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PARAMETERS PREDICTING THE RESPONSE TO INTRADETRUSOR BOTULINUM A TOXIN INJECTIONS IN PATIENTS WITH IDIOPATHIC DETRUSOR OVERACTIVITY.

Hypothesis / aims of study
Botulinum Toxin A is effective in the management of refractory OAB. Our aim was to determine which pre-injection urodynamic, demographic and clinical parameters might predict the response to intradetrusor Botulinum A injections using DYSPORT® (500iu)

Study design, materials and methods
33 patients underwent injection and were assessed objectively and subjectively pre-treatment, at 6 weeks, 3, 6 and 9 months. Patients who responded to treatment, defined as no urge incontinence, were compared with those who did not. We also attempted to define, on uroflow data, risk factors for post-operative voiding dysfunction.

Ethical approval was obtained for this study and all patients gave informed consent.

Results
Table 1 compares mean pre-treatment urodynamic values for wet and dry subjects at follow-up. Table 2 compares pre-treatment uroflow data for patients that developed post-operative voiding dysfunction with those who did not.

Neither age, or severity of the incontinence as measured pre-treatment by the visual analogue score (0-10), the Kings Health Questionnaire, and Bladder diary influenced the continence outcome.

Table 1 - Urodynamic variables before and after treatment

<table>
<thead>
<tr>
<th>PRE-TREATMENT PARAMETER</th>
<th>6 weeks Dry</th>
<th>6 weeks Wet</th>
<th>3 months Dry</th>
<th>3 months Wet</th>
<th>6 months Dry</th>
<th>6 months Wet</th>
<th>9 months Dry</th>
<th>9 months Wet</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Desire (FD) (ml)</td>
<td>194</td>
<td>177</td>
<td>215</td>
<td>174</td>
<td>268*</td>
<td>154*</td>
<td>245</td>
<td>167</td>
</tr>
<tr>
<td>Maximum cystometric capacity (MCC) (ml)</td>
<td>304</td>
<td>282</td>
<td>386</td>
<td>284</td>
<td>405*</td>
<td>258*</td>
<td>331</td>
<td>253</td>
</tr>
<tr>
<td>Volume at 1st Detrusor Contraction cmH20</td>
<td>233</td>
<td>170</td>
<td>292*</td>
<td>144*</td>
<td>246</td>
<td>164</td>
<td>303</td>
<td>126</td>
</tr>
</tbody>
</table>

Table 2 - Uroflow data for those with and without postoperative voiding dysfunction

<table>
<thead>
<tr>
<th>Requires CISC or Self-catherisation</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-op post –void residual (ml)</td>
<td>17</td>
<td>171</td>
<td>19</td>
<td>147</td>
<td>14</td>
<td>224</td>
<td>19</td>
<td>239</td>
</tr>
<tr>
<td>Pre-op maximum flow rate (ml/s)</td>
<td>10</td>
<td>18</td>
<td>18</td>
<td>11</td>
<td>19</td>
<td>9</td>
<td>18</td>
<td>9</td>
</tr>
</tbody>
</table>

Interpretation of results
Patients with refractory idiopathic OAB who have higher values for FD, MCC and volume at first detrusor contraction are more likely to be continent following intradetrusor Botulinum Toxin A (Dysport) injection. Pre-treatment uroflow data did not influence the risk of post-operative voiding dysfunction.

Concluding message
Botulinum Toxin A is an innovative and effective treatment for refractory detrusor overactivity. Pre-treatment urodynamics may predict the risk of postoperative voiding dysfunction.

This study did not receive any industrial funding.

References
2. Am J Obstet Gynecol (2005)192(5);1735-4

FUNDING: None funding
CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.
HUMAN SUBJECTS: This study was approved by the Surrey and London Borders and followed the Declaration of Helsinki. Informed consent was obtained from the patients.