

DIFFERENTIATED APPROACHES TO THE REHABILITATION OF PATIENTS WITH A VIOLATION BALANCE IN CEREBRAL STROKE

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Currently, the number of cerebrovascular diseases is steadily increasing, both among adults and among the young population. According to statistics, about 20 million people suffer a stroke every year. The main consequences of acute cerebral circulatory disorders include motor disorders, often manifested by an imbalance. Currently, the mechanisms of maintaining postural balance are actively discussed in the literature. It is proved that the stability of patients is influenced by information coming from the visual, vestibular, proprioceptive, somatosensory, mandibular analyzers. However, despite the broad theoretical and practical study of the problem, differentiated approaches to restoring the balance function in patients with cerebral stroke are not sufficiently considered.

The purpose of the study. Development of individualized approaches to restoring postural balance in patients with cerebral stroke, depending on the identified neurological syndromes.

Methods. The study included 105 patients in the early recovery period of cerebral stroke in the carotid basin. Of these, 64 were men and 41 were women (the average age was 61.35 ± 5.74 years). The work was carried out on the basis of the ASMI clinic, rehabilitation was carried out according to the standards of medical care. The rehabilitation course lasted 10-12 days. Before admission to the clinic, patients underwent a complete clinical and functional examination. In order to fully assess the postural balance, its static (Standing Balance Test) and dynamic components (Berg Balance Test) were considered. The obtained results were objectified by conducting stabilometric testing while standing calmly with open and closed eyes. In the study of mental functions, the Montreal Cognitive Scale was used. Assessments, Hospital scale of anxiety and depression, the scale of Restoration of the locus of control, the Bourdon test. All patients were examined by a psychologist. The Fugle-Mayer Scale was used to inspect the sensitive sphere. The main factor determining the distribution of patients into groups was the leading neurological syndrome. 4 groups were identified. Group 1 (n=54) included patients with hemiparesis. Of these, 25 had mild paresis in the foot (group 1a), 29 had moderate paresis (group 1b). 24 patients from group 1 received ethylmethylhydroxypyridine succinate at a dosage of 250 mg/day intramuscularly (12 people in group 1a and 12 in group 1b). A sensitive monosyndrome was detected in group 2 (n=26). The drug was administered in the same dose to 13 patients. Violation of postural balance in group 3 patients (n=25) was accompanied by cognitive impairment, 12 of them were prescribed ethylmethyl therapy-hydroxypyridine succinate in a similar dose. In order to have a differentiated effect on the postural balance, patients of all groups were assigned a stabilometric training. Group 3 patients were additionally offered exercises for the most damaged block of cognitive functions. Statistical processing of the material was performed using nonparametric methods of Wilcoxon and Spearman. The differences were considered statistically significant at the significance level of $p < 0.05$.

Results. After completion of the rehabilitation course, group 1a patients showed a statistically significant improvement in postural balance (both static and dynamic components). At the same time, there were no significant differences between the subgroup of taking and not taking the drug. Similar data were obtained in the 2nd group. In addition, these patients were diagnosed with a tendency to restore sensitivity according to the Fugl-Mayer scale. In patients of group 1b, statistically a significant improvement in postural balance was revealed only in the subgroup with the use of ethylmethylhydroxypyridine succinate. The results were obtained by analyzing the static component of the balance and the stabilometric testing (the area of the statokinesiogram and the velocity of the

center of pressure). In group 3 patients, the use of the drug contributed to a statistically significant increase in the result according to the Montreal Cognitive Assessment Scale (mainly due to memory, attention, optical-spatial activity), a decrease in anxiety symptoms according to the Hospital Anxiety and Depression Scale, increased motivation for treatment and rehabilitation according to the Restoration of the locus of Control scale. In addition, the improvement of the static and dynamic components of the postural balance. At the same time, the indicators of mental functions and equilibrium functions correlated with each other (Spearman correlation coefficient 0.72). In group 3 patients without the use of ethylmethylhydroxypyridine succinate, only a decrease in anxiety symptoms according to the Hospital Anxiety and Depression Scale was revealed. At the same time, there was no change in postural balance, either clinically or instrumentally.

Conclusions. Stabilometric training in a complex of rehabilitation measures significantly improved postural balance in patients with mild paresis of the foot of the lower limb and in patients with sensitive monosyndrome. In patients with moderate paresis in the foot and with disorders of mental functions, it is advisable to use neurometabolic support drugs to improve postural balance, and in case of cognitive decline, cognitive training is additionally used. Further developments on the individual the implementation of stabilometric training, taking into account the personal needs of patients and impaired sensorimotor and mental functions, will increase the effectiveness of the assistance provided.

Literature:

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