

## **MORE THAN 15 YEARS EXPERIENCE WITH INTRADETRUSOR ONABOTULINUMTOXINA INJECTIONS FOR TREATING REFRACTORY NEUROGENIC DETRUSOR OVERACTIVITY: LESSONS TO BE LEARNED**

### Hypothesis / aims of study

Intradetrusor onabotulinumtoxinA injections have become a well-established and widely accepted therapy for refractory neurogenic detrusor overactivity (NDO). However, little is known about long-term outcomes. The aim of this study was to assess long-term outcomes of onabotulinumtoxinA injections and patients' adherence to treatment.

### Study design, materials and methods

From January 2010 to December 2015 a consecutive series of 52 patients who underwent first intradetrusor onabotulinumtoxinA injections for refractory NDO >10 years ago were prospectively evaluated at a single university spinal cord injury (SCI) centre. Long-term follow-up data before January 2010 was retrospectively completed. Primary outcome was current neuro-urological treatment. Secondary outcomes were urodynamic parameters. For data comparison, the paired/unpaired t-test, chi-square test, and McNemar test were used.

### Results

Mean duration since first intradetrusor onabotulinumtoxinA injections was 12±2 years. Most patients (61%, 32/52) suffered from SCI, 15% (8/52) from spina bifida, 14% (7/52) from multiple sclerosis (MS), and the remaining (10%, 5/52) from other neurological disorders. Almost 60% (31/52) of all patients are continuing with intradetrusor onabotulinumtoxinA injections, but only 14% (1/7) of the patients with MS. Lack of clinical and/or urodynamic response (21%, 11/52) and switching to another treatment (antimuscarinics and/or neuromodulation) despite appropriate onabotulinumtoxinA efficacy (19%, 10/52) were the reasons for discontinuation. In patients continuing onabotulinumtoxinA treatment, the positive effect was sustained after repeat injections (all  $p < 0.05$ ).

### Interpretation of results

Although intradetrusor onabotulinumtoxinA injections is a highly effective therapy for refractory NDO, about 40% of the patients will discontinue treatment over time. All prospective neurological patients should be informed about this and it needs to be considered in the treatment decision-making process.

### Concluding message

About 60% of the patients treated with intradetrusor onabotulinumtoxinA injections for refractory NDO will continue this therapy in the long-term, with good therapeutic effects.

### Disclosures

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