

PRESERVED MICTURITION IN PARKINSON PATIENTS TREATED WITH BOTULINUM TOXIN FOR NEUROGENIC BLADDER DYSFUNCTION

Hypothesis / aims of study

Botulinum toxin A (BTX) treatment in patients with neurogenic bladder dysfunction is known to be an effective therapy option. Several studies showed that its pharmacological effects significantly reduce detrusor muscle overactivity. But, modulation of neuromuscular transmission might also result in urinary retention, an adverse event why BTX treatment in parkinson patients is still under debate.

Study design, materials and methods

We treated parkinson patients (n=19), that were nonresponders to anticholinergic treatment with BTX. Preoperatively, patients underwent clinical assessment (including voiding diary), urodynamics, cystoscopy and vaginal inspection. All patients received 100-300 IU BTX. We used 1IU/ml NaCl per injection site. BTX was applied to the detrusor wall leaving the bladder trigone untreated. The operation was performed under local as well as general anaesthesia, due to patient's preferences. Postoperatively outcome measurements were conducted similar to preoperative procedures again including urodynamics.

Results

Urodynamics showed an improvement in all urinary functions. The maximum bladder capacity increased from 168ml to 276ml on average, first urge to void from 109ml to 193ml, respectively. Detrusor compliance normalised from 19cm/H2O to 28cm/H2O on average. Detrusor overactivities were significantly reduced. After the treatment, all patients were able to void spontaneously. Post void residual bladder volume was 7ml on average (0-35ml). No significant urinary retention was reported. No systemic side effects were obvious during treatment. 10 patients underwent repeated injections. Time period between the first and second injection was 10 months.

Interpretation of results

In contrast to the common apprehension analogue to most other neurogenic bladder dysfunctions, the risk of urinary retention or a rising post volume residual seems to be minor.

Our data show the effectiveness and safety of BTX treatment in patients with Parkinson's disease. All patients were able to void voluntarily after the injection.

Concluding message

BTX-treatment in patients with neurogenic bladder dysfunction due to Parkinson's disease is feasible and an effective therapy option.

<i>Specify source of funding or grant</i>	nn
<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>	Yes
<i>Specify Name of Ethics Committee</i>	none
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes