

## INTRAVESICAL BOTULINUM TOXIN TYPE A (BTX-A) FOR TREATMENT OF DRY AND WET REFRACTORY OVERACTIVE BLADDER (OAB)

### Hypothesis / aims of study

Overactive bladder syndrome (OAB) is a common condition with a significant negative impact on quality of life characterised by urgency with or without urge incontinence, frequency and nocturia. Intravesical botulinum toxin and Sacral nerve stimulation (SNM) is being increasingly used to treat severe overactive bladder refractory to standard management. An increasing body of literature is forming that supports this technique as effective, well tolerated, and safe. The objective was to compare the efficacy between dry OAB and wet OAB with intravesical BTX-A.

### Study design, materials and methods

From January 2014 to September 2014, 26 patients with OAB who failed to conservative treatment underwent intravesical injection of BTX-A. These patients were divided into two groups: Wet OAB (12 patients with urge urinary incontinence); Dry OAB (14 patients without urge urinary incontinence). Dose of 100 U BTX-A was diluted in 10ml saline, then injected in 20 sites of bladder wall except bladder trigone. The data of voiding diary, UDI-6 score at the preoperative and postoperative was collected.

### Results

Instead of quick efficacy of SNM, intravesical BTX-A usually begin to take effect in the 1-2 weeks, to achieve the best efficiency at the 12 week after injection, last 6-9 months. The total efficacy was 69.2% (18/26). In Wet OAB group, the number of incontinence dropped from  $7.9 \pm 5$  per week to  $0 \pm 2.6$  week ( $P < 0.05$ ), the frequency of urination declined from  $24 \pm 11$  per week to  $10 \pm 4$  per week ( $P < 0.05$ ). In Dry OAB group, the frequency of urination decreased from  $23 \pm 11$  per week to  $10 \pm 3$  week ( $P < 0.05$ ). No significant differences was found in the reductions of the frequency of urination and UDI score between Dry OAB group and Wet OAB group ( $P > 0.05$ ).

### Interpretation of results

Recently, intravesical BTX-A has been studied as a less invasive but more transient option with similar efficacy rates to SNM. Recent studies have tried to elucidate the optimal dosing regimen for BTX-A and patient variables predicting success for both therapies in order to improve outcomes while reducing adverse events[1].

### Concluding message

BTX-A is associated with significant improvement in OAB symptoms, while the incidence of postoperative urinary retention and urinary infection was acceptable. compared to placebo. The efficacy between Dry OAB group and Wet OAB group was similar, despite the subjective symptom relieved more apparently in the patients with Wet OAB.

### References

1. Kantartzis K1, Shepherd J. Sacral neuromodulation and intravesical botulinum toxin for refractory overactive bladder. Curr Opin Obstet Gynecol. 2012 Oct;24(5):331-6.

### Disclosures

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