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MEDICAL AND NEUROLOGICAL REHABILITATION OF PATIENTS AFTER ILLNESS

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Abstract The problem has been studied extremely insufficiently, and in the literature there are isolated works in which only general assessments of the dynamics of individual motor and emotional (depression) disorders in males and females who have had a cerebral stroke are given. These issues require further study, since Based on the above characteristics, the approaches to the tactics of rehabilitation treatment after stroke in males and females should be different. According to special studies, hemispheric functional differences are explained in terms of morphological and biochemical characteristics of the right and left hemispheres in persons of different sexes. At the same time, the issues of interhemispheric asymmetry and the features of the functional relationships of the hemispheres in cerebral strokes remain practically unexplored.

Keywords. acute cerebrovascular accident, ischemic stroke, patients.

The present study, taking into account its target direction and tasks, covered 214 patients with monitoring and IS (ischemic stroke), provided that this pathology led to disability. The sample consisted of 124 males (57.9%) and 90 females (42.1%).

At the time of hospitalization with a stroke, 65.4% were retired by age, 27.1% belonged to the middle age group, while 7.5% were represented by young people. Patients who submitted documents for examination at the (Medical and Social Expertise) of the ITU suffered AI less than 12 months ago - 83.2%, up to 2 years - 11.2% and up to 3 years - 59 5.6%.

ACVA (acute cerebrovascular accident) from the point of view of the clinical form was presented with a predominance of ischemia (82.2%), which was significantly tired in terms of the number of cases of hemorrhagic pathological process (17.8%).

Initially, the researcher formed 2 subgroups of patients undergoing IS, with obligatory representativeness of those from the past years, the depth of the lesion diagnosed in the acute period (the selection involved observation of moderate and severe patients), a type of scenario of circulatory disorders in the brain tissue, as well as on the side of the focus - right-brain and left-brain (107 patients). Based on the fact that the stroke clinic did not differ significantly in subgroups, the study considered the sample as a whole [1]. However, having identified the differences, due to which it is impossible to equalize the AI criteria, those were brought out separately. Subsequently, the sample was monitored for 2 more re-examinations of the disability assigned by the BMSE. As

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you know, persons whose work takes place under stress conditions, a fast pace of activity set in production, or requires tangible physical exertion, are more likely to suffer from AI.

Among the persons recognized as disabled, 32.7% continued to work after a stroke, in terms of gender, 65.7% were men, while there were fewer women - 34.3%.

Speaking about the field of activity and profession of post-stroke cerebral patients, we note that positions with intellectual load are occupied by 48.6%, light physical activity was acceptable for 22.9% of patients, while heavy physical labor is performed by 28.5%, while left and the right hemisphere is not statistically significant as a criterion for stroke.

The diagram in Figure 1 presents in a visual form a section of patients who underwent IS, according to the level of workload in labor activity in relative terms.

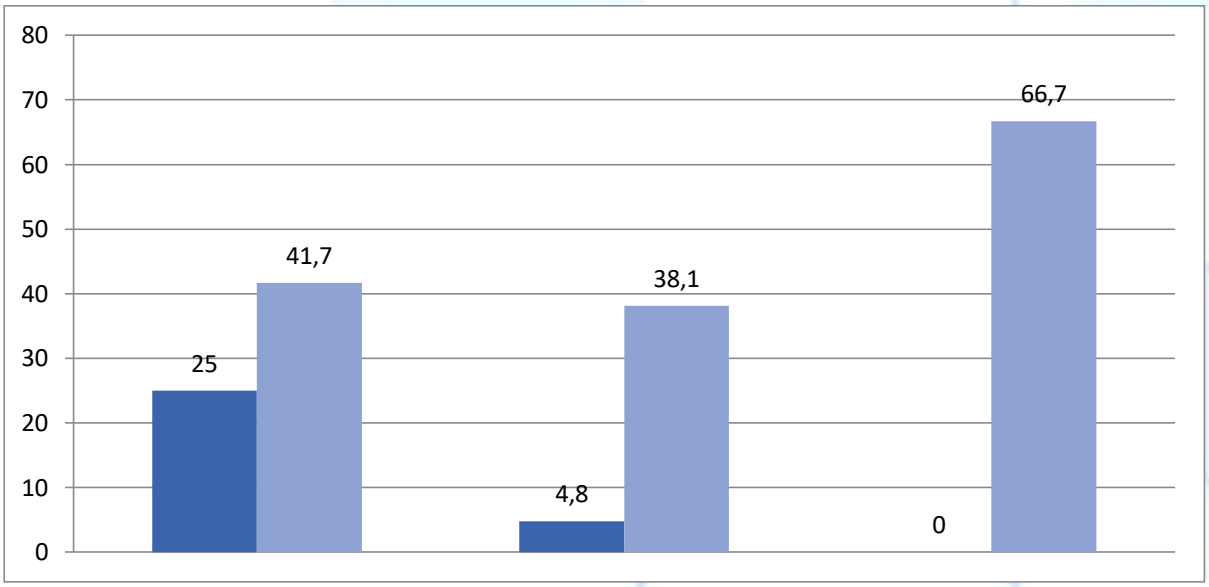

Figure 1 □ Analysis of the professional activity of men and women in accordance with the categories of severity in%

Analyzing the level of education of patients, we note that patients with bachelor's and master's degrees (28%), as well as those who have graduated from secondary educational institutions (26.2%), prevail, while 23.4% of persons with disabilities have specialist diplomas, and 22, 4% did not complete their studies for various reasons. This criterion was higher in persons with lesions of the left hemisphere), which was confirmed statistically significantly (P <0.001).

The diagram in Figure 2 forms an idea of a cross-section of the sample of patients by gender, depending on the education received.

After examining the diagram, we note that in the sample, men are numerically ahead of the female sex, provided that such a male patient has a bachelor's or master's degree, and his work belongs to the category of mental work. Work turned out to be

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unacceptable for 67.3% of patients, of which 55.6% were males and 44.4% were females.

Employment orientation was recorded in 9.4% of patients, while difficulties in identifying work orientation were shown by 26.4% of patients, indicating in the questionnaire that the desire to work is difficult to satisfy due to the vacancy offers by social protection agencies that are irrelevant for patients. High reliability (P <0.001) was recorded in this subgroup in relation to patients who suffered from the right hemisphere.

Based on the etiological prerequisites of IS, we point out that in the sample of persons whose brain was affected by ischemic stroke, 44.3% were in a stroke state with a background excess of blood pressure, while atherosclerotic vascular lesions occurred in 26.1% of patients, these pathologies were combined in 18.2% of patients. Uncontrolled hyperglycemia was found in 8% and overweight in 3.4%. In the sample, stroke occurred due to AF in 21.6% of cases, while 3.4% suffered an acute MV disorder in parallel with myocardial infarction, and 0.46% - due to a puncture wound in the common carotid artery, which caused a large blood loss [2].

Among the etiology factors provoking IS, arterial hypertension dominated in the group of patients in whom blood circulation was impaired in the right hemisphere (P <0.01), since patients did not follow the doctor's prescriptions, refusing to control blood pressure and treat hypertension.

Speaking about the etiology of IS, we emphasize the priority of hypertension, since the pressure exceeds the norm in 47.4% of patients, hypertension and atherosclerotic changes in the arteries were noted in 36.8%, while arterial aneurysms burst in 10.5% of patients, while 0.46 % suffered a stroke due to a complicated course of aplastic anemia and a sharp deficiency of platelets.

Traumatic damage to the nervous tissue due to TBI took place according to the anamnesis in 4 patients, while ischemia was recorded in 3 patients, while 1 suffered from a hemorrhagic stroke.

The diverse pathogenesis of IS and its types became the reason for the study of ischemia in the context: in 55.7% of patients, stroke developed according to the atherothrombotic scenario, while in 21.6% it proceeded as cardioembolic, and 19.3% and 3.4% of patients underwent lacunar and hemodynamic.

Disability was assigned to persons with hypertension and the following pathological changes: in 5.3% of the tissues were impregnated with plasma and blood fractions, in 94.7% of the brain tissue a hematoma was formed, while the breakthrough of blood outflow into the cisterns was noted in 31.6%, among which significantly more often prevailed by persons who suffered from the right hemisphere (P <0.01).

The clinic has a diverse picture, correlated with the vasculature for ischemic MV disorders, while it depends on the diffusion of the focus in the case of hemorrhagic lesions (Figures 3 and 4).

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Figure 3 Distribution of examined patients with ischemic stroke, taking into account topical characteristics in%

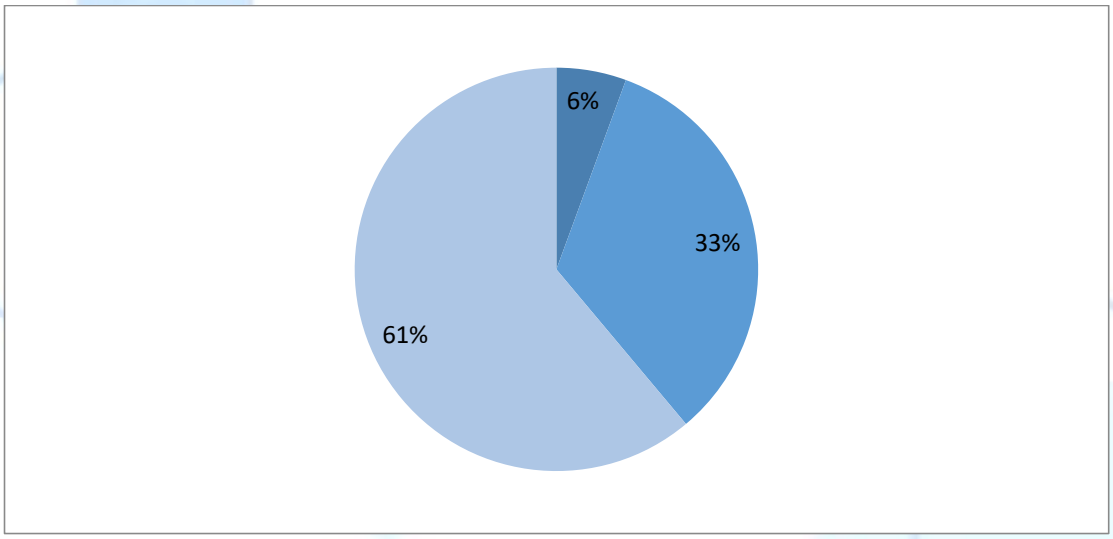

Figure 4 □ Distribution of examined patients with hemorrhagic stroke, taking into account topical characteristics in%

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At the severity of stroke, some patients show an unexpected recovery of failed body functions, since the brain is a highly organized structure with a high potential for restructuring to work in a position of impaired blood flow.

The human central nervous system compensates for the affected functions using the following mechanisms:

□ reorganizes the role and participation of the functional center with the pathological process in the general life of the organism;

□ distributes influence and dominants at different levels of the system;

□ reorganizes the structural and functional portfolio by organs and systems;

□ actualizes the available reserves of those functions that are performed by the systems of the brain.

However, not only the reorganization and reparation of functions after a stroke that has happened are significant for the patient, since the success and level of recovery correlates with active measures to eliminate edema, as well as to increase blood flow in the areas adjacent to the focus (the sector in which ischemia has just begun to manifest itself - penumbra, and neuronal damage is reversible) [3].

So, the rehabilitation of a stroke patient to a normal life, which does not allow the entire spectrum of functions of the cerebral hemispheres to be lost, requires the earliest possible therapeutic intervention, the duration of which is limited by the “window of therapeutic opportunities”. This concept accurately characterizes the short period during which the stroke that has arisen, provided that the patient has received a course of

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adequate prescriptions, will reduce the number of dead neurons and will not narrow the patient's functions and activity. Clinicians believe that the interval is 3-6 hours.

The interval that elapsed from the first clinical symptoms of stroke to arrival at the hospital for hospitalization is disclosed in Table 2.

Table 2 Time of hospitalization of patients with cerebral stroke, with lesions of the right and left hemispheres

Interval	Absolutely number of patients	Specific weight (%)
Less than 3 hours	128	59,8
Less than 6 hours	33	15,4
Less than 24 hours	38 24y. – 14y.	17,8
Exceeds 24 hours	15 10l. – 5y.	7

Note: l. - left; p. - right.

It is positive that the sample is represented in 75.2% of cases by patients who arrived at the hospital in the time range of the "window of effective therapy", due to which the functional capabilities of the brain were restored as fully and in a short time as possible. It is noteworthy that stroke in the left hemisphere was less alarming, which caused delays in 34 out of 65 patients who delayed hospitalization by more than 6 hours from the onset of clinical manifestations.

The diagram in Figure 5 reveals the gradation of patients who partially rehabilitated motor deficiencies caused by stroke, reflecting the ratio of the periodization of disorders and the patient's age.

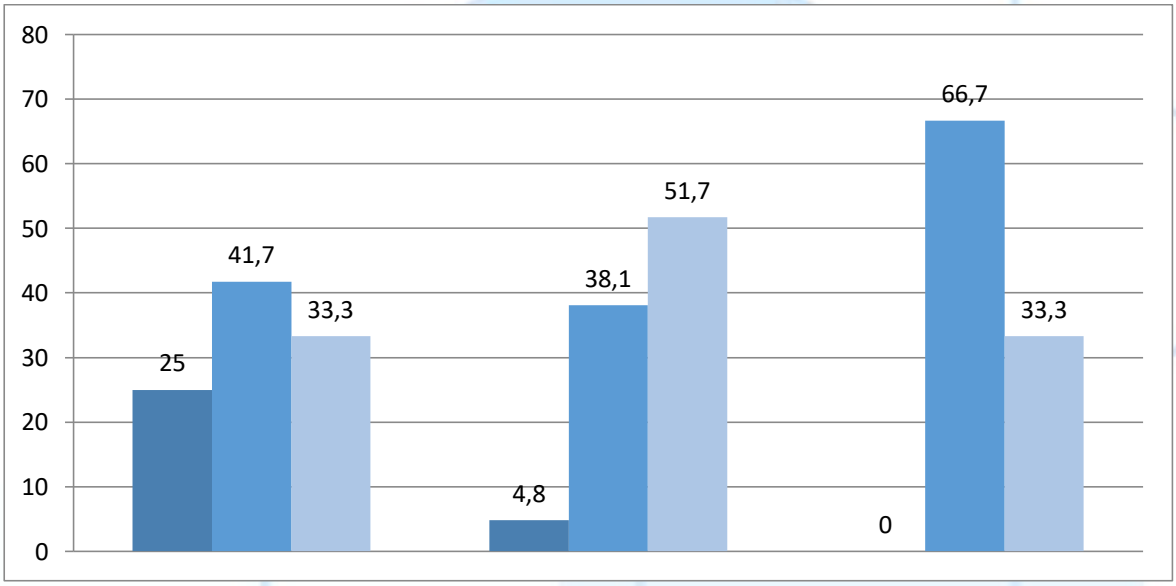

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Figure 5 Patients with partial recovery of a motor defect in different periods of stroke, taking into account age in%

This indicator does not provide a statistically reliable difference to describe the differences in the condition of persons who have suffered from the right or left hemisphere. However, the sample contains people with disabilities whose motility is severely impaired to hemiplegia (24 persons), and their number reaches 25% of stroke patients who partially acquired impaired functions of statodynamics in different periods of stroke. It is noteworthy that at the severity of the stroke, the renewal of muscle strength in the limb, the innervation of which was impaired, took place only in 0.46% of patients (1 person), and it was also extremely insignificant.

The period of early recovery after stroke showed a decrease in the symptoms of focal lesions in 22 patients (91.7%), while the muscles resumed the force of contraction by 1 point in 16 (72.7%), while an increase of 2 points took place in 6 (27 , 3%) of patients, and showed no difference in the right and left hemispheres.

The characteristic of cerebral stroke predetermines the rate of development and the volume of rehabilitation of impaired capabilities. The study showed that focal symptoms disappear faster with GI ahead of ischemic GI (52.6% and 43.2%).

Recovery is accelerated if the patient is in a comfortable home after discharge from the hospital, and relatives support him during the treatment process in the hospital. In the sample, 48.9% of the disabled had a life partner, while children or parents lived together with 84.4% of patients. Speaking about everyday life, we note that in 91.1% of cases, housing was in a satisfactory condition. 15.5% of patients declared themselves lonely, while 57.1% of them lived in comfortable houses or apartments.

The unfavorable nature of the prognosis increases if the patient's functions have suffered against the background of diseases accompanying stroke or being its complications, both cerebral and extracerebral.

In the sample, 28 patients suffered from diseases of the cardio-respiratory system, due to which they experienced circulatory insufficiency of stage II (in the right hemisphere, a stroke occurred in 5 patients). At the severity of the stroke, the heart muscle was affected by a heart attack in 0.46%, while 0.92% of patients experienced obliteration of the vascular bed of the lower extremities due to atherosclerosis, which caused the gangrenous process.

Table 3 makes it possible to rank patients in whom QI proceeded against the background of complications, as well as to show the absolute and relative values. The tabular data do not show a significant difference on the side of the affected hemisphere, depending on the clinic of vasospasm accompanying GI (3 - with a stroke in the right hemisphere, 1 - with a stroke in the left hemisphere), as well as for pneumonia caused by a bacterial pathogen (24 cases of stroke on the right and 6 cases of stroke on the left),

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or trophic lesions of tissues compressed when lying down (17 and 7 patients in whom the right and left brain is affected, respectively), inflammation in the urinary system (occurred in 25 and 9 persons, stroke in which it occurred in the right hemisphere and left hemispheric regions) [4]. The reliability of the indicated indicators did not rise above P <0.01, which should be especially emphasized for extracerebral conditions complicating hemorrhagic stroke.

The MRI protocols performed to diagnose the condition of patients before the examination of BMSE showed that in the sample of 178 patients (83.2%), there are lesions in the GM that arose more than 4 months ago, in which the formation of cysts and neuroglia began, as well as cerebral tissue of the hemispheres. undergoes cortical atrophy and subatrophy.

Table 3 Complications of cerebral stroke

Cerebral complications of stroke - in% and absolute numbers		
	Ischemic 100%-188чел.	Hemorrhagic 100% - 38чел.
Edema of the hemispheres	14,8% - 26чел.	73,7% - 28чел.
Hemorrhage in the infarction zone	1,1% -2чел.	
Breakthrough of blood into the cisterns of the brain		42,2% - 16чел.
Vasospasm as a factor of secondary ischemia of cerebral tissues		10,5% - 4чел. (3 с. – 1 г.)
Extracerebral complications		
Inflammation of the lungs caused by a bacterial pathogen	17,0% - 30чел. (24 п. – 6 л.)	36,8% - 14чел.
Disorders of soft tissue trophies	13,6% - 24чел. (17 п. – 7 л.)	21,1% - 8чел.
Inflammatory processes in the genitourinary system	19,3% - 34чел. (25 п. – 9 л.)	36,8% - 14чел.

Note: l. - left; p. - right.

The MRI protocol was obtained for some part of the sample: in 105 and 73 people, in whom a stroke struck the left and right hemispheres, respectively, since in some hospitals, diagnostic equipment and diagnostic doctors are scarce as a human resource.

Examination by an ophthalmologist showed that the vessels of the eye dan were affected due to high blood pressure - 110 (51.4%) patients (more often it was detected in persons in whom a stroke struck the right hemisphere - 72, while with a lesion of the left it was detected in 38 cases), and also angiosclerotic changes - 74 representatives of the sample (34.6%), although for this pathology the subgroups did not show any difference.

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