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## ASSESSMENT OF POSTURAL STABILITY OF PATIENTS WITH DIABETIC PERIPHERAL NEUROPATHY AFTER TREATMENT WITH ALPHA-LIPOIC ACID

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Abstract

Diabetic peripheral neuropathy (DPN) is a complication of diabetes mellitus that affects the postural stability. We studied the changes of equilibrium in thirty-seven patients with diabetes mellitus type 2 and DPN after treatment with alpha-lipoic acid (ALA) in 600 mg/daily dose. Postural stability was measured using static posturography immediately before and after 60 days drug therapy in two visual conditions (eyes open and closed) on stable and soft surfaces. Mean radius of the centre of foot pressure (COP) displacements in the area under the feet (MR), mean sway velocity (MV) of the COP displacement and the Romberg coefficient were used for the evaluation of the postural stability. All posturographic parameters were significantly improved after the treatment compared to those before the treatment with ALA. The most evident effect of treatment with ALA was observed for mean radius of the COP displacements in all conditions, as well as on the sway velocity of postural sways in the eyes open conditions. The results show that the treatment produces an increase of visual dependence of postural sways' MV in DPN patients. Treatment with ALA showed alleviation of the symptoms of DPN and stabilized the quiet upright stance that could lead to improvement of the quality of life of patients. The results suggest that the estimation of the efficacy of DPN treatment is a new and prospective method.

Key words: alpha-lipoic acid, diabetic peripheral neuropathy, postural sway, static posturography