

## Prevention of Consequences of Binswanger's Disease

**Marupov Abrorjon Toshturg'un o'g'li, Madaminov Abdukarimjon**

Fergana Medical Institute of Public Health, Ferghana, Uzbekistan

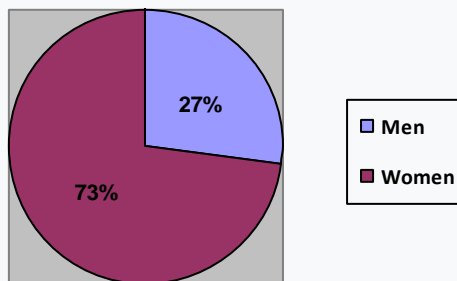
**Abstract:** The urgency of the problem depends on the social consequences of this in chronic progressive cerebrovascular diseases can cause severe disability of patients. As these patients need constant care of other people it requires significant financial costs from both patient's relatives and the state.

**Keywords:** cerebrovascular diseases, binswanger's disease, preventive measures.

### Main part:

**The purpose of the study:** to develop preventive measures to stop the progression of Binswanger's disease.

**Materials and methods:** We examined 26 patients with Binswanger's disease aged 56 to 88 , with an average age of 60.4+\_7.73. Of these, 72.8% are women and 27.2% are men.



The study was conducted in two groups of patients. The first group - the main one, received complex treatment with the inclusion of Memantine. The second group, the control group, which is prescribed basic therapy. All patients are examined deep clinically, neurologically, neuropsychologically, and paraclinically and at the same time they are asked questions about the history of disease and risk factors are analysed.

Neuropsychological tests (description)

### MRI (description)

Research results. It was found that among the patients examined by us, the main risk factor for the development of Binswanger's disease (encephalopathy) was persistent arterial hypertension and chronic arterial hypertension was diagnosed in 85% of the patients who underwent this disease with this pathology. Elderly patients who were not observed with pathology of arterial hypertension and the changes in the main artery of the main brain underwent the disturbance of the circadian rhythm of blood pressure (increase or sharp decrease in blood pressure at night).

Symptoms of progressive vascular leukoencephalopathy developed between approximately 5+-3.7 years. Among the patients examined by us (90%), there was a decrease in patients' criticism of their condition, therefore the relatives of patients consulted with a doctor. There are the following complaints: decreased memory and attention, mood changes, slowness of thinking (70-90%), difficulty in speaking (45%).

In 50% of cases, slowness of movement and disturbance of movement were noted. Weakness in one half of the body (40%), difficulty in swallowing (30%), urinary incontinence (25%) were observed.

An objective examination of the patient revealed dementia syndrome (intellectual-mnemonic decline (90%), other cognitive dysfunctions (aphasia, apraxia, agnosia) (50%)).

Hypo- and bradykinesia, rigidity, dysbasia, and hyposmia were also identified. "Senile walking", ataxia, postural instability with frequent falls are noted in 50% of cases. Hemiparesis, hyperreflexia, pathological signs, pseudobulbar syndrome - in 45%. Pelvic dysfunctions - in 25%.

In the clinical picture of any form of CVD, diseases associated with cognitive, emotional and motor disorders are plays the main role. All syndromes associated with cerebrovascular diseases (vestibulo-cerebellar, amyostatic, pyramidal, pseudobulbar, psychoorganic -from mild cognitive disorders to dementia) occurs due to diffuse anoxic-ischemic injury to the white matter of the brain. In 5-15% of cases, vascular psychoorganic syndrome is found to lead to the degree of permanent dementia.

Analysis of cognitive impairment found that predominance of symptoms of subcortical and frontal dysfunction was found. Dementia, in which symptoms of subcortical dysfunction predominate, is slightly milder, and dementia is found to be more severe in cases of frontal dementia. In patients with recurrent acute cerebrovascular accident, focal neurological symptoms predominate. In addition to focal neurological symptoms, there may be signs of cognitive and affective disorders, asthenia, and decreased body flexibility.

The following indicators were identified when comparing clinical neurological and psychoemotional status indicators in patients in the primary and control groups. On the MMSE scale, the condition of patients receiving drugs from the Memantin group improved by 25.1%, and the condition of patients receiving basic treatment - by 7.5%. According to Burdon's test, in patients treated with Memantin, attention concentration improved by 89.9% and attentional stability by 14.4% (in the second group, 20.6% and 6.6%, respectively). Short-term and long-term memory were tested using a 10-word memory test, and memory performance was assessed.

In the first group of patients, the improvement in the dynamics of treatment was 75.0% in short-term memory, 63.0% in long-term memory, 52.9% in learning productivity, and 20.8% in group 2, respectively; 33.1; and an improvement of 17.8% was observed.

Decreased memory leads to the development of anxiety disorder, so a decrease in anxiety disorder was observed in the group of patients receiving Memantin against the background of improved cognitive function. In the main group, the anxiety in the emotional sphere on reactive and personal characteristics was significantly reduced and amounted to  $32.9 \pm 0.3$  and  $38.1 \pm 0.3$ , respectively.

Thus, the risk factors for the development of Binswanger disease are among the factors that can be corrected. With early detection of the disease and the use of medications until clinical signs develop, we can achieve satisfactory results and prevent the development of irreversible dementia.

## Literature.

1. Bennett D. A., Wilson R. S., Gilley D. W., Fox J. H. (1990). Clinical diagnosis of Binswanger's disease. *J. Neurol. Neurosurg. Psychiatr.* 53, 961–965. [10.1136/jnnp.53.11.961](https://pubmed.ncbi.nlm.nih.gov/1136/jnnp.53.11.961/) [PMC free article] [PubMed][Cross Ref]
2. Akiguchi I, Tomimoto H, Suenaga T, Wakita H, Budka H (1997). «Alterations in glia and axons in the brains of Binswanger's disease patients». *Stroke* 28 (7): 1423–9. PMID 9227695
3. Babikian V., Ropper A. H. (1987). Binswanger's disease: a review. *Stroke* 18, 2–12 [PubMed]
4. Hachinski V. Binswanger's disease: neither Binswanger's nor a disease. *J. Neur. Sci.* 1991; 103:1.
5. Roman G. Senile dementia of the Binswanger type. A vascular form of dementia in the elderly. *JAMA.* 1987; 258:1782-1788.
6. Joutel A, Corpechot C, Ducros A, et al. Notch 3 mutations in CADASIL, a hereditary adult-onset condition causing stroke and dementia. *Nature* 1996; 383:707-710. PMID 8878478
7. Яхно Н.Н. Когнитивные расстройства в неврологической клинике // Неврол. журн. - 2006; 11; приложение № 1. - С. 4-12.
8. Froehlich L. et al. Treatment with donepezil in Alzheimer patients with and without cerebrovascular disease. *Journal of the Neurological Sciences*, 203-204 (2002) 137-139.
9. Левин О. С. Двигательные и когнитивные нарушения в пожилом возрасте / О. С. Левин. – М. [Б. м. б. и.], 2007. – 32 с.
10. <https://interonconf.org/index.php/usa/article/view/324>
11. Абдукадилова, Д. Т. & Тургунов, А. Р. (2023). клиничко-неврологические характеристики парциальной фронтальной эпилепсии. *Golden brain*, 1(9), 142-148.
12. Abduqodirova, d. t., & Turgunov, a. r. (2023). Fokal peshona epilepsiyasining oziga xos klinik xususiyatlari. *Youth, science, education: topical issues, achievements and innovations*, 2(3), 88-94.
13. Abdukadirova, D. T., & Turgunov, A. R. (2022). Clinical and Neurological Characteristics of Partial Frontal Epilepsy. *Miasto Przyszłości*, 29, 279-282.
14. Zokirov, M. (2023, June). Features of cognitive impairment in patients with HIV encephalopathy. In *Academic International Conference on Multi-Disciplinary Studies and Education* (Vol. 1, No. 9, pp. 34-36).
15. Zokirov M.M. & Madjidova Y.N., (2020). Correction of Cognitive Disorder in Patients With HIV - Associated Encephalopathy. *The American Journal of Medical Sciences and Pharmaceutical Research*, 2(07), 117–122. <https://doi.org/10.37547/TAJMSPR/Volume02Issue07-15>
16. Zokiriv, M. (2021). Correction of cognitive impairments in patients with HIV-associated encephalopathy. *J. Theor. Appl. Sci*, 7, 62-66.
17. Zokirov Muzaffar, & Muhammadjonov Oqilbek. (2023). Late clinical and neuroimaging manifestations of post-traumatic epilepsy and optimization of its treatment. *Novateur Publications*, 7, 1–108. Retrieved from <http://novateurpublication.org/index.php/np/article/view/114>
18. Muzaffar, Z. (2023). Anxiety and Depression in Patients with HIV Encephalopathy. *Eurasian Medical Research Periodical*, 21, 95-98.
19. Oqilbek, M., & Muzaffar, Z. (2023). Parameters of Apoptosis and Prevention of Neuro-Like Conditions in Patients with Type II Diabetes Mellitus. *Eurasian Medical Research Periodical*, 21, 99-102.