

Oral presentation

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Does long term intravesical oxybutynin treatment of hyperreflexic neurogenic bladder result in bladder auto-augmentation?

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Background

The main goal of the treatment of neurogenic bladder is to promote continence and protect the upper urinary tract from deterioration. Conversion of a hyperreflexic detrusor to a lower pressure detrusor could be reached by the use of anticholinergic medication and clean intermittent catheterization (CIC). Important alternative to reduce side effects and lower the detrusor pressure is the intravesical administration of oxybutynin. The presented study investigated the urodynamic effects of the long-term administration of intravesical oxybutynin in hyperreflexic neurogenic bladder to evaluate the property of bladder auto-augmentation.

Materials and methods

The study included two groups of patients with hyperreflexic neurogenic bladder. Group I was treated with CIC and oral anticholinergic medication, group II with CIC and intravesical oxybutynin instillation. Urodynamic assessment was performed before treatment and every following year.

Results

Group I included 9 patients (mean 17.6 years), group II 12 patients (15.8 years). The bladder compliance of 3/9 patients of group I increased to normal values with age (>10 ml/cmH₂O). 6/9 patients of group I responded partially with an increase of bladder compliance. The overall bladder capacity increased from 177 ml +/- 104 ml up to 367 ml +/- 123 ml in group I. 2/12 patients of group II

stopped the treatment due to side effects. 7/10 patients of group II increased their bladder compliance up to three times with age and reached normal values. The bladder capacity (group II) increased from 148 +/- 61 ml up to 351 +/- 105 ml. 3/10 patients of group II responded only partially with a moderate increase of bladder compliance (2/10) or no improvement (1/10).

Conclusion

Oral anticholinergic medication and intravesical oxybutynin are effective to increase bladder capacity. Furthermore intravesical oxybutynin also increases bladder compliance. This leads to diminished bladder pathophysiology. Intravesical oxybutynin instillation enables sufficient bladder auto-augmentation in selected patients with neurogenic hyperreflexic bladder.