

NEUROUROLOGY & FEMALE UROLOGY

The evolution of obstruction induced overactive bladder symptoms following urethrolisis for female bladder outlet obstruction

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Purpose: Bladder outlet obstruction following stress incontinence surgery may present as a spectrum of lower urinary tract symptoms. We evaluated the prevalence and impact of persistent overactive bladder symptoms following urethrolisis for iatrogenic bladder outlet obstruction.

Materials and Methods: In a retrospective review we identified 40 patients who underwent urethrolisis. All patients underwent a standardized urological evaluation. Patients identified with genitourinary erosion, neurogenic bladder dysfunction and preexisting overactive bladder were excluded. Urethrolisis outcomes were determined by subjective bladder symptoms and objective parameters. Validated questionnaires were completed to assess symptom bother, patient satisfaction and quality of life. Statistical analyses were performed using Stata, version 9.0.

Results: A total of 40 patients were included in the study with a mean \pm SD followup of 13 ± 11 months (range 3 to 38). Of the patients 34 patients presented with obstructive symptoms, while 36 had overactive bladder symptoms. Obstructive symptoms resolved in 28 of the 34 patients (82%), while overactive bladder symptoms resolved completely in only 12 (35%) and they were significantly improved in 4 (12%). Overall 20 patients (56%) were on antimuscarinics for refractory overactive bladder and 8 ultimately required sacral neuromodulation. Pre-urethrolisis detrusor overactivity was more likely in patients with persistent overactive bladder symptoms than in those in whom overactive bladder symptoms resolved (70% vs. 38%). Patients with persistent overactive bladder had significantly greater symptom severity/bother, and decreased perception of improvement and quality of life following urethrolisis.

Conclusions: Following urethrolisis overactive bladder symptoms may remain refractory in 50% or greater of patients, which has a negative impact on quality of life and the impression of improvement after surgery. Detrusor overactivity demonstrated preoperatively may be useful for predicting who may have persistent overactive bladder symptoms despite an effective urethrolisis procedure.

Editorial Comment

This report highlights the difficulties of achieving normal voiding function after urethrolisis for iatrogenic female bladder outlet obstruction. The authors were able to review 40 patients who underwent a variety of urethrolisis techniques and categorized their operative success on whether the symptoms were primarily obstructive or overactive bladder in nature. The authors noted that it was much easier to resolve obstructive voiding symptoms than those of overactive bladder. The surgical success rate for symptoms of bladder overactivity was under 50 percent; in addition, 20 percent of their overall patients (8/40) eventually needed metachronous sacral nerve stimulation.

A very well written article that clearly highlights the difficulties in the management of this patient population. Simply addressing the obstructing operation unfortunately will not return the patient to normal voiding function. It is notable that none of the patients in the group appear to have had an obstructing transobturator sling (timing of the original surgery?). The authors highlight that identification preoperatively of detrusor overactivity may be a negative predictor of patient perceived success after their urethrolisis.

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Botulinum A toxin intravesical injection in patients with painful bladder syndrome: 1-year followup

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Purpose: We evaluated the 1-year efficacy and tolerability of botulinum A toxin intravesically injected in patients with painful bladder symptoms associated with increased urinary frequency, refractory to conventional treatments.

Materials and Methods: Three men and 12 women were prospectively included in the study. Under short general anesthesia the patients were given injections of 200 U commercially available botulinum A toxin diluted in 20 ml 0.9% NaCl. Injections were performed submucosally in the bladder trigone and lateral walls under cystoscopic guidance. A voiding chart and the visual analog scale for pain were used, and urodynamics were performed before treatment, and 1, 3, 5 and 12 months later.

Results: Overall 13 patients (86.6%) reported subjective improvement at the 1 and 3-month followups. The mean visual analog scale score, and daytime and nighttime urinary frequency were significantly decreased ($p < 0.05$, < 0.01 and < 0.05 , respectively). At the 5-month followup the beneficial effects persisted in 26.6% of cases but increased daytime and nighttime urinary frequency, and an increased visual analog scale score were observed compared to baseline. At 12 months after treatment pain recurred in all patients. Nine patients complained of dysuria 1 month after treatment. Dysuria persisted in 4 cases at the 3-month follow-up and in 2 at the 5-month follow-up. **Conclusions:** Intravesically injected botulinum toxin A is effective for short-term management of refractory painful bladder syndrome. The beneficial effects decreased progressively within a few months after treatment. Thus, repeat injections of the neurotoxin are required for efficacious treatment in patients with the disease.

Editorial Comment

The authors review their experience with Botulinum A toxin intravesical injection in patients plagued with refractory bladder pain combined with symptoms of overactive bladder (frequency, urgency, nocturia). The study noted a definitely subjective improvement at one to three months post therapy but by one year post injection, the patients had returned to their baseline. The therapy was basically well tolerated but there was a substantial number of patients (9/13) that had dysuria in addition to 20 percent of the patients needing a period of self intermittent catheterization post procedure.

The report helps highlight the exciting use of Botulinum A toxin in urology. Though no medication is a panacea, it appears that the use of this intravesical agent may assist the urologist in treating a segment of our patient population that is among the most challenging. This report raises the question that patients with a non neurogenic type of voiding dysfunction may have a higher rate of urinary retention secondary to the Botulinum A toxin. Given this finding, it will be worthwhile for the treating physician to alert the patient that self intermittent catheterization is a distinct potential reality after this therapy. Unfortunately, even with a good response, patients will require repeat therapy to continue the beneficial effect; as noted in this paper the patients did request repeat a treatment because of the symptomatic relief they enjoyed. Given that there is a high rate of placebo effect in this patient population, enthusiasm should be tempered until a placebo controlled randomized study may be completed.

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