

THE EFFECT OF BOTILINUM NEUROTOXIN TYPE A ON URINARY CONTINENCE IN CHILDREN WITH MYELODYSPLASIA

Hypothesis / aims of study

To evaluate the clinical and urodynamic efficacy of intradetrusor botulinum neurotoxin A (BONT-A) injections on urinary continence in children with myelodysplasia, who are refractory to anticholinergic treatment and clean intermittent catheterization (CIC).

Study design, materials and methods

Between 2006 and 2011, 17 children (7 boys and 10 girls) with myelodysplasia were treated by intradetrusor injections of BONT-A (Botox, 10 U/ kg) in 30 different locations of the bladder. All children were previously treated with oral anticholinergics and CIC for urinary incontinence. Urodynamic studies were performed before and at 4th week after BONT-A injections. Preoperative urological findings were compared with postoperative findings.

Results

The mean age was 8,8 +/- 2 years and all children were incontinent. The mean detrusor leak point pressure was 58 cmH₂O before BONT-A injection. Sixteen children became completely dry between catheterizations after BTA injection. The mean cystometric bladder capacity was increased and the mean maximum intravesical pressure was decreased significantly ($p < 0.05$ - table). The mean duration of clinical efficacy was 7 +/- 2 months and 5 children were treated with a second BONT-A injection.

Table 1. Pre and post operative cystometric capacities and maximum intravesical pressures of our patients

	Pre BONT-A Injection	Post BONT-A Injection	P value
Cystometric bladder capacity (ml)	138,3(±)86	230.25(±)138,5	<0.05
Maximum intravesical pressure (cm H ₂ O)	74,5(±)72,9	29,1(±)13,1	<0.05

Interpretation of results

Intradetrusor BONT-A injection is an effective short-term treatment of urinary incontinence in children with myelodysplasia.

Concluding message

Intradetrusor BONT-A injection is a good alternative therapy before augmentation cystoplasty.

<i>Specify source of funding or grant</i>	No disclosure
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No

<i>This study did not require ethics committee approval because</i>	Retrospective
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	No