

## THE USE OF INTRA-DETRUSOR BOTULINUM TOXIN-A IN THE ELDERLY

### Hypothesis / aims of study

The intra-detrusor injection of Botulinum toxin-A (BTX-A) is becoming an accepted treatment option for the management of refractory detrusor overactivity (DO). Little data exists regarding the safety and efficacy of BTX-A in elderly patients. We report our experience using intra-detrusor BTX-A in elderly patients with DO refractory to medical management.

### Study design, materials and methods

A retrospective chart review was performed on all patients  $\geq 65$  years of age who underwent cystoscopic intra-detrusor injections of BTX-A for refractory idiopathic DO. Each patient received a total of 100-200 units of BTX-A. All patients either failed or did not tolerate medical treatment for urodynamically proven DO. Prior to BTX-A injection, no patient demonstrated bladder outlet obstruction or urinary retention. Charts were reviewed with regard to pre-operative urodynamic studies, pad usage, post-void residual (PVR) urine volume by bladder scan, complications and post procedural subjective improvement.

### Results

Ten elderly patients (eight female and two male) with a mean age of 75.3 years (range 65-85) were available for analysis. Five of 10 (50%) patients reported a greater than 50% subjective improvement in overactive bladder symptoms with a mean duration of 4.1 months (range 2-11). Daily pad usage decreased from 6.3 to 3.6 pads/day following BTX-A injection. Nine of ten patients (90%) developed incomplete bladder emptying (IBE) with a PVR  $\geq 150$ mL (mean 344, range 185-590). IBE was managed with double voiding in 5, intermittent catheterization in 3 and placement of an indwelling catheter in 1 patient. The IBE effect of BTX-A on these patients had an average duration of 2.9 months (range 0.25-7 months). No other complications were noted.

### Interpretation of results

Intra-detrusor injections of BTX-A in elderly patients with refractory DO appears to be safe and significantly improve symptoms. However the efficacy in our cohort may be slightly less than reports from other published BTX-A studies in patients of all ages (1). Furthermore, following BTX-A injection the majority of our patients were found to have IBE. This may suggest the need to decrease the dose of toxin delivered to elderly patients, although dose reduction could further compromise efficacy.

### Concluding message

The use of BTX-A in an elderly population with refractory DO is safe and effective. At standard doses injected, the majority of patients experienced incomplete bladder emptying, although this was easily managed.

### References

1) Schmid DM et al. Experience with 100 cases treated with botulinum-A toxin injections in the detrusor muscle for idiopathic overactive bladder syndrome refractory to anticholinergics. J Urol 2006;176:177-85

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**HUMAN SUBJECTS:** This study was approved by the Medical College of Wisconsin Institutional Review Board and followed the Declaration of Helsinki Informed consent was not obtained from the patients.