

## ASSESSMENT OF PAIN DURING ADMINISTRATION OF BOTULINUM TOXIN BLADDER INJECTIONS WITH AND WITHOUT THE USE OF INTRAVESICAL LIDOCAINE INSTILLATION

### Hypothesis / aims of study

Tolerability of intradetrusor botulinum toxin (BTX) injections can be variable and pain may be a contributory factor for discontinuation of treatment in patients with overactive bladder. We aim to assess the analgesic benefit of intravesical lidocaine instillation in BTX injections by comparing the pain experienced by patients during and after the procedure with and without intravesical anaesthesia.

### Study design, materials and methods

A retrospective standardised questionnaire was used in a telephone survey conducted on patients with overactive bladder symptoms treated with BTX injections from May 2013 to March 2016. Patients used the numerical rating scale (NRS) to score the pain experienced. Antiseptic lubricant (11mL Instillagel®) containing 2% lidocaine was used in all cases. The decision to use lidocaine instillation was based on the urologist's and patient's preference.

### Results

A total of 78 consecutive cases (33 patients) were identified and divided into two groups; group A had lidocaine instillation (n=9) and group B did not have lidocaine instillation (n=69). 19 males (57.6%) and 14 females (42.4%) were included. There was no significant difference in the NRS pain score during the procedure between group A and group B (3.78 and 2.93 respectively;  $p = 0.38$ ). Furthermore, we found no difference in pain score post procedure following discharge between the two groups (0 and 0.88;  $p = 0.22$ ). The mean NRS pain score of BTX injection for all 78 cases was 3.03 (95% CI 2.41-3.64).

	<b>Group A</b>	<b>Group B</b>	<b>P value</b>
<b>Age, mean</b>	<b>42.78</b> (95% CI 30.16- 55.40)	<b>50.38</b> (95% CI 46.39- 54.36)	0.20
<b>Gender</b>			0.14
Female (n,%)	1 <b>11%</b>	28 <b>42%</b>	
Male (n,%)	8 <b>89%</b>	41 <b>58%</b>	
<b>Number of BTX treatment, mean</b>	<b>6.67</b> (95% CI 4.24- 9.10)	<b>4.77</b> (95% CI 4.01- 5.53)	0.09

	NRS pain score during procedure			NRS pain score following procedure		
	0-3	4-6	7-10	0-3	4-6	7-10
Group A (n, %)	4 <b>44%</b>	5 <b>56%</b>	0 <b>0%</b>	9 <b>100%</b>	0 <b>0%</b>	0 <b>0%</b>
Group B (n,%)	44 <b>64%</b>	16 <b>23%</b>	9 <b>13%</b>	61 <b>88%</b>	8 <b>12%</b>	0 <b>0%</b>

### Interpretation of results

Our study did not show any significant anaesthetic benefit with the use of intravesical lidocaine instillation prior to BTX injections, both during the procedure and at the early recovery period. The mean NRS score of the procedural pain of all cases demonstrates that patients experienced minimal pain regardless of lidocaine instillation. The retrospective nature of our study and the small sample size of lidocaine use need to be taken into consideration.

### Concluding message

Overall, intradetrusor BTX injections are well tolerated. Our study suggests that the effect of intravesical lidocaine instillation is unclear. The lubrication and anaesthetic effect of a lidocaine-containing lubricant may be sufficient in most cases. Larger randomised controlled studies are required to establish a clinical significance.

### Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** It is a retrospective questionnaire based patient survey. **Helsinki:** Yes **Informed Consent:** Yes