

BOTULINUM TOXIN INJECTION TO BLADDER; AN AUDIT TO ASSESS ITS EFFICACY AND VALUE IN THE TREATMENT OF DETRUSOR OVERACTIVITY INCONTINENCE.

Hypothesis / aims of study

The use of botulinum toxin injections to the bladder in the treatment of detrusor overactivity incontinence has shown to be very effective. We conducted an audit at our hospital to assess the efficacy and the outcomes reported from short-term follow-up. The purpose of this audit is to improve the methodology employed in our centre and ensure that the most appropriate therapeutic principles are being established.

Study design, materials and methods

A sample of 28 patients presented to our urogynaecology department with either detrusor overactivity (n=17) or mixed (n=11) urinary incontinence. A third of the participants were previously diagnosed with multiple sclerosis. Following urodynamic assessment they were diagnosed with idiopathic, neurogenic or mixed incontinence. All of the patients underwent treatment with botulinum toxin injection to the bladder, under general anaesthetic. The patients were followed up retrospectively to evaluate any potential benefit, with the use of the International Consultation on Incontinence Questionnaire (ICIQ), before and after the treatment. Additional data regarding age, medical history, previous anticholinergic treatment, physiotherapy and urogynaecological or other procedures were collated in a separate data collection sheet.

Results

The analysis of the data shows that all of the participants reported a degree of improvement of their symptoms at the time of follow up at 6-12 weeks. Using the ICIQ 1-10 score for the interference of urinary incontinence symptoms to the patients' quality of life, the average improvement in score was more than 7 points. 64% of the patients reported a complete resolution of their condition. Minor adverse events such as urinary tract infections and temporary urine retention were reported, which did not affect the final outcome of treatment.

Interpretation of results

The quality of life is improved following treatment of detrusor overactivity incontinence with botulinum toxin bladder injections. There is no marked difference in the outcome from the use of different regimes of toxin doses employed in this audit. Additionally, the efficacy of this treatment was not compromised by the level of seniority of the clinician performing the procedure. All of the participants with multiple sclerosis in their history showed significant improvement. There was no obvious correlation of the outcome with previous urodynamic assessment results or other urogynaecological interventions, including surgical or conservative management with medication/physiotherapy.

Concluding message

The results from our audit agree with the existing trend reported in the literature regarding the application of botulinum toxin injections for detrusor overactivity incontinence. The noted patient perception of symptom improvement and the low risk of complications confirms the viability for its use especially in the elderly population. We aim to continue to follow-up patients prospectively undergoing this procedure and confirm its feasibility as a standard treatment for a selective group of patients.

References

1. Avery K, Donovan J, Peters T, Shaw C, Gotoh M, Abrams P. ICIQ: A Brief and Robust Measure for Evaluating the Symptoms and Impact of Urinary Incontinence. *Neurourology and Urodynamics*. 2004;23(4):322-30

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<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	None required.
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes