

REDEFINING THE INDICATION TO REPEAT ONABOTULINUM TOXIN A IN PATIENTS WITH NEUROGENIC DETRUSOR OVERACTIVITY (NDO) AFTER SPINAL CORD INJURY (SCI).

Hypothesis / aims of study

Onabotulinum toxin A is the preferred choice for refractory neurogenic incontinence (1). Beneficial effects of onabotulinum toxin A injection treatment tend to wane with the increasing length of follow up, resulting in breakthrough incontinence. Patients are provided the repeat dose of onabotulinum toxin A 'on demand' basis (2).

Though incontinence is quite a common symptom, yet it is nonspecific in nature and multifactorial in causation. Incontinence may be caused by many other factors other than NDO alone (3). Thus, incontinence by itself may not be an appropriate reason to offer re-treatment with onabotulinum toxin A.

The study was undertaken to evaluate the value of urodynamic (UDS) findings, in comparison to mere symptoms of incontinence, in deciding the need and timing for repeat treatment with onabotulinum toxin A in SCI.

Study design, materials and methods

We reviewed the records of fifty SCI patients, treated at our institution, over the last two years. Age range was 20 years to 60 years with a mean of 38 years, having 30 male and 20 female patients. These patients developed refractory NDO to standard anti-cholinergic treatment and were subsequently treated with intravesical onabotulinum toxin A injection (300 units).

Clinical follow up including the bladder diary review was done every three months for a total duration of one year. Reports of UDS along with Ice water test (IWT), done at 6 and 12 months after the given treatment, were also reviewed.

Results

At 6 months follow up, 30/50 patients (60%) had noted significant leaks, with a mean of 16 leaks/week. 80% of these patients with significant incontinence (24/30) still had safe storage pressure and persistent suppression of NDO on UDS and 60% of them (18/30) had negative IWT.

At 12 months follow up, 40/50 patients (80%) were found to have significant leaks, with a mean of 30 leaks / week. 40% of these patients (16/40) with significant incontinence still demonstrated safe storage pressure and persistent suppression of NDO on UDS and 20% of patients (8/40) had negative IWT.

Interpretation of results

There is poor correlation between the extent of incontinence and the urodynamic findings. Urinary leaks may occur due to many unrelated and life style issues and do not necessarily indicate the re-emergence of NDO and the need for onabotulinum toxin A re-treatment.

Traditionally, UDS is considered essential before offering the first treatment session of onabotulinum toxin A in patients with SCI. It would be appropriate, if the re-treatment be considered, guided by the adverse UDS findings, and not merely by the symptoms of incontinence alone.

Concluding message

Given its cost and invasiveness concerns, the need to repeat onabotulinum toxin A treatment should be governed by the adverse urodynamic parameters indicating unsafe storage.

Mere symptom based guidance has the potential to cause overtreatment.

References

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Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** it was a retrospective review of records **Helsinki:** Yes **Informed Consent:** Yes