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INTRAVESICAL BOTOX INJECTION FOR NEUROGENIC VOIDING DYSFUNCTION: AN ENDEAVOR TO SERVE THE FORGOTTEN

Hypothesis / aims of study

The aim of this study is to investigate the effect of intravesical botulinum neurotoxin type A (BoNT/A) on patients with detrusor overactivity (DO).

Study design, materials and methods

We retrospectively reviewed all patients who underwent intravesical BoNT/A injection for DO from Feb 2010 to Feb 2017. Patients' demographics, surgical technique, post-op complications, data from clinical evaluation and urodynamic studies were recorded.

Results

A total of 16 patients (Male=7, Female=9) with a mean age of 47.6 +/- 19 yo were included in the study. 13 (81%) had neurogenic DO and 3(19%) had idiopathic DO. All 16 patients had urge urinary incontinence, 14 (87.5%) patients were on either oral or intravesical anticholinergic. All of them received submucosal injection of 100-300units of BoNT/A at 20 sites, in either trigone sparing or non-sparing fashion. Mean follow up time was 45.4 +/-26months. At follow-up within 4 months post-injection, 13 (93.8%) patients had clinical improvement on leakage, urgency or frequency. 5 (31%) patients were able to achieve complete continence, 3 (18.9%) were able to wean off anticholinergic after BoNT/A injection. The observed improvements in urodynamic parameters included bladder volume at first leak and maximum cystometric capacity. The therapeutic duration of BoNT/A were variable, ranging from 1 month to 1 year. During the study period, 9 (56%) patients had repeated BoNT/A injection, 2 (12.5%) patients had augmentation cystoplasty with Mitrofanoff procedure performed. On comparison between the continent and incontinent patients after BoNT/A injection, age was a significant predictor for achieving complete continence after BoNT/A injection (38 vs 58 years of age, p = 0.048). 2 (12.5%) patients developed urinary tract infection with hematuria in 30 days post-operation.

Interpretation of results

Quality of life of patients with neurogenic bladder was compromised as a result of debilitating urge urinary incontinence and anticholinergic treatment related side effects. Intravesical BoNT/A injection is an effective treatment option with proven efficacy, the safety profile warrants a higher utilization rate.

Concluding message

BoNT/A is a safe and effective treatment for patients with neurogenic or idiopathic detrusor overactivity.

Disclosures

Funding: nil **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective review of established treatment modality
Helsinki: Yes **Informed Consent:** Yes