

WHERE DOES BOTOX GO AFTER INTRAVESICAL INJECTION? CONTRAST ENHANCED MRI LOCALISATION OF BOTOX IN DETRUSOR MUSCLE AFTER INTRAVESICAL INJECTION, AND CORRELATION WITH CLINICAL OUTCOME.

Hypothesis / aims of study

Controversy still exists as to dosage, sites of injection for intravesical Botox injection. Moreover, there is lack of studies to show localisation of Botox within bladder wall and/or absorption rates post injection.

Our study examines the distribution of botulinum toxin after intravesical injection. An MRI scan is performed one to two hours post injection of Botox plus Gadolinium contrast.

Study design, materials and methods

Prospective pilot study commenced and to-date 12 patients are enrolled, with ongoing accrual. Patients, both sexes, with neuropathic or idiopathic overactive bladder were included. They could be first time receiving botox or having a repeat procedure.

All patients assessed at baseline and 6 weeks after injection with history and the overactive bladder symptom score (OABSS).

100 iu Botox (onaboyulinumtoxinA) reconstituted with 19 mls 0.9% saline and one ml of Gadolinium contrast used. Intradetrusor injections were performed with a rigid 21F ACMI cystoscope, a flexible injector sheath, and disposable inner sheath/needle with a 27G tip (Olympus, reference numbers NM-101C-0427, MAJ-656; Olympus KeyMed, Southend, UK).

Patients received a total of 20 injections with 2 mls injected into the trigone and the rest into the bladder wall. The depth of injection was approximately 2 mm (half the length of the 4-mm injection needle), without raising a bleb, as described by Kuo et al. Patients have a catheter in situ and MRI pelvis performed after filling bladder with 100 to 200 mls of saline.

Results & Interpretation of results

To date contrast guided MRI can localise site of Botox after injection. However, there is variability with some cases showing absorption of Botox & contrast from bladder wall into extravescical space and others showing extension into bladder lumen.

Concluding message

To-date study has shown that variable amount of botulinum toxin and contrast have been distributed between bladder wall, perivesical space and bladder lumen after intravesical Botox injection.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** we have applied to ethics committee and are awaiting their reply. **Helsinki:** Yes **Informed Consent:** Yes