

NO REFLUX AFTER INTRAVESICAL INTRAMUSCULAR BOTULINUMTOXINE A INJECTION (IIBAI), CONVENTIONAL VIDEOURODYNAMIC BEFORE AND 6 WEEKS AFTER IIBAI IN THE TREATMENT OF NEUROGENIC AND IDIOPATHIC DETRUSOR OVERACTIVITY

Hypothesis / aims of study

Botulinumtoxin A injection (IIBAI) is the second line treatment in neurogenic and idiopathic detrusor overactivity non responsive to drugs. However different references cite the risk of vesicorenal reflux after intratrigoanal injection of botulinumtoxin A, in this minimally invasive and effective treatment option.

Study design, materials and methods

In the time of 2001 till 2006, 50 patients with neurogenic detrusor overactivity and 118 patients with idiopathic detrusor overactivity, both populations non responsive to drug treatment, were treated with IIBAI. All patients underwent a full urological examination including sonography followed by a conventional videourodynamic.

After securing the diagnosis, IIBAI (250 IE Dysport® in idiopathic 500 IE Dysport® in neurogenic detrusor overactivity) was applied in local anaesthesia after special regime (7 locations with 1 ml) not sparing the trigonum (3 locations with 1 ml).

For evaluating response with objective parameters, conventional videourodynamics were performed 6 weeks after IIBAI.

Beside of the urodynamic observations, morphological changes were evaluated, in particular reflux in filling and voiding.

Results

After IIBAI, no case was observed with induced reflux, despite of intratrigoanal injection.

In all cases there was an increase in maximum cystometric capacity (idiopathic detrusor overactivity: + 190ml, neurogenic detrusor overactivity: + 460 ml).

Patients with idiopathic detrusor overactivity still showed detrusor contractions after botulinumtoxin A injection.

Interestingly patients with neurogenic detrusor overactivity showed excessive post void residual, some of them even showed urinary retention without measurable detrusor contraction.

Interpretation of results

1. The intratrigoanal botulinumtoxin A injection (IIBAI) in neurogenic and idiopathic detrusor overactivity after special regime, not sparing the trigonum, does not induce vesicorenal reflux.
2. Botulinumtoxin A injection does not paralyze the detrusor muscle in idiopathic detrusor overactivity.
3. Botulinumtoxin A injection induces excessive postvoid residual urine, even urinary retention, in neurogenic detrusor overactivity.

Concluding message

Refluxes are not the consequence of intravesical intratrigoanal botulinumtoxin A injection.

There is no rational reason for not injecting into the trigonum after special regime.

Interestingly Botulinumtoxin A injection does not paralyze the detrusor completely in idiopathic detrusor overactivity, but it can induce post void residual.

References

1. Urology. 2003 Jan;61(1):37-49

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HUMAN SUBJECTS: This study did not need ethical approval because Due to the retrospective character neither a vote of the ethics committee nor informed consent of patients had to be obtained but followed the Declaration of Helsinki Informed consent was not obtained from the patients.