is sufficient for reflux disappearance or to reduction of its degree

<b>Specify source of funding or grant</b>	<b>No funding or grant</b>
<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>No</b>
<b>This study did not require ethics committee approval because</b>	<b>this is retrospective study</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>No</b>