

PEECH DISTURBANCIES IN HEMORRHAGIC STROKE OF THE DOMINANT HEMISPHERE

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The study of speech deficiencies in hemorrhagic cerebral insults of the dominant hemisphere offers the opportunity to discuss speech pathology in lesions of the deep subcortical brain structures (1,2,5,6).

The main purpose of this study is to follow-up the dynamic changes of speech disorders of hemorrhagic strokes of the left hemisphere in the early recovery period and their type as compared to the localization of the haematoma.

Fifteen patients have been assessed (8 men and 7 women) by a standard neuropsychological test, CT and neurological investigation. In the acute recovery period (ARP) (1st-3rd day) 86% of the patients have been assessed, in the early recovery period (ERP) (3rd day-2nd month) - 100% and in the late recovery period (LRP) (after the 2nd month) - 36%. The type of aphatic lesions is defined after the classification of Luria (1969) and their class is determined as mild, moderate and severe.

There are certain dynamic changes in aphatic lesions in the various recovery periods. Two patients showed dysarthria and non-modulated speech. The localization of haematoma in the latter is respectively in the thalamus and deep parietally. Dysarthria cases in thalamic hemorrhage of this type are reported by Schuster (5).

Table 1 presents the variety of speech disorders in the temporal lobe where the number of cases of moderate and severe aphasia is the greatest one.

Localization of lesion	Type of aphasia					Total
	ETA	ATA	Type 1	Type 2	Dysarthria	
L. frontalis	1					1
L. temporalis	1	4	1	1		7
L. parietalis			1		1	2
L. occipitalis				1		1
Basal ganglia	3				1	4
Total	5	4	2	2	2	15

The low number of cases in the other lobes is not enough to allow reliable statistical interpretation. In the acute recovery period an equally severe lesion of the motor and sensory speech functions was observed and a rapid and significant recovery as well. The increased volume of the hemorrhagic zone and its surface distribution increase the severity of aphasia (2-4). The lesions of the same brain structures in various patients may cause aphasia of different types and severity. In lesions of the deep subcortical structures major opportunity for recovery of the speech functions are preserved (3). By the same location of cerebral hemorrhage rare dysarthric phenomena may also be observed (5). The correlation between the CT and neuropsychological assessment in aphasia shows contradictory opportunities for type definition of aphasia and can bear a prognostic value for recovery (6).

We conclude that :

1. The localization of the haematoma does not affect the type of aphatic disorders.

2. The lesion of the deep subcortical structures may lead to aphatic disorders presented as fragmented speech, lowered speech initiative and possible signs of dysarthria.

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