

TIBIAL NEUROSTIMULATION IN THE TREATMENT OF PATIENTS WITH DIABETIC OVERACTIVE BLADDER

Hypothesis / aims of study

Overactive bladder is one of the clinical manifestations of diabetic cystopathy and it usually occurs at the early stages of diabetes complications. Diabetic cystopathy at its last stages is characterized by sensory disturbances and contraction of the bladder and increasing the postvoid residual urine. Diabetic overactive bladder could be known as a variant of neurogenic lower urinary tract dysfunction caused by diabetic neuropathy. The standard treatment for diabetic overactive bladder is anticholinergic treatment in higher doses than the same (in compare to treatment of idiopathic form of the disease) in the idiopathic form of the disease. Some of the patients have resistance to standard drug therapy and then one of the possible ways of treatments of these patients is peripheral nerve stimulation (neuromodulation) N. tibialis posterior.

The aim of this study was to evaluate the effectiveness of peripheral nerve stimulation of patients with the resistance form of overactive bladder to anticholinergic therapy.

Study design, materials and methods

We completed the treatment of 21 patients with diabetic overactive bladder (16 women and 5 men) aged $48,4 \pm 4,2$ years. All patients underwent the peripheral neurostimulation according to the M. Stoller (1987) approach. Neurostimulation course consisted of 12 procedures that were performed weekly for 3 months. Treatment efficacy was evaluated according to the diary of urination (every 2 weeks) and the results of urodynamic studies (before and after treatment).

Results

The positive effect of the therapy was indicated with 18 (85.7%) patients (3 men and 15 women), which was shown in an increasing in volume of bladder and decreasing the frequency of daytime and nighttime urination.

Interpretation of results

The urodynamic examination showed decreasing in sensitivity of the bladder and increasing of the maximum cystometric capacity. Decreasing in the detection rate of involuntary detrusor activity was from 52.4% (11 patients) before treatment to 33.3% (7 patients) after its completion. With 7 patients (all women), improvement was noted after the 1 st session of neurostimulation, 9 patients (6 men and 3 women) after the 3rd session and after the 7th session with the remaining 2 patients. No any side effects were observed.

Concluding message

This study had shown the high efficacy and good tolerability of tibial nerve stimulation of patients suffer with diabetic overactive bladder, which is resistant to anticholinergic therapy.

Disclosures

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