

THE ROLE OF THE SYMPATHETIC NERVE SYSTEM IN PATIENTS WITH CHRONIC URINARY RETENTION UNDERGOING TEMPORARY SACRAL NEUROMODULATION.

Aims of Study

Aim of study was to evaluate whether the success of a temporary sacral neuromodulation (PNE-test) in patients with chronic urinary retention is dependent on the nerve lesions that are responsible for the bladder dysfunction.

Methods

24 PNE-tests were performed in patients with chronic urinary retention due to an acontractile detrusor that was determined by an urodynamic investigation. The nerve lesion that is probably responsible for the acontractile detrusor was analysed in all patients and correlated with the success of the PNE-test. The PNE-Test was classified as successful if residual urine was < 50 ml and an adequate increase in detrusor pressure was seen in the urodynamic investigation during PNE-test.

Results

In 8 of the 24 patients (33.3%) , the PNE-test was successful. In 5 of 6 (83.3%) patients with peripheral nerve lesions after hysterectomy or sacral fracture , the PNE-test was positive. 2 of 9 (22.2%) patients with lesions in the lumbar region and 1 of 3 (33,3%) patients with an upper motor neuron lesion could benefit from the PNE-test. Patients with a generalised neuropathy (n = 6) could not benefit.

Conclusions

The success rate of a PNE-test in patients with an acontractile detrusor seems to depend on the localisation of the nerve lesion. Patients with peripheral lesions (isolated lesion of the parasympathetic pathways) seem to benefit more than patients with central lesions or a generalised neuropathy. The analysis of the nerve lesions leads to the hypothesis that sympathetic pathways are mainly involved in the conduction of the efferent signals to the bladder because these pathways are completely intact in the patients with best success rate.