RESTORATION OF SHOULDER JOINT FUNCTION OF PATIENTS WITH HEMIPARESIS IN ACUTE HEMISPHERIC STROKE

Dr Sergey Kaurkin[1], Dr Dmitry Skvortsov[1], Dr Galina Ivanova[1]
[1]Pirogov's Medical University , Moscow, Russian Federation

Introduction. The functional pathological changes in the shoulder joint at the dynamics of the acute period of cerebral stroke are still not clear.
Purpose was to find out the functional disturbances of shoulder joint and its dynamics at acute stroke.
Method. Three groups of 25 people each: the control persons without neurological and orthopedic pathology, physical therapy group – receiving standard treatment and physical therapy, physical therapy and biofeedback group where the course was complemented by biofeedback training. Was conducted clinical study and registration of the biomechanics of movement in the shoulder joints and functional electromyography of the muscles of the shoulder girdle.
The **results** of the study showed that in patients with hemiparesis during the acute period of stroke have no significant dynamics in the evaluation by clinical scales. Biomechanical study found that in the control group the movements in shoulder joints in the same plane, has a main component with a maximum amplitude in the plane of this movement and additional in other planes with significantly lower amplitude, and accompanied by ancillary movements of the torso. Functionally, the condition of paresis at the level of the shoulder joint is characterized by a decrease in the amplitude of the primary movement and one of the additional increase in amplitude, while the amplitude of the auxiliary movements of the trunk increase. Biomechanical methods recorded: improvement of flexion at physical therapy group - 6 %, in group therapy and biofeedback to 10% and abduction in the group therapy was 4% in group physical therapy and biofeedback to 9%.
Conclusion. A biomechanical method is more sensitive and informative method of diagnostics of disorders of motor function and assessment of recovery process of the movement of the shoulder joint in patients with hemiparesis in the acute period of hemispheric stroke.