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LOW-DOSE BOTULINUM-A TOXIN INJECTIONS INTO DETRUSOR MUSCLE: EFFECT ON CONSERVATION OF MICTURITIONS

Hypothesis / aims of study

Botulinum-A toxin injections into the detrusor muscle (BotD) is a recent therapeutic option for major detrusor overactivity when anticholinergic drugs are ineffective or inadvisable, but usually involves adoption of clean intermittent catheterisation (CIC). We review our casuistry and refer our experience in BotD performed in patients not in CIC regimen.

Study design, materials and methods

From December 1999 to March 2004 five patients not in CIC regimen (1 male and 4 females, age min 47, max 81, average 64 years) were treated with BotD for major urge-incontinence. Bladder hyperactivity was not-neurogenic in 2 women and neurogenic in 3 patients (2 multiple sclerosis and 1 male with outcome of lombar laminectomy for discal hernia). None of them needed CIC at all and all used more than 5 pads/day. Indications were resistance to oral and topical anticholinergic drugs in 3 patients - in the man also percutaneus sacral nerve stimulation test was ineffective - while 2 women had severe contraindications to anticholinergic drug therapy (1 dyplopia and 1 glaucoma).

The evaluation before BotD included clinical examination, urine analysis, micturition diary and complete videourodynamics. BotD were performed under cystoscopic control in Day Surgery with topical anesthesia; all patients were injected with 500 units of Dysport at 20 different sites, sparing the trigonum, in order to mantain spontaneous micturitions (Sm) and/or to reduce urine residual.

During follow-up patients were evaluated with micturition diary, physical examination and urine residual evaluation at 1 and 3 months and then when necessary.

Results

No post-operative complications were observed, neither toxin-related side effects were reported.

In 10 days incontinence disappeared completely in the man and in 1 woman with multiple sclerosis; the man developed complete urinary retention and needed 4 autoCIC daily while the woman conserved Sm without urgency and without urine residual.

In 8-10 days incontinence reduced significantly in 3 women. They conserved Sm without urine residual; pads use decreased (mean from 5 to 1,3/day) together with frequency (mean from 17 to 8 micturitions/day). Bladder volume improved in all patients (mean from 80 to 330 mL).

BotD effects lasted min 6 max 23 month (average 15 months). Treatment was repeated twice for the man and three times for the woman who had best result, always on reappearance of symptoms, making a reference to micturition charts.

Interpretation of results and concluding message

Significant and long-lasting improvement of urge-incontinence has been observed in all patients, together with their subjective satisfaction, nothwithstanding half dose of botulinum-A toxin. In our experience Sm are mantained in 100% of females but not in the only man who needs complete autoCIC.

References

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