THEORETICAL INFORMATION ABOUT APHASIA AND ITS TYPES. RESULTS OF EXPERIMENT WITH BROCA'S APHASIA

Rakhshona Muslikhiddinova
Navoi State Pedagogical Institute
muslixiddinovaraxshona@gmail.com

ABSTRACT

Preliminary information about the term “aphasia” and its originwhich is the subject of study of neurolinguistics and therefore, based on this information, reasonable information about the results of the experiment is given.

Keywords: aphasia, cerebral hemispheres, stroke, thrombus, speech disorder

INTRODUCTION

Aphasia is a language disorder that occurs as a result of brain injury after the formation of language skills in a person. [1] Aphasia, which is the object of study in the field of neurolinguistics, is considered a disease caused mainly by problems with the brain. In particular, vascular diseases, traumatic brain injury, neoplasms, infections, degenerative conditions, etiologies of nervous system pathologies - these five factors can cause aphasia. [2] Aphasia is considered an object of study of which subjects? Aphasia is a concept in the center of neurology, psychology, speech therapy, and neurolinguistics. The term "aphasia" first entered the science in the form of "Aphenemia" as a result of research by P. Broca, who lived in 1824-1880, and later the term "aphasia" was proposed by Armand Trousseau and this name was chosen.

Literature analysis.

Disruption of the structural-semantic (internal) type of speech is indicated by two types: alalia and aphasia:

1. Alalia - loss of speech or underdevelopment of the speech zones in the cerebral cortex as a result of damage to the organ in the womb of the child or during the early development.
2. Aphasia - complete or partial loss of speech due to damage to a specific part of the brain. Synonyms: speech disorder, loss. [3]

So, it is known that aphasia is the basis of speech disorder caused by factors affecting the brain. As a result of studies, the division of aphasia into types is different by many scientists. We chose the following. Aphasia is divided into the following types:

1. Global aphasia is the most common type. Patients can produce only a few typical words. They have little or no understanding of spoken language. However, they may have fully preserved cognitive and intellectual abilities that are not related to language or speech.
2. Broca's aphasia - limited fluency or expressive aphasia, also called agrammatic. Patients have difficulty speaking fluently. Because they can only say a few words at a time, their speech is characterized by a lot of pauses. They can usually understand speech well and retain the ability to read, but their writing skills may be limited.
3. Mixed Disfluent Aphasia - Patients with this type of aphasia have limited and labored speech, similar to patients with Broca's aphasia. However, their comprehension skills are limited.
4. Wernicke's aphasia is called fluent or receptive aphasia. The reason why it is called fluency is that the person has difficulty in creating speech despite the ability to understand, but the connections may be that the logic of the speech is broken. Although the ability to read and write is small, the ability to understand is likely to be lost.
5. Anomic aphasia - the patient cannot find the right words to speak and they speak very slurred.
6. Primary progressive aphasia - in this type, the person gradually loses the ability to use language. While other aphasias are caused by vascular permeability disorders, thrombi, this type is caused by central nervous system dysfunction or death (neurodegenerative), such as Alzheimer's disease. [4]

Aphasia has the following types depending on where it occurs in the brain.

Table 1

Vascular territory	**Type of aphasia**
Main trunk of the left middle cerebral artery	Global aphasia
Orbitofrontal, pre-rolandic	Broca aphasia
Rolandic	Dysarthria
Parietal anterior	Conduction aphasia
Posterior parietal, angular	Sensory extrasylvian
Temporal	Wernicke aphasia
Lenticulostriate	Dysarthria, subcortical aphasia
Anterior cerebral artery	Aphasia of the supplementary, motor area
Posterior cerebral artery	Alexia w/o agraphia [2]

RESULTS AND DISCUSSION

The condition of aphasia differs between different ages and sexes, and therefore also has differences in the level of morbidity. There are different stages of brain damage, and there are two types of stroke: stroke and microstroke. . This paper was originally selected for laboratory training with one participant with microstroke as it was the author's first in-depth study in this area. At the same time, one healthy man and two women were selected.

Table 2

No	Participant Name (Initials)	Gender	With/without symptoms	Age	How long ago
1	E.A	male	yes	82	4 years ago
2	Q.O	male	No	55	-
3	E.D	female	No	54	-
4	D.M	female	no	77	-

Speech condition was studied with a person suffering from aphasia mainly by answering free questions. Because this participant had a microstroke, it is possible not to notice the big pauses in the speech and the big difference between them and the healthy participants in the communication process. But the table below shows how many words they use in a maximum sentence (regardless of whether it is a complete or incomplete sentence):

Table 3

Participant	With/without symptoms	The number of words in a sentence
E.A	yes	3-4
Q.O	No	7-10
E.D	No	10-15
D.M	No	8-12

Persons suffering from agrammatic aphasia remember words of the verb group without difficulty during the speech process, but words of the verb group [5] Extracting and analyzing a text of about 200 words yielded the following results.

Table 4

	E.A	Q.O	D.M	E.D
Noun	50 -60	50-60	60-70	60-70
Verb	10-20	60-70	80-100	80-100

Auxiliary words	2-3	10-20	20-30	15-20
Pronouns	40-50	10-20	10-20	10-20

Also, during the laboratory, we witnessed that the participant who experienced a brain injury mistakenly uses the moods and tenses of the verb phrase. Also, the participant made a mistake in the sentences of the following verbs. (We cannot fully explain the Uzbek dialect in English)

-It's coming now

-Tell me when you see it.

-Pleasure will come

CONCLUSION

During the experiment, the main participant's age and disease state were practiced with short questions, and the result was that the participant mainly avoided the use of verb phrases, instead using too many inappropriate demonstrative pronouns. encountered such situations. However, it was found that the general speech condition was not seriously damaged, the participant's mental and visual comprehension ability, the process of reacting through words was not damaged, and Broca's aphasia was evident in some places.

In this article, it was explained that the laboratories were conducted within the framework of practical linguistics with participants of Uzbek nationality, whose language is Uzbek, with and without aphasia.

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