STROKE AS A MEDICAL AND PSYCHOLOGICAL PROBLEM: SPEECH AND COGNITIVE CONSEQUENCES

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Abstract: *Stroke is one of the leading causes of mortality and long-term disability worldwide, particularly affecting adults in middle and older age. According to the World Health Organization, stroke ranks third among global causes of death and results in millions of new cases annually, with a significant proportion of survivors experiencing permanent disability. One of the most common consequences of stroke is speech impairment, including aphasia, dysarthria, and related cognitive-communicative disorders, which affect approximately one-third of patients with focal brain lesions.*

Keywords: *Stroke, aphasia, speech disorders, cognitive impairment, neuropsychology, rehabilitation, psychological support, social adaptation, A.R. Luria, quality of life.*

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Stroke is one of the most significant medical and social problems of modern healthcare due to its high prevalence, mortality rate, and long-term consequences. It is a leading cause of disability worldwide and often results in persistent neurological and cognitive impairments that significantly reduce patients' quality of life. Among the most common post-stroke complications are speech and language disorders, which occur as a result of focal brain damage.

Speech impairments such as aphasia, dysarthria, and related cognitive-communicative disturbances are observed in a considerable proportion of stroke survivors. These disorders not only limit verbal communication but also negatively affect emotional state, social interaction, and psychological well-

being of patients. As speech is closely connected with cognitive processes such as memory, thinking, perception, and attention, its impairment leads to complex disruptions in overall mental functioning.

The significance of the stroke problem is not limited to high morbidity and mortality. It is the leading cause of primary disability worldwide [1,2]. About one-third of stroke patients suffer from speech disorders due to focal brain damage. Types of speech disorders include aphasia, dysarthria, and others.

In scientific literature, both medical and psychological, there are many studies devoted to the determinants of physical, psychological, and social recovery of stroke patients, prevention of possible consequences of the disease, prevention of secondary complications, and disability. Scientists particularly emphasize the importance of family psychological climate, characteristics of the patient's relationships with significant others, professional activity, and personal engagement of the patient.

As is known, stroke with right-hemispheric involvement is accompanied by speech disorders. Loss or partial loss of speech leads to isolation of the patient from the environment and a decrease or loss of communication with it. A patient with speech impairments cannot express needs and desires or report their condition, which significantly reduces quality of life, especially its psychological and social components.

The study of aphasia, i.e., speech disorders in stroke, was conducted by the great Russian psychologist A.R. Luria, who developed not only diagnostic methods for these disorders but also approaches to speech restoration, and demonstrated the relationship between speech impairments and cognitive abilities of stroke patients. Further application of his methods by followers and other scientists worldwide has made it possible to restore the general physical and psychosocial status of stroke patients. However, new aspects of rehabilitation remain insufficiently studied. Many researchers note difficulties

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in working with patients due to the severity of their condition, and speech absence or impairment complicates diagnostic procedures, while restoration of physical abilities, psychological status, and speech skills requires a long time.

At the same time, in our opinion, the patient's environment plays a particularly important role in stroke rehabilitation. The environment is also affected by the illness situation, requiring special care for the patient, patience, and resilience from relatives, which often limits their own freedom as well.

As is known, speech enables a person to express thoughts, internal experiences, and emotional states. It is connected with cognitive processes such as perception, memory, thinking, and attention. Speech is one of the most complex physiological processes requiring the coordinated functioning of visual, auditory, motor, and kinesthetic analyzers. Speech disorders lead to communication difficulties, social deprivation, and often psychological and social maladjustment. For physicians and nursing staff, communication problems also arise, affecting treatment and recovery outcomes. Therefore, timely diagnosis and assistance in various speech disorders are considered important components of effective rehabilitation.

It should be noted that the term "aphasia" was introduced by the French physician Armand Trousseau in 1864. In aphasia, disturbances in oral speech, speech comprehension, reading, and writing are observed. Many authors note that true aphasia is characterized by relatively preserved intellectual abilities and the absence of severe mental disorders.

As is known, there are different types of aphasia. Motor aphasia develops when the posterior parts of the frontal lobe (Broca's area) are damaged and appears suddenly and rapidly. This type leads to slowed speech production. Sensory aphasia is diagnosed when Wernicke's area is affected and is associated with impairment of the left temporal lobe. The patient may speak fluently, but due to impaired speech comprehension, communication difficulties arise. Medical studies show that different types of aphasia may

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coexist in one patient. Total aphasia is the most severe form and affects multiple brain regions. As a result, complex speech deficits occur, including impaired speech initiation, phonemic hearing, and sound structure of speech, significantly reducing communication abilities and leading to reduced quality of life and social maladjustment.

The specific work of a psychologist with this category of patients involves not only identifying the patient's attitude toward the illness and motivation for recovery but also considering psychosocial aspects of rehabilitation, including the attitudes of relatives, interactions between the patient and family, and cooperation with medical staff. Not only active participation of the patient but also the readiness of relatives to cooperate in rehabilitation is important.

We believe that, in addition to proper medical intervention, psychological work plays a major role in speech restoration. Unfortunately, there are currently very few psychologists specializing in this field. In our opinion, methods for diagnosing speech disorders, especially correction techniques, are insufficiently developed. Despite existing methodologies, diagnosis of aphasia types in stroke patients remains problematic.

Our experience shows that regular psychological work with stroke patients with speech disorders produces positive results. However, it is important to understand that patients require psychological support for recovery. We have found that speech recovery is influenced by family relationships, the microclimate of the environment, and the patient's professional status. It has been established that there is a direct correlation between recovery of dialogic speech and improvement in the patient's social role ($r = -0.26$; $p < 0.05$). A statistically significant relationship was also found between recovery of dialogic speech and improvement in interpersonal relationships ($r = -0.143$; $p < 0.05$).

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Timely psychological assistance contributes to full recovery after stroke and improves the patient's quality of life, including social adaptation.

Stroke remains a major medical and social issue due to its high prevalence, mortality, and long-term disability outcomes. One of the most significant consequences of stroke is speech impairment, particularly aphasia, which severely affects patients' communication abilities, emotional well-being, and social functioning. The reviewed data demonstrate that speech disorders are closely linked with cognitive deficits and overall psychological maladjustment.

The analysis highlights that effective rehabilitation of stroke patients requires not only medical treatment but also comprehensive psychological support. Family environment, social relationships, and the patient's motivation play an important role in the recovery process. The contribution of psychological interventions significantly improves speech restoration and facilitates better social adaptation.

Thus, an integrated approach combining neurological treatment with psychological and social rehabilitation is essential for improving recovery outcomes and enhancing the quality of life of stroke patients.

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