

Kodirov Javokhirbek Shukhratjon ugli
Andijan State Medical Institute

MODERN APPROACHES TO REHABILITATION OF PATIENTS AFTER STROKE

Abstract. Their timely detection and correction can improve the functional outcome. Currently, the use of many drugs with neuroprotective properties does not have a serious evidence base. The most effective rehabilitation schemes with the inclusion of modern drugs are actively sought. The article provides an overview of the latest studies on the possibilities of using memantine in ischemic stroke.

Keywords: ischemic stroke, rehabilitation, cognitive impairment.

INTRODUCTION

In recent decades, there has been a global increase in the prevalence of cerebrovascular diseases, including strokes, the consequences of which are the main cause of disability in older people [1]. The proportion of patients unable to live independently and care for themselves, already one year after a stroke, is approximately 30% [2]. In this regard, one of the main tasks of Russian healthcare is to slow down the increase in disability of the population, which is achieved through the active development of the rehabilitation system in our country, including neurorehabilitation.

MATERIALS AND METHODS

Neurorehabilitation is one of the relatively young areas of rehabilitation. It is a progressive, dynamic and targeted process, the task of which is to achieve an optimal level of physical, cognitive, emotional, social, communicative and functional activity by a patient with existing disorders [3]. Restoration of impaired functions by selecting effective rehabilitation means and choosing adequate drug treatment is a complex and lengthy process that requires the participation of a multidisciplinary team of specialists. Due to the occurrence of a complex neurological deficit in most patients after a stroke, rehabilitation includes a variety of measures aimed at restoring or compensating for impaired functions of the nervous system. The basis of recovery processes are the mechanisms of neuroplasticity – the ability of nervous tissue to undergo structural and functional restructuring that occurs after its damage, which contributes to the restoration of not only impaired motor functions, but also memory, learning, and the acquisition of new skills [4].

RESULTS AND DISCUSSION

Restoration of cognitive functions is necessary at all stages of rehabilitation, since their decline causes insufficient patient involvement in the rehabilitation process, which can significantly complicate it, as well as significantly reduce the quality of life. Cognitive abilities are important for combating the entire range of neurological disorders present in the patient, since patients with a higher cognitive status at the start of rehabilitation measures achieve better results in recovery [2]. Cognitive impairments can reduce the ability to learn instructions, plan and independently perform exercises, as well as solve various types of problems. The level of preservation of cognitive functions in patients after a stroke has an independent correlation with the degree of involvement in the rehabilitation process in a hospital [3]. Cognitive rehabilitation of patients who have suffered a stroke accelerates information processing, allows the patient to obtain a

correct idea of the preserved functions of the body and promotes more successful social and everyday adaptation taking into account the existing deficit. The results of a number of studies demonstrate the effectiveness of some drugs in improving cognitive functions at different stages of recovery of patients after a stroke. Thus, drugs with a neurotrophic effect can contribute to better recovery after a stroke, although the data available to date are contradictory and require further research [4]. A number of recent studies that assessed the effectiveness of restoring cognitive functions in the process of rehabilitation of patients after a stroke also did not note significant improvement in relation to attention and executive function disorders [2].

In order to develop a correct rehabilitation strategy for the correction of cognitive deficit in patients after a stroke, it is first necessary to understand the underlying causes of these disorders, as well as their timely diagnosis at early stages of occurrence and assessment of their severity in order to determine the effectiveness of treatment and rehabilitation measures.

Today, in Russia there is a three-stage rehabilitation system for patients after a stroke:

- acute stage of stroke (stage I) - primary vascular departments;
- early recovery period (stage II) - specialized care in early rehabilitation departments (hospital);
- late recovery period (stage III) - outpatient clinic and rehabilitation centers.

The staging of rehabilitation measures underlies the algorithm for identifying cognitive disorders and conducting cognitive rehabilitation in patients with acute cerebrovascular accidents (ACVA).

At stage I, after clinical and neuroimaging examination, it is important to evaluate cognitive functions, which must be carried out by a neurologist or neuropsychologist (neuropsychological testing), if the general condition of the patient allows it and even if the patient outwardly gives the impression of being “preserved”. Screening tests for such an assessment of cognitive functions include the Mini Mental State Examination (MMSE), the “clock drawing” test, a test for free and directed word associations, serial counting, repetition of numbers in direct and reverse order, a test for memorizing a series of words or images with an assessment of both free reproduction and recognition. If violations are detected, the beginning of appropriate treatment is indicated. The wide range of drugs with neuroprotective properties used today do not have a serious evidence base for their effectiveness, however, the results of individual studies suggest an improvement in the restoration of memory functions, attention, and concentration while taking drugs of this group, such as cerebrolysin, citicoline, actovegin, mexidol, etc. [3].

CONCLUSION

Medical rehabilitation of patients with complex neurological deficit (cognitive, motor, speech) after a stroke requires the organization of a complex, highly professional and staged system of providing specialized (at stages I and II) and primary specialized medical and sanitary (at stage III) care with mandatory consideration of the specifics, clinical features and variants of the course of the disease. Of particular importance are a personalized, patient-oriented approach to treatment and ensuring continuity in the implementation of treatment and rehabilitation measures at various stages of medical rehabilitation.

REFERENCES

1. Vakhnina N.V., Parfenov V.A., Nikitina L.Yu. Cognitive impairment in stroke and their treatment with memantine. *Clinical Gerontology* 2015; 11(8): 49–52.

2. Gusev E.I., Kamchatov P.R. Plasticity of the nervous system. *Korsakov Journal of Neurology and Psychiatry* 2014; 3: 73–78.
3. Ilyasova F.N., Levin O.S. Effect of hypoglycemic therapy on the dynamics of cognitive impairment in type 2 diabetes mellitus in the early recovery period after ischemic stroke. *Zemsky Vrach* 2015; 3(27): 19–22.
4. Karpova E.N., Muravyov K.A., Muravyova V.N., Karpov S.M., Shevchenko P.P., Vyshlova I.A., Dolgova I.N., Khatueva A.A. Epidemiology and risk factors for the development of ischemic stroke. *Modern problems of science and education* 2015; 4:441–450.
5. Якубова, Р.М., 2024. ФАРМАКОЛОГИЧЕСКИЕ АСПЕКТЫ ИСПОЛЬЗОВАНИЯ РАСТИТЕЛЬНЫХ ПРЕПАРАТОВ В ЛЕЧЕНИИ ОСТРЫХ РЕСПИРАТОРНЫХ ВИРУСНЫХ ИНФЕКЦИЙ (ОРВИ). *Экономика и социум*, (3-1 (118)), pp.1121-1124.
6. Bahadyrova, N.N., 2024. THE SIGNIFICANCE OF PSORIASIS AT PRESENT. *Ethiopian International Journal of Multidisciplinary Research*, 11(03), pp.202-204.
5. Mukhamedova, M., Orziev, D. Z., Uzokov, J. K., & Abdullaev, A. X. (2023). Optimization of antiplatelet therapy in patients with coronary artery disease and type 2 diabetes mellitus after percutaneous coronary interventions. *European Journal of Cardiovascular Nursing*, 22(Supplement_1), zvad064-111.
6. Nasirova, G. A., & Mukhamedova, M. G. (2023). Chronic heart failure and COVID-19. *International Journal of Scientific Research Updates*, 5(1), 138-42.
7. Фозилов, Х. Г., Шек, А. Б., Бекметова, Ф. М., Алиева, Р. Б., Мухамедова, М. Г., Муллабаева, Г. У., ... & Хотамова, М. Н. (2021). Особенности деформационных свойств левого желудочка у больных с поражением коронарных артерий. *Клиническая и экспериментальная хирургия*, 9(3), 118-124.
8. Karimov, B., Abidova, D., Muyassar, M., Uzakova, M., Orziev, D., Ubaydullaev, S., & Naezulloeva, D. (2022, June). Plasma B-type natriuretic peptide in patients with coronary artery disease and metabolic syndrome. In *EUROPEAN JOURNAL OF CLINICAL INVESTIGATION* (Vol. 52). 111 RIVER ST, HOBOKEN 07030-5774, NJ USA: WILEY.
9. Qizi, B. O. S., Qizi, X. D. A., & Yusupovich, M. I. (2022). IJTIMOIIY SIYOSAT: ROSSIIYADA INKLYUZIV TA? LIM HAQIDA. FAN, TA'LIM VA AMALIYOTNING INTEGRASIYASI, 922-930.
10. Yusup o'g'li, M. I. (2022). Mustaqil ta'limni blended learning texnologiyasi asosida tashkil etish. FAN, TA'LIM VA AMALIYOTNING INTEGRASIYASI, 126-131.
11. Taxirovich, A. S. (2025). TEACHING THE TOPIC OF INTESTINAL INFECTIONS USING THE EXAMPLE OF ACL (ACTIVE COLLABORATIVE LEARNING). *Ethiopian International Journal of Multidisciplinary Research*, 12(01), 557-559.
12. Kuzieva, S. U., Imomova, D. A., & Duschanova, G. M. (2019). Structural features of vegetative organs *Spiraea hypericifolia* L., growing in Uzbekistan. *American Journal of Plant Sciences*, 10(11), 2086-2095.

13. Yusup o'g'li, M. I. (2024). OLIY TA'LIM MUASSALARIDA INKLYUZIV TA'LIMNI RIVOJLANTIRISH: MUAMMO VA YECHIMLAR. FAN, TA'LIM VA AMALIYOTNING INTEGRASIYASI, 5(1), 1-10.

14. Бозоров, Ш. Т., Гафуров, А. А., Юлдашев, М. А., Абдукодиров, Ш. Т., & Розимаматова, Г. С. (2022). КОЛОСТОМИЯ ПРИ ОСЛОЖНЕНИЯХ ХИРУРГИЧЕСКОЙ КОРРЕКЦИИ АНОРЕКТАЛЬНОЙ МАЛЬФОРМАЦИЙ У ДЕТЕЙ. Экономика и социум, (8 (99)), 139-144.

15. Кузиева, С. У., & Ишонкулова, Д. У. (2018). ВЫДЕЛЕНИЕ И ЭЛЕКТРОФОРЕТИЧЕСКИЕ СВОЙСТВА МАЛАТДЕГИДРОГЕНАЗЫ ХЛОПЧАТНИКА. In INTERNATIONAL SCIENTIFIC REVIEW OF THE PROBLEMS AND PROSPECTS OF MODERN SCIENCE AND EDUCATION (pp. 14-16).