580

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100 UNITS OF INTRA-DETRUSOR ONABOTULINUMTOXIN A FOR IDIOPATIC OVERACTIVE BLADDER PATIENTS REFRACTORY TO ANTIMUSCARINIC THERAPY

Hypothesis / aims of study

Onabotulinumtoxin A or Botox ® (BTX) have been used in patients with neurological and idiopathic overactive bladder (OAB).
BTX is approved by the FDA to treat urinary incontinence resulting from overactivity of the bladder detrusor muscle caused by Multiple Sclerosis, or other neurological condition, in adults who have an inadequate response to anticholinergic medications or are unable to tolerate them. The optimal dose of BTX for idiopathic detrusor overactivity (IDO) refractory to conventional antimuscarinic therapy remains inconclusive. 50 to 300 units of BTX were injected into the detrusor.
Recently, Nitti et al. reported results from a large placebo-controlled trial of 100 units of BTX on 557 patients with idiopatic OAB. At 3 months, treated patients had greater improvement in incontinence episodes than placebo.
A dose-ranging phase II randomised study compared doses of BTX (50, 100, 150, 200 and 300 units) to placebo in improving urgency and weekly incontinence episodes. There was a durable effect with doses of 100 units.
We evaluated the subjective efficacy and effect duration of 100 units of intradetrusor injections of BTX in Chilean patients with IDO resistant to antimuscarinic therapy.

Study design, materials and methods

Between December 2007 and December 2013, in a prospective study, 86 consecutive patients with refractory idiopatic detrusor overactivity received a single dose of 100 units of BTX into the detrusor at one Chilean institution.
Before treatment, a multichannel urodynamic study was perfomed in all patients. We confirmed detrusor overactivity in all of them.
We used general anaesthesia and a rigid cystoscope with nontrigonal injection technique and 30 intradetrusor injection sites, 100 Units of BTX, diluted in 30 ml 0,9% saline solution (3,3 unit for ml.) or diluited in 20 ml 0,9% saline solution (5 unit for ml.) , were injected.
Patients were followed postoperatively for evidence and duration of efficacy and complications.

Results

The study included 60 women and 26 men (86 patients), with a mean age of 62.8 ± 11.4 years (range 44 to 88 years).
In 57 (66,3%) procedures, patients showed clinically 100% response.
A partial improvement in regard to subjective symptoms was seen in 11 (12,7%) patients.
Two patients, who had partial response to the injections, got complete response when we added Trospium.
In 18 procedures (20.9%), patients experienced no improvement in their symptoms following treatment.
All respondents exhibited reduced symptoms within the first week after treatment.
There were few adverse effects.
We did not have cases of urine retention.
7 patients had urinary tract infection, 3 of them with recurrent urinary tract infection and significant post-void residual.
Effects were found to last a median of 9.3 months (range 4-43 months).

Interpretation of results

BTX intravesical injections provided clinical improvement in all OAB symptoms in refractory IDO patients. Improvements in symptomatology for respondent patients was spectacular.
There were no significant perioperative complications in our patients.

Concluding message

Our data demonstrate that intradetrusor 100 units BTX injection appears to be an effective, safe and durable treatment for IDO, provides a well-tolerated and rapid clinical improvement of symptoms. BTX ameloriates symptoms within the first week after treatment and its effects endure for several months.

References

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Disclosures

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