

BOTULINUM-A-TOXIN FOR TREATMENT OF DETRUSOR HYPERREFLEXIA IN SPINAL CORD INJURY PATIENTS

Aims of Study

Detrusor hyperreflexia with elevated storage pressures is a major risk factor for renal damage in patients with neurogenic lower urinary tract dysfunction. If anticholinergic treatment is unsuccessful, surgical treatment must be considered. We evaluated the effects of botulinum-A-toxin treatment on detrusor hyperreflexia in patients that failed standard anticholinergic treatment.

Methods

20 patients, mean age 31 years, with storage pressures above 40 cm H₂O despite standard anticholinergic treatment received injections of 300 I.U. botulinum-A-toxin (Botox®, Merck, Germany) dissolved in 15 cc of saline. Follow-up included urodynamic testing, renal ultrasound, and evaluation of side effects.

Results

As 6 patients received 2 treatments, and 1 patient was treated 5 times, 30 treatment procedures in 20 patients were evaluated. Mean follow-up was 9.2 months. No permanent side effects were observed. Botox® treatment led to a significant increase in bladder storage volume from 315 cc to 444 cc after 3 months and to 445 cc after 6 months. Mean maximum storage pressure was significantly reduced from 53 cm H₂O to 28 cm H₂O after 3 months and to 33 cm H₂O after 6 months. Over all, the treatment was successful in 80% of the injections. The mean duration of the treatment success was 7.5 months.

Conclusions

Botulinum-A-toxin injections in the detrusor seem to be a safe and effective treatment option in detrusor hyperreflexia. Until today, repeated injections did not lead to antibody formation or loss of efficacy. Long term observations concerning side effects, and efficacy are needed.