Long Term Compliance and Results of Intravesical Botulinum Toxin A Injections in Male Patients

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Hypothesis / aims of study
Intravesical injections with botulinum toxin A (BoNT-A) is an established treatment for patients with overactive bladder (OAB) symptoms. However, most studies have evaluated the efficacy of this treatment in women and report short term results. In this study, we evaluated the long-term compliance of BoNT-A in a heterogeneous group of male patients.

Study design, materials and methods
This is a retrospective, single-centre study. We evaluated all male patients who have been treated with BoNT-A from 2004 until 2010 in a large teaching hospital. Patients received 100-300U of onabotulinum toxin-A in 20 intravesical injections. Some patients received dose adjustment with repeated injections.

Results
In total, 88 male patients were included. The mean follow-up was almost 6 years (69 months). Of all patients, 22 (25%) continued BoNT-A treatment at last follow-up (success). Of the patients who discontinued treatment, 35 had insufficient effect and 27 had tolerability issues (e.g. urinary retention, self-catheterisation, voiding LUTS). Four patients abandoned treatment due to other reasons that were not related to BoNT-A. Of all patients, 24% had to use intermittent catheterisation (de novo) or indwelling catheters at some point during the follow-up.

Interpretation of results
In this real-life, heterogeneous cohort of men, the long-term compliance with BoNT-A was 25%. Patients with neurogenic OAB symptoms appear to have the best results in our study with 36% of patients who were still on active treatment during last follow-up.

Concluding message
Intravesical BoNT-A can be an effective treatment for men with overactive bladder symptoms. In our study, only 25% of patients continued treatment during long-term follow-up. Larger, prospective trials are needed to confirm these results.

<table>
<thead>
<tr>
<th>Indication for BoNT-A treatment</th>
<th>Total nr of patients</th>
<th>Success rate</th>
<th>Stopped due to Insufficient effect</th>
<th>Stopped due to side effects</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idiopathic OAB</td>
<td>24</td>
<td>5 (21%)</td>
<td>8</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Neurogenic DO</td>
<td>25</td>
<td>9 (36%)</td>
<td>7</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Post-TURP</td>
<td>18</td>
<td>2 (11%)</td>
<td>10</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Post-PCa treatment</td>
<td>21</td>
<td>6 (29%)</td>
<td>10</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>88</td>
<td>22 (25%)</td>
<td>35</td>
<td>27</td>
<td>4</td>
</tr>
</tbody>
</table>

Number of patients stopping after different sessions of BoNT-A treatment

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