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Stroke rehabilitation of patients with upper limb lesion

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Acute cerebrovascular accident remains one of the most frequent causes of disability and mortality in the population.

Objective: Study of the effectiveness of complex rehabilitation using the method of functional electrostimulation.

Method: 35 patients, aged 27 to 82 years, who had a stroke with consequences in the form of central hemiparesis.

Changes were assessed by indicators of muscle strength, range of motion in joints, endurance of muscle groups, modified Ashforth scale, Test Frenchay Arm and. International Classification of Functioning (ICF). All patients were divided into 2 groups by single blind randomization. The first group - 25 patients, received a standard complex: physical therapy, mirror-therapy, mechanotherapy on the simulator Thera-Vital. The second group - 10 patients, received a standard complex and functional electrostimulation (FES).

Results: Patients noted a significant decrease in muscle tone by 15 %, an increase in active movements by 47 %, an increase in muscle strength and endurance by 1,7 times, and an improvement in the functions of capturing items necessary in everyday life, as well as the functions of eating, drinking and caring for themselves. When comparing the two groups, a greater efficiency of rehabilitation was revealed in the second group with the FES method by 18% than in the first group with the standard methods.

Conclusions: Effectiveness of the use of FES in the rehabilitation of post-stroke patients has been proven and the method of its application, the protocol for assessing the severity of impairments to motor and functional activity using ICF has been described.

Biography

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