

RISK FACTORS FOR UTI FOLLOWING BLADDER ONABOTULINUMTOXINA INJECTIONS FOR REFRACTORY OVERACTIVE BLADDER

Hypothesis / aims of study

Although efficacious in treating refractory overactive bladder (OAB), OnabotulinumtoxinA injections into the bladder are associated with higher than expected rates of UTI. We set out to identify risk factors that lead to the development of UTIs after bladder OnabotulinumtoxinA injections in this patient group.

Study design, materials and methods

This was a single center retrospective study. Our prospective database on OnabotulinumtoxinA injections was analysed to identify patients who had developed UTI following treatment. The study population consisted of 159 patients with refractory OAB treated with their first OnabotulinumtoxinA (100-200 U) in our designated botulinum toxin clinic. Patient information was collected using both electronic and paper notes. Descriptive statistics described the population at baseline. Literature review established current risk factors for UTI. Univariate and multivariate logistic regression assessed the association between risk factors and UTI adjusting for potential confounders.

Results

25% of the population developed a UTI with no significant difference between males and females. 36.5% of the population had to perform clean intermittent self catheterization (CISC) with males being more likely ($p=0.04$). Of the multiple parameters screened in the analysis higher OnabotulinumtoxinA doses (OR: 2.21; 95% CI: 0.94-5.19) and CISC use (OR: 4.17; 95%CI: 1.95-8.91) had greater odds of developing a UTI. UTI risk with higher doses was independent of CISC use. No other risk factors in our study were significant.

Interpretation of results

UTI rates following cystoscopy and bladder OnabotulinumtoxinA injections are higher than expected. Higher doses are associated with increased risk of UTI and this is likely to be associated with the increased number of injections into the bladder with increasing dose (10U / mL / injection). CISC is another risk factor which could be potentially explained by the increased risk of introducing bacteria through increased instrumentation.

Concluding message

Increasing number of bladder injections and CISC increase the likelihood of developing a UTI in our series. These factors can help in counselling patients prior to treatment. Further research is required to understand the mechanism of the high UTI rate with bladder botulinum toxin injections.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective analysis looking at risk factors in patients who had already been treated as standard of care **Helsinki:** Yes **Informed Consent:** No