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Can Refractory Urinary Tract Infections Secondary to Bladder Instability Be Treated with Botulinum Toxin Injections?

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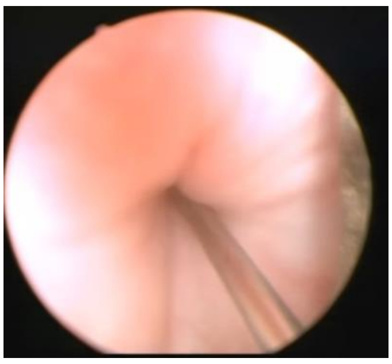
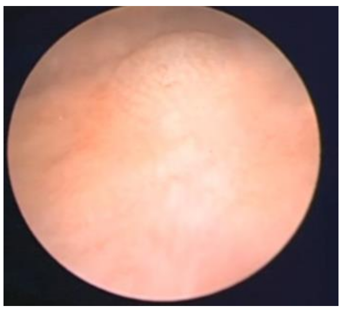
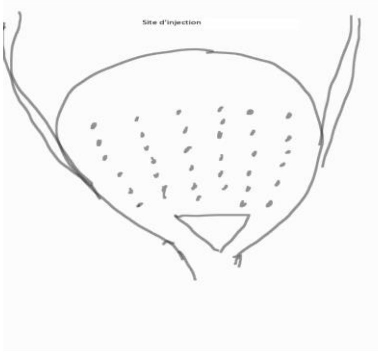
Objectives: To evaluate the impact of botulinum toxin injections on the control of urinary tract infections (UTIs) secondary to bladder instability in school-aged girls.

Materials and Methods: A retrospective study conducted over 12 months, from September 2015 to October 2016.Included in the study were girls presenting with bladder instability without any neurological impairment. Girls with a history of urinary tract malformations were excluded.Twenty-four girls presenting with recurrent UTIs secondary to bladder instability, suspected based on voiding disorders and confirmed by urodynamic testing, were included.
All patients had previously undergone anticholinergic treatment and voiding retraining. All patients received botulinum toxin type A injections at doses ranging from 14 to 20 units.
Outcome assessment was based on infectious symptoms and the improvement of voiding disorders.







Results: The study population was aged between 6 and 14 years. All patients had UTIs associated with voiding disorders, including:daytime urinary incontinence: 5 cases, urgency with nocturia: 8 cases ,frequent urination: 6 cases,interrupted urination with fractionated flow: 5 cases.The follow-up period lasted 10 months. During this period, resolution of infectious symptoms was observed in 20 patients. Cleanliness (continence) was achieved in 48%, improvement in urinary frequency in 32%, and resolution of urgency in 27%.The injections were performed without any complications, and the stability of results was maintained throughout the follow-up period

Conclusion: Botulinum toxin type A is an effective and appropriate alternative for controlling refractory UTIs secondary to bladder instability in school-aged girls. It simultaneously improves the associated voiding disorders.

The introduction of endoscopic injection of botulinum toxin A into the detrusor represents an intermediate alternative between oral treatment and surgery.
It should be considered as an option in cases of failure of oral therapy.

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