

## **NEUROGENIC BLADDER TREATMENT BY DOUBLING THE PERMISSIBLE ANTICHOLINERGIC DOSAGE**

### Hypothesis / aims of study

Patients with neurogenic bladder and suffering with urgency incontinence were initially treated with the recommended dosage of an anticholinergic drug. If the treatment was without the aspired effect and if it was well tolerated, the dosage was increased. The tolerability and the success of the higher than recommended dosage of the drug was evaluated.

### Study design, materials and methods

Of the 21 patients (6 women, 15 men) 17 had spinal cord injury, 3 had multiple sclerosis and 1 had meningocele. The patients were either treated with Tolterodin extended release or Trospiumchloride. The initial dosage was 1 x 4 mg of Tolterodin extended release or 3 x 15 mg Trospiumchloride. If there was still sign of bladder over activity and the medication was well tolerated, the dosage was increased to a maximum of Tolterodin extended release (2x4 mg (n=11)) or Trospiumchloride (3x30 mg (n=10)). The follow-up was monitored by a voiding/catheter diary and urodynamic evaluation as well as noted new or increased side effects. When side effects increased or the bladder over activity was not sufficiently suppressed, the therapy was stopped.

### Results

With a mean follow up of 7 months (4-18 months), 16 patients had a significant decrease in incontinence episodes (from 8-12 before the treatment to 0-2 after the treatment). The reflex volume increased from 202 +/- 50 to 332 +/- 40. The bladder capacity enlarged from 290 +/- 60 to 453 +/- 40. Five patients (3 with Trospiumchloride, 2 with Tolterodin) did not demonstrate satisfactory benefit. One patient treated with Tolterodin experienced side effects and stopped the medication.

### Interpretation of results and concluding message

An increased dosage of Tolterodin or Trospiumchloride is an effective treatment in patients with neurogenic bladder. In our experience, an 8 mg dosage of Tolterodin extended release is slightly more effective and had less side effects than Trospiumchloride (90 mg). Most patients tolerated the dosage well and reported no or only a moderate increase of side effects.