

The level of psychological stress according to ART data
in patients with ischemic disorders of cerebral circulation

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Introduction

Currently, there is a large group of symptoms of upper diseases, clinical cognitive which mental functions occupy a large place; they are impairment. Higher coordinated realized thanks to functional systems that have a work of complex triple work [11, 12, hierarchical 13]. Used methods of detecting cognitive impairments, psychological tests such as Mini - Mental State Examination, Short portable mental status questionnaire do not reveal mild and moderate cognitive impairments. These tests are reliable in severe cognitive impairment. Considering that the number of registered ischemic cerebrovascular accidents (ICIs) has been increasing in recent years, the problem of cognitive impairments, their diagnosis and the possibility of rehabilitation and control of the dynamics of their recovery remains urgent [1, 2, 3, 4, 5, 6, 10, 14] ...

Materials and research methods

447 patients were examined by random sampling. Before the examination, two groups were identified: the main group consisted of 253 patients with ILI and a control group of 94 patients. The study was carried out in the conditions of the department of rehabilitation treatment of the MLPU GKB No. 1, Novokuznetsk.

Criteria for inclusion in the study of the main group: ischemic stroke in the recovery period; discirculatory encephalopathy (according to the classification of N.N. Yakhno, which corresponds to chronic cerebral ischemia according to ICD 10).

Exclusion criteria: hemorrhagic stroke; subarachnoid hemorrhage; inflammatory and autoimmune vascular diseases.

Exclusion criteria: refusal to be examined.

A total of 253 patients with IUD were examined. The number of men - 120 and women - 133. The average age of men was 56.92 ± 4.52 years, women - 59.24 ± 4.26 years. The proportion of nosological forms in them was: with discirculatory encephalopathy was $23.52 \pm 3.63\%$, cerebral infarction - $76.46 \pm 3.64\%$; by the degree of clinical manifestations: 2.55 ± 0.32 degrees; in terms of duration after an acute disturbance, the period was 5.61 ± 0.52 months. The average age of men was 56.92 ± 4.52 years, women - 59.24 ± 4.26 years. The vast majority of patients (210 people) were over 50 years old. Criteria for inclusion in the study of the control group: the absence of ischemic stroke in the early, late recovery period, residual period; absence of discirculatory encephalopathy (according to the classification of N.N. Yakhno, which corresponds to chronic cerebral ischemia according to ICD 10). Absence of hemorrhagic stroke; subarachnoid hemorrhage; inflammatory and autoimmune vascular diseases, traumatic brain disease.

Exclusion criteria: presence of cervical osteochondrosis, vertebral artery syndrome.

Exclusion criteria: refusal to be examined.

94 people were examined. The number of men - 40 people, age 38.35 ± 4.62 years and women - 54 people, aged 39.45 ± 5.53 years.

The following instrumental and clinical research methods were used, carried out to all patients according to a single scheme: clinical neurological examination, vertebral neurological examination, neuropsychological examination, computed tomography, dopplerography indices, psychological testing, autonomic resonance test (ART) [3, 4, 5], statistical research methods. To confirm the diagnoses, data from laboratory and

paraclinical research methods (EEG, USDG, REG, CT, MRI, X-ray examination).

Research results

Among the examined were 253 patients of the main group with ischemic stroke in the recovery period, discirculatory encephalopathy according to the classification of N.N. It is clear that it corresponded to chronic cerebral ischemia according to ICD 10. Along with the symptoms caused by organic brain damage, a combination of several syndromes was revealed in the examined patients with IUD in the recovery period. The overwhelming majority had vestibulo-atactic ($93.68 \pm 1.52\%$), asthenoneurotic ($83.79 \pm 2.31\%$), dyssomnic ($81.54 \pm 2.43\%$), central hemiparetic ($72.73 \pm 2.79\%$) syndromes. Have $20.55 \pm$

2.54% - psychoorganic syndrome. Cerebellar hemisyndrome was rare (4.35 ± 1.28) and epileptiform syndrome ($1.45 \pm 0.75\%$).

All patients of the main group showed pathological personal reactions to the disease. The reaction of patients to the onset of ILI in the early recovery period manifested itself in the form of depression and anxiety. There was a decrease in criticism and untidiness. The patients slept in their clothes, did not wash themselves for weeks, and did not change their underwear. When changing underwear, they could put on clean clothes for dirty ones. They did not notice the untidiness, they were offended by the request to wash, change the linen.

Patients expected a "miracle" from taking medications, denied the disease, showed irritability, emotional lability, moodiness, tearfulness. They expected a quick recovery, which did not occur, while their initiative and will decreased, depression and apathy intensified. The patients showed a decrease in the initiative for spontaneous activity.

When communicating with neighbors in the ward, the medical staff, the patients became obsessive, touchy, prone to "mental gum". After the onset of the disease, patients of working age again wanted to be able to work. The discrepancy between the body's capabilities and the patient's desire to eliminate the neurological deficit caused additional anxiety.

In relations with relatives, aggression, irritability increased, suspicion, tension, jealousy, the desire for relatives to be always there, constantly courting.

The level of anxiety in all patients of the study and control groups was initially rather high. The Hamilton HARS scale was used to assess anxiety. The level of anxiety in women was 35.26 ± 2.24 points, in men - 31.27 ± 2.08 points, with no significant difference in gender, with the maximum possible 56 points.

During the Mini - Mental State Examination, Short portable mental status questionnaire tests, no violations were detected either in the main group or in the control group.

In patients of the main group (with IUDC), changes in character were noted. This category of patients was characterized by apathy, general lethargy, weakness, and a narrowing of the range of interests. Depression was more latent in nature, anxiety, moodiness, viscosity persisted and intensified, fear of repeated cerebrovascular accident, elements of aggravation appeared. In patients, pathological traits of character were consolidated and strengthened, criticism, the pace of thinking, initiative decreased, viscosity, emotional lability, faintheartedness increased, "withdrawal into illness" arose. Patients became grumpy, intolerant of others, and quarreled with roommates. At first, they were afraid, and later they did not want to engage in self-care, household chores, therapeutic exercises, did not want to be restored to work. Carrying out duties in everyday life,

It was found that the patients of the control group had no changes in character, pace of thinking, decreased volitional qualities, initiative, criticism, and weakness.

In the process of neuropsychological examination, it was found that the patients of the main group and the control group did not have aphasias, violations of praxis, gnosis, but there was a slight decrease in mnesic functions in patients of the main group. 65 patients ($25.69 \pm 2.74\%$) of the main group complained of memory loss. Patients in the control group did not complain of memory loss. In this regard, a study of mechanical auditory-speech memory was carried out with plotting a memorization curve with 10 presentation of 10 words in all patients.

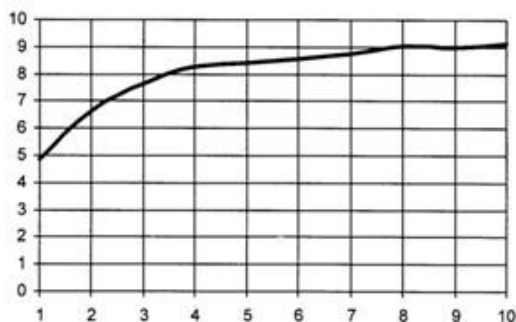
A study of the memorization process in patients with ILI revealed a decrease in the memorization limit. The study of mechanical auditory-speech memory in patients of the control group did not reveal any pathology. When examining the main group, a decrease in mnesic functions was observed, often patients who had memorized a certain group of words missed those words that they had reproduced earlier. According to the results of the examination, a rigid memory curve was determined. Memorizing the patients increased vegetative complaints - headache, facial flushing, general anxiety appeared.

Table 1 shows the average number of words retained when examining 65 patients, and Fig. 1 shows the increase in the number of words withheld.

Table 1

Average number of words retained when examining 65 patients, $M \pm m$

Number of presentations	The number of memorized words before treatment
one	4.87 ± 0.37
2	6.62 ± 0.41
3	7.64 ± 0.50
4	8.26 ± 0.43
five	8.41 ± 0.30
6	8.54 ± 0.33
7	8.74 ± 0.30
eight	9.03 ± 0.30
nine	9.00 ± 0.33
10	9.13 ± 0.27



Rice. one. Generalized "memory curve" in 65 patients

The patients of the main group were found to have mild and moderate disorders of the higher cortical functions.

In the process of autonomic resonance testing, it was found that the level of psychological stress in patients with IUD, the main group was 4.23 ± 0.38 , in patients of the control group it was 7.63 ± 0.82 degrees.

Summary

Thus, it was found that in patients with ILI in the recovery period

there was the presence of pathological personality reactions, mild and moderate disorders of higher cortical functions, impaired cognitive functions in the form of a decrease in mnestic functions, in particular, mechanical auditory-speech memory.

According to ART data, in patients of the control group with normal higher cortical functions, the level of psychological stress is two times higher than in the main group, where mild and moderate disorders of higher cortical functions were revealed.

Thus, in patients with a decrease in cognitive functions, the level of psychological load is 4.23 ± 0.38 degrees, which is one of the diagnostic signs of early cognitive impairment in patients with IUD.

The results of ART make it possible to include in the comprehensive program of primary examination of patients with IUD in the acute period, in the process of rehabilitation measures, the measurement of psychological stress, as one of the diagnostic signs of early cognitive impairment.

Literature

1. Boyko A.N., Sidorenko T.V., Kabanov A.A. Chronic cerebral ischemia (discirculatory encephalopathy) // CONSILIUM MEDICUM. - 2004. - T. 6. No. 8. - P. 598-601.

2. Vilensky B.S. Stroke: prevention, diagnosis and treatment. - SPb., 1999. -336

with.

3. Gotovsky Yu.V., Kosareva LB, Blinkov I.L., Samokhin A.V. Exogenous Bioresonance therapy with fixed frequencies: Methodical recommendations. - M.: IMEDIS, 2000. -- P. 96.

4. Gotovsky Yu.V., Kosareva LB Electro-acupuncture diagnostics and therapy with using the vegetative resonance test "IMEDIS-TEST +": Methodical recommendations. - M.: IMEDIS, 2002. -- S. 112.

5. Gotovsky Yu.V., Kosareva LB, Perov Yu.F. Resonant frequency diagnostics and therapy (additions, 2003): Methodical recommendations. - M.: IMEDIS, 2003. -- S. 27.

6. Gudkova V.V., Stakhovskaya L.V., Kirilchenko T.D., Kovrazhkina E.A., Chekneva N.S., Kvasova O. V., Petrova E. A. Ivanova G. E. Early rehabilitation after a stroke // CONSILIUMMEDICUM. - 2005. - T. 7. No. 8. - S. 692-696.

7. Damulin I.V. Mild cognitive impairment // CONSILIUMMEDICUM. - 2004. - T. 6. No. 2. - S. 149-153.

8. Zhulev N.M., Pustozerov V.G., Zhulev S.N. Cerebrovascular diseases. Prevention and treatment of strokes. - SPb.: "Nevsky dialect", 2002. - P. 384.

9. Zakharov V.V. Cognitive impairment. Age-related memory and attention disorders // CONSILIUMMEDICUM. - 2005. - T. 7. No. 8. - S. 697-701.

10. Kamchatov PR, Chugunov AV, Volovets SA, Umarova Kh.Ya. Brain disorders circulation // CONSILIUMMEDICUM. - 2005. - T. 7. No. 8. - S. 686-692.

11. Luria A.R. Higher cortical functions of a person. 3rd ed. - M.: Academic prospect, 2000. -- S. 512.

12. Sukhanov A.V., Pilipenko P.I. Diagnosis of cognitive impairment in neurological practice: guidelines. - Novosibirsk, 2003. -- S. 32.

13. Feigin V.L. Epidemiology of Stroke at the Turn of the Century: Lessons and Prospects. Modern approaches to the diagnosis, prevention and treatment of neurodegenerative diseases (dementia, stroke and Parkinson's disease) December 5-7, 2003 Collection of scientific papers. - Novosibirsk: Sibmedizdat, 2003. - pp. 3-7.

14. Vascular diseases of the nervous system / Ed. Shmidt E.V. - M.: 1975. -- S. 663.

