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FAILURE OF BOTULINUM TOXIN TYPE B IN THE TREATMENT OF THE REFRACTORY OVERACTIVE BLADDER

Hypothesis / aims of study
In recent years, the use of Botulinum toxin A for the treatment of both idiopathic and neuropathic detrusor overactivity (IDO and NDO respectively) has grown rapidly. The aim of this study is determine the efficacy of Botulinum toxin B (NeuroBloc, Elan Pharma International Ltd, Shannon, Ireland) in patients with either IDO or NDO refractory to other treatments.

Study design, materials and methods
Patients with urodynamically proven IDO or NDO and had failed with other conservative treatments were recruited prospectively. 5000u of NeuroBloc was injected in 20 sites around the bladder avoiding the trigone. Data was collected prospectively with patients completing a 3-day frequency/ volume chart to record 24-hour frequency and incontinent episodes. The King's Health questionnaire (KHQ) was used to assess quality of life. All these were scheduled for repeating at 10 weeks, 6 months and 9 months post-operatively or sooner if the patient felt the effects had worn off. Successful end points were defined as a 20% decrease in 24-hour frequency or incontinent episodes, a 20% improvement in KHQ score or a 20% improvement in volume at first detrusor contraction or maximum cystometric capacity on filling cystometry.

Results
A total of 21 patients, 15 women and 6 men, have been injected and complete follow-up data is currently available for 18 patients. Of these, eleven patients felt there had been an initial improvement but had worn off by the first assessment. This occurred at a median of 61 (range 7-70) days. In five patients the effects lasted longer than 10 weeks, wearing off at 106, 135, 136, 146 and 151 days. Two patients felt there had been no improvement. As a group, all outcome measures except KHQ had improved by 20% or more at the 10-week assessment. When the group was divided into those who felt the effects had worn off (failure group) and those who still had benefit (success groups) at 10 weeks, there was no change from baseline in the failure group for any measure. In the success group, all outcome measure except KHQ score had improved at 10 weeks and though they remained improved at failure assessment, the trend was a return towards baseline. No patient had benefit lasting to the 6-month assessment.

Interpretation of results
These results show that NeuroBloc is successful in treating patients with urodynamically proven detrusor overactivity. However, it has a limited duration of action with its effects wearing off by 10 weeks in most patients.

Concluding message
The short duration of action of NeuroBloc suggests it is unlikely to gain widespread use in the treatment of detrusor overactivity.