Hypothesis / aims of study
To examine the effects of repeated suburothelial injections of abobotulinum toxin in children with neurogenic detrusor overactivity (NDO), resistant to antimuscarinic medication, and assess the urodynamic parameters, continence and systemic side affects over the long term.

Study design, materials and methods
Between 2005 and 2012, 17 patients aged 8-16 years, with urodynamically proven neurogenic detrusor overactivity were treated with repeated suburothelial injections of abobotulinum toxin. Symptomatic relief and continence were considered as the primary outcome. Secondary outcome measures included improvement in NDO and urine leak on urodynamics, bladder compliance and a decrease in maximum detrusor pressures.

Results
Complete data was available for 15/17 patients. Two lost to follow-up. At the end of the study period 12 patients continue with repeated treatment, one refused further surgical interventions, one opted for ileocystoplasty and mitrofanof procedure and one has persistent incontinence on intermittent basis and is considering ileocystoplasty.

Symptomatic improvement was achieved in all and continence was achieved in 12. Maximum detrusor pressures were markedly reduced with repeated treatment, and bladder compliance was maintained on urodynamic testing in 12/15 patients.

One patient developed autonomic dysreflexia during procedure .One patient developed transient muscle weakness in association with high dose which resolved spontaneously over 3 weeks.

Interpretation of results
We feel that repeated suburothelial injection of abobotulinum toxin in treatment of children with neurogenic detrusor overactivity is both safe and effective in the long term.

Concluding message
Repeated suburothelial abobotulinum toxin injections should be considered in children with neurogenic detrusor overactivity resistant to antimuscarinic medication.

Disclosures
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