Optimization of treatment of early neurological complications in cardioembolic stroke

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ABSTRACT

Stroke remains the most important medical and social problem due to its high prevalence among all cerebrovascular diseases, as well as a leading position in the structure of overall morbidity and mortality of the population.

This article examines new approaches to improving the effectiveness of management of patients in the acute period of CEI based on more accurate diagnosis, prediction of its course and outcomes, and optimization of neuroprotective therapy.

In Uzbekistan, the number of patients with brain stroke is quite large-about 40-45 thousand cases of brain stroke are registered annually.

Among the known subtypes of ischemic stroke, cardioembolic stroke (CEI) is particularly difficult to diagnose and treat, which is more severe than other subtypes.

This article examines new approaches to improving the efficiency of management of patients in the acute period of cardioembolic stroke, based on more accurate diagnosis, prediction of its course and outcomes, and optimization of neuroprotective therapy.

Key words: cardioembolic insulte, acute period, ischemia, neuroprotective therapy, optimization, overall morbidity, leading position, diagnosis, brain stroke, ischemic stroke.

INTRODUCTION

Cardiovascular embolism causes the development of 35-40% of all cases of ischemic stroke. The development of cardioembolic stroke is the most serious complication of cerebral ischemia. Stroke is a qualitatively special condition, being an integrated expression of a complex of complex metabolic, hemodynamic changes occurring in the brain at a certain stage of insufficiency of its blood supply [1,3,5]. The problem of cerebral stroke remains extremely relevant at the present time, which is determined by a significant frequency of its development, a high percentage of disability and mortality of patients [2]. The basis of acute ischemic damage to neurons in the development of a focus of cerebral infarction (IGM) is a complex cascade of interaction between the endothelium of the vascular wall, hemostatic factors, neurons and microglia. [5,8]. Oxygen starvation of tissues stimulates the production by endothelial cells of markers of endothelial dysfunction produced by endothelial cells of blood vessels, macrophages, neurons and neuroglia in response to hypoxic brain damage. The so-called "cell death genes" are activated, which are responsible for the development of apoptosis, or programmed cell death of the ischemic penumbra, as a result of which the volume of infarction increases. [15].

In AI, universal patterns of brain tissue response to reduced perfusion were established, which allowed us to formulate a statement about the dynamic nature and potential reversibility of cerebral ischemia and the need for urgent measures to restore blood flow and protect the brain from ischemic damage in the acute and acute period in CIE.

Since each of the neuroprotective drugs has to a certain extent a limited range of effects on

pathological processes in AI, it is relevant and justified to study the effectiveness of treating patients with a combination of several neurotropic agents [1,4].

Development of new approaches to improve the efficiency of management of patients in the acute period of CEI based on more accurate diagnosis, prediction of its course and outcomes, as well as optimization of neuroprotective therapy.

Materials and methods of research.

The study was conducted at the Bukhara Multidisciplinary Medical Center in the Department of Neurology. We examined and treated 160 patients aged 26 to 75 years with ischemic stroke who were admitted to the intensive care unit through the emergency medical care channel.

In the NRO, the Hunt - Hess scale and the Glasgow coma scale were used to objectify the severity of the patients 'condition and the severity of neurological deficits. The intensity of the pain syndrome was carried out according to a ten-point visual analog pain scale.

The diagnosis of Cardioembolic stroke was established on the basis of complaints, clinical criteria (neurological examination with the assessment of the severity of cerebral, meningeal, focal symptoms), palpation and auscultation of the study available sections of the carotid arteries in the neck, the data of additional research methods (laboratory blood tests, EKG, Echo-EG, Doppler ultrasound, TCD, skull x-ray, CT scan of the brain).

The study was based on 160 patients with CEI.Of these, 95 women (63.6 %),65 men (36.4%). The study was conducted at the Bukhara Multidisciplinary Medical Center in the Department of Neurology. All patients underwent a course of treatment for the purpose of neuroprotective therapy: cytoflavin 10 ml (on 5% glucose intravenously drip 1 time a day, gliatilin 1000 mg intravenously drip on saline solution 1 time a day. Cytoflavin and gliatilin were introduced in the first half of the day. From day 16 until discharge, patients continued to receive cytoflavin.

They also received basic therapy at the same time. Basic therapy of cardioembolic stroke included correction of blood pressure, maintenance of normovolemia, use of anticoagulants and antiplatelet agents.

Results and discussions.

The study was based on data from a prospective analysis of the clinical examination and treatment of 160 patients with CEI. By simple randomization, patients will be divided into the main and control groups that received different treatment regimens.

The criteria for inclusion of patients in the study were: AI, acute and acute periods, the ability to perform locomotor functions and psycho-neurological tests. All patients were conscious at the time of the examination and were available for verbal contact. The study was conducted with the consent of patients and did not contradict generally accepted ethical standards.

85 patients of the main group received basic and combined neuroprotective therapy. Basic therapy of ischemic stroke included correction of blood pressure, maintenance of normovolemia, control of glycemia and body temperature, according to indications, treatment of brain edema and nutritional support, use of anticoagulants and antiplatelet agents. Combined neuroprotective therapy consisted of the use of 10 ml of cytoflavin (succinic acid 1000 mg, inosine 200 mg, nicotinamide 100 mg, riboflavin mononucleotide sodium 20 mg) on 5% glucose intravenously drip 1 time per day; gliatilin 1000 mg intravenously drip on saline solution 1 time per day; actovegin 200 mg intravenously jet 1 time per day.

Cytoflavin and gliatilin were administered in the first half of the day, actovegin-in the second. From day 16 until discharge, patients continued to receive cytoflavin.

75 patients of the control group received standard treatment, which included a similar basic therapy to the main group, and throughout the inpatient period neuroprotective therapy with ethylmethylhydroxypyridine succinate (mexidol) or cytoflavin.

Indications for combined neuroprotective therapy CEI in the acute period were developed based on the analysis of its effectiveness

Conclusion.

Thus, the use of neuroprotective therapy in the acute period of cardioembolic stroke led to a decrease in disability and mortality of patients. As a result of the study, on the basis of a comprehensive system approach, the concept of the acute period of CEI as a complex system consisting of a complex of synergistic elements that allows predicting the course, complications and outcomes of the disease, including in the conditions of optimizing neuroprotective therapy, was developed. Clinical studies have shown that rapid screening and immediate therapy can improve clinical outcomes in stroke patients. Early detection of stroke and the use of neuroprotective treatments have improved patients 'lives.

Cognitive impairment in the acute period of primary ischemic stroke was present in 70.1% of patients, while in 33.0% of cases they had mild cognitive disorders, in 56.4% - moderate and in 10.6% - severe. In 73.4% of patients with ischemic stroke with cognitive impairment, hemispheric localization of brain infarction was observed. By the end of the follow-up year, cognitive deficits persisted in 70.2% of patients with ischemic stroke.

Patients in the early recovery period of the first hemispheric ischemic stroke are characterized by cognitive disorders of varying severity. At the same time, their main clinical features are a disorder of regulatory and neurodynamic processes, as well as a violation of visual-spatial functions, short-term memory and speech fluency. Primary mnestic disorders occur in some patients and may be caused by a concomitant neurodegenerative process.

Recovery of cognitive functions under the influence of therapy is more favorable in patients with a mild degree of neurological deficit, with right-sided localization of the focus of stroke, moderate severity of cognitive disorders, the absence of primary mnestic disorders, at the age of 60 years.

In the early recovery period of ischemic stroke in the central leads increased relative to the age norm, which is associated with a decrease in cognitive functions of patients. An increase in the central leads is an unfavorable prognostic sign of the restoration of regulatory and neurodynamic processes.

The use of cytoflavin in the early recovery period of ischemic stroke leads to improvement and normalization of cognitive processes, including regulatory and visual-spatial functions, short-term memory, semantic verbal fluency and contributes to social readaptation of patients.

The use of the drug ipidacrinin in the early recovery period of ischemic stroke has a pronounced positive effect on cognitive functions, including regulatory, neurodynamic, mnestic processes, which is combined with a decrease in latency in the central leads, and also leads to an increase in daily activity and independence of patients.

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