THE USE OF BOTULINUM TOXIN IN THE TREATMENT OF CONSTIPATION IN CHILDREN

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Aim: To see the effectiveness of intersphincteric injection of botulinum toxin (Botox) to treat children with intractable constipation.

Method: A retrospective review of children treated with injection of Botox to the internal anal sphincter (IAS) for intractable constipation between November 2012 and December 2015, at a single institute by a single surgeon.

Results: 28 children were treated with injection of up to 450 IU of Botox to the IAS under GA. Median age was 6.5 years (2-16). 16 were girls. 20 (71%) children showed an improvement after Botox injections with decreased use of laxatives, more frequent stools, less pain and bloating. The effects lasted between 4 and 12 months. 14 children had normal rectal biopsies and high IAS pressures (>50mmHg) on anorectal manometry (ARM). 3 children symptomatic with anal fissure did not have rectal biopsies, two had normal ARM and one was not investigated. 3 children had Hirschsprung’s disease (post Duhamel pullthrough) and all showed improvement in symptoms and decreased laxative use. Two children had initial loose stool and soiling post treatment which improved after one month.

8 (29%) children had no improvement. Two of these children had eosinophilic colitis requiring ACE formation, one child had pelvic floor dysfunction with megarectum requiring a colostomy. 3 children required long term laxatives with a background of developmental delay, food allergies and high truncal obesity with very high IAS pressures. One child developed post-pneumonia opiate induced megarectum, with unsuccessful Botox treatment and is being considered for ACE procedure.

9 children had two or more treatments of Botox with good symptomatic control.

Conclusion: The use of Botox injection in the internal anal sphincter is a safe and effective treatment for intractable constipation in children including those with Hirschsprung’s disease. Botox for children with allergic phenomena leading to constipation may be less useful.