

STRUCTURAL AND FUNCTIONAL COMPONENTS OF CENTRAL MECHANISMS OF RECOVERY
IN PATIENTS WITH STROKE

A. Razumov²

*Physiotherapy and Rehabilitation, Moscow Regional Research and Clinical Institute of
M.F. Vladimirsky, Russia
Restorative Medicine, Sechenov University, Russia*

Establishment of the central mechanisms for the recovery of patients with stroke will be the "key" to the pathophysiologically substantiated implementation of rehabilitation measures. Violations of executive functions are found in 43-78% of patients. Materials and methods: The study included 203 patients: 133 (65.5%) with ischemic stroke of hemispheric localization, 40 (19.7%) with vertebrobasilar localization, 30 (14.8%) with hemorrhagic stroke. We studied the influence of demographic, clinical, neuroimaging, ultrasound, neurophysiological factors on the parameters of evoked potentials during rehabilitation. Based on the results of the neurophysiological and clinical examination, the block of executive functions was divided into 4 parts: attention and speed of "inclusion" in the task; correct recognition of stimuli; orienting reaction and decision making; the amount of random access memory (RAM) and the variability of responses. Results: RAM is the most vulnerable in patients with stroke (p0.05). The greatest influence on RAM was exerted by: the right-sided localization of the lesion and the presence of stenosis of the internal carotid artery (p0.05). With right-hemispheric localization, violations were noted in distinguishing short time intervals (300-600 milliseconds) and the inability to correctly perform cognitive and motor tasks. With the improvement of psychomotor functions, an increase in the amount of RAM was always observed (p0.05). Conclusion: The division of the block of executive functions into components is not characteristic of classical Neuropsychology. However, the use of neuropsychological and neurophysiological examination methods in rehabilitation may be of greater practical importance of this approach.

