# FEATURES AND DYNAMICS OF DISORDERS OF COGNITIVE AND STATIC-LOCOMOTOR FUNCTIONS IN CHEM

Assistant Yuldosheva Naima Kudratovna Department of Anatomy, Clinical Anatomy Bukhara State Medical Institute

## ABSTRACT

Cerebrovascular diseases (CVDs), including cerebral stroke and chronic cerebral ischemia (dyscirculatory encephalopathy) are one of the leading causes of morbidity, mortality and disability of the population. According to WHO statistics, more than 15 million cases of stroke are registered annually in the world, of which more than 30% die within a year, more than 80% become disabled.

Vascular brain lesions are the most common cause of death in many countries of the world. In the structure of the total mortality of the population in Russia, stroke ranks second. More than 400 thousand cases of strokes are registered annually, the mortality rate of which reaches 35%. The primary disability after a stroke is 3.2 per 10% of the population, and no more than 20% of those who previously worked return to work. Disabled people due to cerebrovascular diseases make up 9.8% of the total contingent of disabled people among the population. Statistical data indicate that the growth of vascular diseases of the brain occurs due to an increase in the prevalence of chronic cerebral ischemia (CHEM).

In Uzbekistan, according to the data of Majidov N.M. (2000), Gafurov B.G. (2009) and others, the number of patients suffering from chronic forms of CVD is about 550-600 thousand.

This situation, on the one hand, may be due to the growth in the population of cardiovascular diseases - arterial hypertension, atherosclerosis, as well as their combinations, which are the main causes of the development of CHEM. On the other hand, the diagnosis of CHEM is made not only by neurologists, but also by therapists, cardiologists, general practitioners without taking into account the criteria for making this diagnosis.

**Keywords:** cerebral stroke, dyscirculatory encephalopathy, CHEM, cognitive changes, adaptation.

## INTRODUCTION

CHEM is a slowly progressive insufficiency of blood supply to the brain, leading to the development of multiple small-focal necrosis of brain tissue and causing an increasing violation of brain functions. Cerebral stroke usually develops against the background of the current chemo, i.e. it is a certain stage of cerebrovascular disease, therefore, the identification and treatment of such patients, especially in the early stages of the disease, is the most important direction in the prevention of cerebral stroke.

Cognitive impairments in CHEM, in the form of a decrease in memory, attention, intelligence, are characterized by a progressive course, reaching the level of dementia in the last stages. Dementia can be characterized as a combination of pronounced cognitive impairment, personality changes with a decrease in social and household adaptation. This circumstance

necessitates the early diagnosis of CN, which allows timely implementation of preventive measures aimed at preventing or slowing down the onset of social maladaptation.

The problem of dyscirculatory encephalopathy, from the point of view of the etiological moment, clinical polymorphism is quite well sanctified. But it should be noted that there are differences in the course and clinical manifestation of CHEM in the age and sexual aspect, which in practice is not given enough attention.

Despite the fact that various aspects of the main manifestations are being studied, information about the clinical and pathogenetic features of CHEM in men and women is scarce and contradictory. Meanwhile, the assessment of the uniqueness of the clinical picture and the course of CHEM in patients of different sexes allows the doctor to improve the diagnosis and plan a differentiated approach to treatment.

## OBJECTIVE

To study the features and dynamics of cognitive disorders in patients with chronic cerebral ischemia.

## **RESEARCH MATERIAL AND METHODS**

The study is based on the analysis of clinical, neurological and instrumental methods of examination of 57 patients who suffered an ischemic stroke in the hospital and outpatient at the Bukhara Regional Multidisciplinary Medical Center in 2022-2023. Of these, the average age of which was  $57.91 \pm 9.63$  years.

To assess the rate of cognitive impairment recovery after an ischemic stroke, a brief examination of the mental state (M. Folstein et al., 1975), a clock drawing test (2005) and a Schulte table (2003) were used. To assess daily activity, the Bartel scale was used to monitor the dynamics of recovery of motor disorders in patients (1998).

The results were processed on a personal computer using a biomedical research program using the traditional method of variation statistics. The organization and conduct of the study are based on the principles of evidence-based medicine.

Results of the study: chronic cerebral ischemia is a complication of heart disease, leading to tissue hypoperfusion. Today, many authors believe that the cause of chronic cerebral ischemia is a violation of the balance between adequate blood supply and the needs of the brain. According to literature data, risk factors for cerebral tissue hypoperfusion include arterial hypertension, vascular atherosclerosis, diabetes mellitus and other causes besides chronic heart diseases. In the study, 90% of group II and III patients were diagnosed with vascular atherosclerosis and diabetes mellitus in 11.3% and 16.7%, respectively.

Studies have shown the dependence of an increase in the frequency of clinical and neurological symptoms with an increase in the severity of the disease in patients with CMI.

Diffuse neurological symptoms were observed in group I patients with CMI. A slight symmetrical enhancement of foot reflexes in the muscles was observed in 19.5%, pathological reflexes of the palms - in 61%, slight instability in the Romberg pose - in 33%.

In clinical trials, there was an increase in focal neurological symptoms with an increase in the severity of CMI. In group II patients, pyramidal, cochleovestibular syndrome, coordination disorders were observed and ataxic syndrome was formed. Pyramid syndrome manifests itself

in 81% of cases of oral automatism reflex, with a decrease in convergence in 63%, anisoreflexion in 77% and pathological palm reflexes in 65% of cases. Coordination disorders were observed in 45% of cases, instability in the Romberg pose in 50% of cases and a state of falling was observed in 2% of cases. Ataxia syndrome is detected in 23% of patients.

In patients with CMI, there were decreases in various types of memory: short-term memory - 27 (50.3%) patients, logical memory - 16 (22.5%) patients, operative memory - 12 (16%) patients, visual memory - 2 (8.9%).) Associative memory was observed in 15 (13.2%) patients It is known that in addition to cognitive impairments that form the basis of the clinical picture of CHMI, patients with CHM develop and develop changes in the emotional sphere, which are mainly asthenic and anxiety-depressive changes.

#### CONCLUSIONS

As a result of the conducted research, data will be obtained on the features of neurological, cognitive, psychoemotional disorders in patients with CHEM. The results obtained will allow us to assess the role of pathogenetic mechanisms in the development of the identified differences. All these data will contribute to a more differentiated approach to the restorative treatment and prevention of CHEM in male and female patients.

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