

*Poziljonova D.A.*

*Assistant Department of Neurology, ASMI.*

## COGNITIVE IMPAIRMENT IN PATIENTS WITH CHRONIC MIGRAINES

**Introduction.** Memory and attention disorders are a common problem in patients with chronic migraines. Studies show that about 56% of patients with chronic migraines complain of memory impairment. These impairments may include difficulties with attention, memory, and learning.

Cognitive impairments in patients with chronic migraine may be associated with frequent and severe headaches, as well as concomitant conditions such as depression and sleep disorders. It is important to note that these disorders are often underestimated and can significantly impair the quality of life of patients.

The aim of the work is to study the presence and nature of subjective and objective cognitive disorders in patients with chronic migraine.

**Keywords:** cognitive disorders, chronic migraine, episodic migraine, headache, hospital anxiety scale, depression HADS, night sleep quality questionnaire PSQI (Pittsburg Sleep Quality Inventory), MoCa test.

Migraine is a disease characterized by episodic paroxysmal headaches of considerable intensity, which are usually accompanied by nausea and/or hypersensitivity to light and sounds. Migraines are also characterized, but not necessarily, by increased pain during exercise and walking, pulsating, unilateral, or predominant on one side. It is characterized by a decrease in working capacity, working capacity, up to complete loss during an attack. Decreased quality of life with frequent seizures.

This disease can significantly impair the quality of life, leading to a temporary decrease or temporary disability over a certain period of time. Therefore, it is important to carry out proper treatment, adequate relief of seizures and prevention of migraine attacks, both medicinal and behavioral, by following lifestyle recommendations, avoiding risk factors, provoking factors, the so-called "triggers" of migraine. The diagnosis of migraine is mainly based on the collection of complaints and anamnesis, a description of the characteristics of seizures, details and the nature of pain, all details are important and a detailed conversation is required at the initial admission.

In some cases, neuroimaging methods such as MRI and CT are used to exclude other diseases masquerading as migraines. Less often, blood tests, EEG, cardiological examination, ultrasound of the vessels of the neck and head, lumbar puncture with analysis of cerebrospinal fluid may be required.

**Methods.** The study involved 53 patients with chronic migraine and 22 patients with rare episodic migraine (less than 4 days of headache per month) aged 18 to 59 years, matched by gender and age. The diagnosis of chronic migraine and episodic migraine was established in accordance with the International Classification of Headache 3 revision (ICGB-3-beta). All patients with chronic migraine and episodic migraine. A questionnaire was conducted: a questionnaire of demographic and clinical characteristics, the HADS hospital scale of anxiety and depression, the PSQI (Pittsburg Sleep Quality Inventory) night sleep quality questionnaire. Also, all the study participants underwent a study of cognitive functions using MoCa tests (Montreal Cognitive Assessment), Digital Symbol Substitution Test (DSST), the Rey Auditory Verbal Learning Test (RAVLT), and the Perceived Deficits Questionnaire (PDQ-20).

**Results.** The chronic migraine group showed higher levels of depression and anxiety and lower quality of life sleep. At the same time, there was a positive correlation between the level of depression only with the results of the PDQ20 test (subjective assessment of cognitive functions) and delayed reproduction in the RAVLT test. The level of anxiety and sleep quality correlated only with the indicators of general memorization and learning in the RAVLT theta. There was no correlation between levels of depression, anxiety, and sleep quality with indicators of other cognitive functions. 56% of patients with chronic migraine presented independent complaints of cognitive dysfunction. First of all, subjective memory impairments were noted. There was also a violation of cognitive functions in self-assessment using the PDQ-20 questionnaire. An objective study of cognitive functions in the chronic migraine group showed a significant decrease in DSST test results. In the group with chronic migraine, there was also a decrease in the total number of memorized words compared with chronic migraine, as well as a deterioration in the learning rate. There were no differences between the groups on the MoCA scale. At the same time, in the group of chronic migraines, 44% of patients The MoSS score did not reach the generally accepted cut-off point of 26 points and cognitive disorders were diagnosed. The most common decrease in the test is MoCA was noted in the functions of attention (75% of patients), memory/delayed reproduction (50%), speech (50%) and executive function (37%).

**Conclusion.** Patients with CM have a high prevalence of both subjective (56%) and objective impairments (44%) of cognitive functions. First of all, there is a decrease in memory and attention. It is necessary to pay special attention to the relevant complaints made by patients, and the treatment of these disorders can improve the quality of life and ability to work in patients with chronic migraine.

#### Literature:

1. Foti M., Lo Buono V., Corallo F., et al. Neuropsychological assessment in migraine patients: a descriptive review on cognitive implications. *Neurol Sci.* 2017 Apr; 38(4): 553–562.
2. Martins I.P, Gil-Gouveia R., Silva C., et al. Migraine, headaches, and cognition. *Headache.* 2022 Nov-Dec; 52(10): 1471–82.
3. Lee S.H., Kang Y., Cho S.J. Subjective cognitive decline in patients with migraine and its relationship with depression, anxiety, and sleep quality. *J HeadachePain.* 2017 Dec; 18(1): 77.
4. Huang L., Juan Dong H., Wang X., et al. Duration and frequency of migraines affect cognitive function: evidence from neuropsychological tests and event-related potentials. *J Headache Pain.* 2017 Dec; 18(1): 54.