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# THE VALIDITY OF THE CARBACHOL-TEST IN PATIENTS WITH CHRONIC URINARY RETENTION UNDERGOING TEMPORARY SACRAL NEUROMODULATION

### Aims of Study

The results of sacral neuromodulation in patients with an acontractile detrusor are unsatisfactory. Aim of study was to evaluate whether the result of the carbachol-test has predictive value in patients with chronic urinary retention undergoing a temporary sacral neuromodulation (PNE-test).

#### **Methods**

24 PNE-tests were performed in patients with chronic urinary retention and an acontractile detrusor that was determined by an urodynamic investigation. The electrodes were placed bilaterally at S3. In 18 patients, a carbachol-test was performed during the urodynamic investigation.

#### Results

In all 24 patients, the electrodes could be placed bilaterally at S 3. 8 of the 24 patients (33.3%) could empty the bladder completely. In 12 patients, the carbachol-test was negative and in 6 patients, the carbachol-test was positive indicating a decentralised detrusor. In 5 of the 12 patients (41,7%) with a negative carbachol-test and in 3 of the 6 patients (50%) with a positive carbachol-test, complete bladder emptying (residual urine < 50 ml) was observed during the PNE-test. In all these patients, the PNE success was verified in the urodynamic investigation during PNE-test by an adequate increase in detrusor pressure and residual urine < 50 ml.

### **Conclusions**

We conclude that the carbachol-test has no predictive value concerning the success rate during sacral neuromodulation in patients with an acontractile detrusor. The questions remains open why patients with a positive carbachol-test - indicating the detrusor decentralistion - could benefit from the bilateral sacral neuromodulation.