

## USE OF BOTULINUM TOXIN FOR OVERACTIVE BLADDER - IS IT WORTH THE COST?

### Hypothesis / aims of study :

There are estimated five million women over the age of 20 years of age suffer from overactive bladder syndrome in the United Kingdom. It is a complex condition with debilitating effect on the quality of life. If conservative treatment and trial of anticholinergic drugs fail to improve the symptoms, botulinum toxin infiltration into bladder can be recommended as a second line of treatment. It acts by blocking the presynaptic release of acetylcholine and normalises the expression of sensory neuronal receptors in the bladder.

There are emerging evidences support the use of botulinum toxin to give short time improvement of overactive bladder symptoms. One of the main advantage of botulinum toxin over sacral neural modulation is that it is less invasive, more cost effective and does not require the extent of expertise needed for sacral neural modulation.

Our study is a clinical audit to assess the efficacy of intravesicle infiltration of Botulinum toxin in improving urinary urgency, urinary frequency, urinary incontinence and quality of life.

### Study design, materials and methods

Retrospective audit of the cases with idiopathic overactive bladder syndrome treated with Botulinum toxin by analysis of case notes, electronic care record and health care questionnaire.

The following aspects of care were evaluated: Compliance with NICE ( National Institute of clinical excellence ) guidelines for management of women with overactive bladder- referral to physiotherapy, urodynamic study, use of anticholinergic drugs and informed consent for botulinum toxin treatment.

Efficacy of treatment was assessed by the subjective improvement of urinary urgency, frequency, and Urge urinary incontinence and ICI-Q short questionnaire.

114 procedures were carried out from 2008 – 2013. 51 patients with idiopathic overactive bladder had treatment with intravesicle infiltration of Botulinum toxin, 45 patients included in the audit. The age group range from 39 to 82 years, mean age of the patients was 62years .The number of injections individual patients varied between 2 to 8 times.

### Results

All patients had bladder drill and trial of at least two anticholinergic drugs prior to the treatment.

All patients had documented discussion on the unlicensed treatment, short term effectiveness, voiding difficulty, urinary tract infection and possible requirement of intermittent self-catheterisation (ISC) prior to the procedure, all patients referred to and learnt ISC.

28 cases were done as day procedure and 17 cases as in patients because of co morbidities. There were no intraoperative complications.

Immediate postoperative complications were: 1 patient-frank haematuria (patient was on warfarin), 11 patients -voiding difficulty, 7 patients were treated for Urinary infection out of which 2 were only confirmed UTI.

Severity of urinary incontinence – before treatment – 82.2 % had moderate to large leaking episodes. After treatment 40% experienced no leak, 42 % small leak, 13.3 % had moderate leak.

Frequency of urinary incontinence – Before treatment – 68.9% % had leaking several times a day to once a day, 20 % leaked 2-3 times a week and 11 % leaked once a week.

After treatment 55 % experienced no leak or leak once a week, 26.6 % leak-2-3 times a week, 8.8 % leak once a day.

Quality of life affected by the overactive bladder symptoms were assessed by ICI Q health questionnaire with reference to scale of 1- 10.

97.7 % of patients had quality of life affected to the scale of 8-10.

After treatment the only 15.6% of patients remained with quality of life affected by the OAB symptoms to the scale of 8-10, implying 84.4% of patients had good improvement with the botulinum toxin treatment.

### Interpretation of results

The results were plotted in the bar chart and percentage worked out.

### Concluding message

100% compliance with NICE recommendation with regard to selection of the patients.

85%reported overall improvement of overactive bladder symptoms.

81.2 %improvement in frequency of urinary incontinence.

82% improvement in urinary urgency.84.4 % improvement in the quality of life.

Botulinum toxin is an effective treatment to reduce the symptoms of overactive bladder and the significant improvement in the quality of life makes it a treatment that is here to stay for cases of overactive bladder.

### References

1. Scientific impact paper RCOG - Botulinum toxin treatment for overactive bladder - 2014

### Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Health questionnaire were completed by the patients as a part of the follow up of the treatment with out any personal details entered on it. **Helsinki:** Yes **Informed Consent:** Yes