

## DECREASING THE DOSE OF ONABOTULINUM TOXIN A (BOT-A) FROM 300 UNITS TO 200 UNITS IN MULTIPLE SCLEROSIS (MS) PATIENTS – DOES IT MATTER?

### Hypothesis / aims of study

Traditionally, 300 units (U) of Bot-A was used to control neurogenic detrusor overactivity (NDO) in MS patients. However, the pivotal studies have recommended a dose of 200U for managing NDO in these patients. The aim of our study was to evaluate if lowering the dose to 200U decreases the duration of effectiveness of Bot-A in MS patients who previously have received a higher dose.

### Study design, materials and methods

This was a prospective analysis of all patients who previously had at least 2 injections of 300U Bot-A at our institution. During the period of study all patients received 200U of Bot-A in 30mls injected at 30 sites sparing trigone. They were evaluated pre and post injections with UDI-6 & IIQ7. All side effects were documented. The duration of effect was recorded.

### Results

Forty one patients (Females n=32) with MS were identified. Mean age was 55.36 yrs. (Range 32-84 yrs.). At 300U the mean duration of effect was 16.19 months with a range of 9 to 48 months. On decreasing the dose to 200U the mean duration of effect was 11.55 months with a range of 6 to 26 months. The duration of effect with 200U decreased in 13/41(31.7%) patients as compared to 300U in the same individual whilst did not significantly change in others. On reverting back to 300U the mean response in 7 of these 13 patients had returned back to initial response with 300U. The remaining 6 are awaiting repeat injections with 300U. No change in bladder management was noted during the study.

### Interpretation of results

It appears that lowering the dose of Botox has a good initial response but in almost a third of patients the duration does not last as long as the original increased dose. The cause of this phenomenon remains unclear and further studies are required to evaluate if this is due to sensitization of the receptors to a higher dose.

### Concluding message

Further studies are required to understand whether the need to increase the dose is due to sensitization of the receptors to a higher dose.

### Disclosures

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