

## **ADAPTIVE MECHANISMS OF NEUROPLASTICITY IN THE RECOVERY OF MOTOR FUNCTIONS AFTER ISCHEMIC STROKE**

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**Key words:** ischemic stroke, hemiparesis, physical rehabilitation, kinesiotherapy

The aim of this study was to prove the effectiveness of early physical rehabilitation for restoring motor functions in paretic limbs in patients with ischemic stroke (IS) with hemiparesis [1-3].

We analyzed 14 case histories of patients who underwent IS with hemiparesis, 10 of which began early physical rehabilitation, and 4 patients did not exercise in the early post-stroke period, who received early physical rehabilitation - kinesiotherapy.

In the course of the research, it turned out that 10 patients who underwent early physical rehabilitation in the form of kinesiotherapy had a positive dynamics in the restoration of motor functions in the paretic limb. So, by the end of the fourth week after a stroke, 11 out of 15 patients had the ability to perform simple active movements, their volume recovered to 20%, in 4 patients these changes were detected by the middle of the fifth week. By the end of the 3rd month, in 15 patients, the recovery of motor function reached 50%. None of this group of patients experienced the formation of spasticity and limitation of passive movements. In 4 patients who did not undergo early physical rehabilitation, the formation of spasticity and a significant limitation of passive movements were observed on the 4th week after suffering IS, in 2 of them the development of contractures was noted by the second month.

As the results of the study showed, neglect of the physical aspect led to very unfavorable consequences: the terms of bed rest, inpatient treatment were unreasonably

prolonged, leading to the formation of contractures, which leads to temporary disability of patients. Undoubtedly, early motor activation of patients contributes to a better recovery of motor functions and reduces the risk of post-stroke complications. Thus, it is better to start treatment of post-stroke spasticity as early as possible, since the shorter the period from the onset of a stroke, the greater the likelihood of improvement.

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