СТЕПЕНЬ НАРУШЕНИЯ КОГНИТИВНЫХ ФУНКЦИЙ В ЗАВИСИМОСТИ ОТ ЛОКАЛИЗАЦИИ ОЧАГА ИНСУЛЬТА

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THE DEGREE OF VIOLATION OF COGNITIVE FUNCTIONS DEPENDING ON THE LOCALIZATION OF THE STAGE OF THE INSULT.

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Annotation
This article presents the results of tests performed with patients with stroke, which show us the severity of the violation of cognitive functions. Stroke is an acute disorder of the cerebral circulation, which is one of the causes of disability and death of the patient. Each year, about 450,000 people suffer a stroke, more than half of whom remain disabled. Stroke can occur in the system of any arteries that supply blood to certain parts of the brain. This fact, help us to assume that the degree of severity of cognitive functions depends on the localization of the focus of the stroke. In this article, we will examine the results of our tests and the conclusions drawn on their basis.The purpose of the research work: to reveal the extent of disturbances of cognitive functions in patients who have suffered a stroke, depending on the localization of the lesion. Research methods used in the work: 1) Interrogation of patients with stroke, with the help of anxiety and depression scales, the Montreal scale, the brief scale of the assessment of mental status (MMSE). 2) Statistical processing of data. After analyzing the statistical data, we found out that the most pronounced violation of cognitive functions is present in people with localization of Stroke in the basin of the right (29.2) and left (25%) middle cerebral artery.

Key words: stroke, localization of the focus, tests.

Topicality of the article: Stroke is the second most frequent cause of death among the people all over the world and in modern Russia in particular. Each year, 450,000 people suffer a stroke. The death rate in Russia is 4 times higher than in the US and Canada. Among European countries, the death rate from cerebrovascular diseases in Russia is the highest. According to the All-Russian Center of Preventive Medicine, 25% of men and 39% of women die from cerebrovascular diseases in our country.

The incidence of stroke varies from 460 to 560 cases per 100,000 population. It should be emphasized the catastrophic consequences of ischemic stroke - up to 84-87% of patients die or remain disabled and only 16-13% of patients recover completely. But even among the surviving patients, 50% experience a second stroke in the next 5 years of life.

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Of all the strokes, 80% are ischemic strokes. Moreover, 95% of ischemic strokes and transient ischemic attacks (TIA) are associated with complications of embolic nature from plaques localized in the extracranial parts of the arterial system.

It should also be emphasized that only 15% of patients who had a stroke had a clear history of neurological symptoms in the history of TIA. In recent years, the incidence of ischemic strokes is 2-3 times the number of myocardial infarctions.

Stroke is an acute disorder of the cerebral circulation, the symptoms of which persist for more than one day.

There are three types of stroke: ischemic stroke, hemorrhagic stroke and subarachnoid hemorrhage.

Ischemic stroke most often develops with constriction or blockage of arteries - blood vessels, through which blood enters the brain. The cells of the brain die without getting the necessary oxygen and nutrients. This type of stroke is also called a cerebral infarction by analogy with myocardial infarction.

Causes:

• Atherosclerosis;

• Arterial hypertension;

• Induction;

• Osteochondrosis of the cervical site of the skeleton;

• Obesity;

• Diabetes;

• Alcohol abuse;

• Smoking;

• Use of oral contraceptives.

Hemorrhagic stroke often develops when the arteries break. Spilled blood permeates part of the brain, so this type of stroke is also called a hemorrhage to the brain. The most common hemorrhagic stroke occurs with people with arterial hypertension, and develops against a background of increased blood pressure. At some point, the vascular wall does not stand up to a sharp rise in blood and breaks. The rarer cause of hemorrhagic stroke is an aneurysm rupture.

Subarachnoid hemorrhage occurs as a result of rupture of the vessel and the ingress of blood into the subarachnoid space. Causes:

• Traumatic injuries: brain injuries, which diagnose brain contusion and damage to the arteries;

• Spontaneous damage to the integrity of the walls of blood vessels;

• Ruptures of aneurysms;

• Ruptures of arteriovenous malformations.

The brain catastrophe proceeds quickly enough: from a few minutes to several hours (less than a few days). Time after a stroke is conventionally divided into acute (up to 3 weeks), restorative (up to 1 year) and residual (over a year) periods. In the acute period, there are pathological processes (for example, brain edema), and processes that promote recovery (improving blood supply to areas surrounding the lesion, reducing the size of the hemorrhage, reducing the compression of the hematoma surrounding the brain substance).

Very rarely, the stroke is asymptomatic. If the symptoms of acute impairment of the cerebral circulation disappear within one day, then such cases are called transient ischemic attacks, or transient disorders of the cerebral circulation. When all the damaged functions are restored during the first three weeks, they speak of a "minor stroke".

Clinical findings of stroke consists of cerebral, meningeal (shell-type) and focal symptoms. Typical acute manifestation and rapid progression of the clinic. Usually, ischemic stroke has a slower development than hemorrhagic stroke. On the foreground from the onset of the disease are focal manifestations, cerebral symptoms, usually weak or moderately expressed, meningeal - are often absent. Hemorrhagic stroke develops more rapidly, debuts with cerebral manifestations, against which background the focal symptomatology appears and progressively increases. In the case of subarachnoid hemorrhage, the meningeal syndrome is typical.

General cerebral symptoms are presented by headache, vomiting and nausea, a disorder of consciousness (stunnedness, sopor, coma). Approximately in 1 out of 10 patients with hemorrhagic stroke there is epipriposition. The increase in cerebral edema or the volume of blood bleeding during hemorrhagic stroke leads to a sharp intracranial hypertension, mass effect and threatens the development of a dislocation syndrome with compression of the brain stem.

Focal manifestations depend on the location of the stroke. With stroke in the pool of carotid arteries, there is a central hemiparesis / hemiplegia - a decrease / total loss of muscle strength of the limbs of one side of the body, accompanied by an increase in muscle tone and the appearance of pathological stop signs. In the ipsilateral limbs, half of the face develops the paresis of the facial muscles, which is manifested by the skewing of the face, the lowering of the corner of the mouth, the smoothing of the nasolabial fold, the logophthalmus; when you try to smile or raise your eyebrows, the affected side of the face lags behind a healthy one or remains immobile at all. These motor changes occur in the limbs and half of the face of the contralateral lesion of the side. In the same limbs, the sensitivity decreases / falls out.

In case of stroke in the vertebrobasilar basin, dizziness, vestibular ataxia, diplopia, visual field defects, dysarthria, cerebellar ataxia, hearing disorders, oculomotor disorders, and dysphagia are noted. Quite often, there are alternating syndromes - a combination of ipsilateral stroke of the peripheral paresis

of the cranial nerves and the contralateral central hemiparesis. In lacunar stroke, hemiparesis or hemihypesthesia can be observed in isolation.

The results and their discussion: During the research work, we interviewed 96 people, whose average age was 65 years. Of these, 62.5% of women and 37.5% of men. In 83.3% of the patients surveyed, ischemic stroke was recorded, in the remaining 16.7% - hemorrhagic.

Most often, ONMC appeared in the basin of the right middle cerebral artery (29.2%) (Table 1).

Таблица 1

In the basin of which artery	**Frequency of occurrence**
Right anterior cerebral artery	12,5%
Left anterior cerebral artery	12,5%
Right middle cerebral artery	29,2%
Left middle cerebral artery	25%
Right posterior cerebral artery	12,5%
Repeated stroke in the basin of the left posterior cerebral artery	2,1%
Vertebrobasilar system	6,2%

Using the MMSE scale, it was revealed: in 37.5% of the respondents dementia of moderate severity; in 20.8% - pre-cognitive impairment; 20.8% have mild dementia; 12.5% have severe dementia; 8.4% have no cognitive impairment. The lowest score on this scale was scored by patients with localization of the lesion in the basin of the right and left posterior cerebral artery, as well as the left middle cerebral artery.

According to the alarm scale: 50% - no signs of anxiety; 16.6% - subclinical anxiety; 33,4% - clinically expressed anxiety. The greatest number of points on this scale was scored by patients with localization of the lesion in the basin of the left middle cerebral artery.

According to the scale of depression in 66.7% - the absence of signs of depression; 20.8% - subclinical depression; 12.5% - a clinically pronounced depression. The highest score on this scale was scored by patients with localization of the lesion in the basin of the right anterior cerebral artery, right middle cerebral artery and left posterior cerebral artery.

According to the Montreal scale, 8.4% of cognitive impairment was not detected; 91.6% had cognitive impairments of varying severity. The lowest score on this scale was scored by patients with localization of the lesion in the basin of the right and left posterior cerebral artery.

Conclusion: Based on all of the above, we can assume that the degree of violation of cognitive functions depends on the localization of the focus of the stroke.

After analyzing the statistical data, we found out that the most pronounced violation of cognitive functions is present in people with localization of ONMC in the basin of the right (29.2) and left (25%) middle cerebral artery.

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