Jaargang 23, Supplement 1, september 2018 Stem-, Spraak- en Taalpathologie

19th International Science of Aphasia Conference - Venice

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Executive functions in patients with Broca's aphasia

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Introduction

Since the executive functions allow a person to successfully perform cognitive activities, including the production and understanding of language, there is an increasing awareness of the need for the research the relationship between executive functions and language disorders. In view of this, the number of studies focused on testing executive functions in aphasia has been published. Symptoms of the impairment of executive functions are described in different type of aphasia, but the nature of these disorders is still unexplored. In this paper, we have examined the executive functions in patients with Broca's aphasia.

Methods

Participants

A total of 17 patients with Broca's aphasia, aged 49 to 74 years (M = 63,45; SD= 7,45) participated in this study. All patients were right-handed, with a single left hemisphere CVA; they were at least six months post-onset without visual deficits and/or dementia. The control group consisted of 18 subjects, from 48 to 75 years which are equated according to their age with the aphasia group.

Instruments

The Boston Diagnostic Aphasia Examination (Goodglass, Kaplan Barresi, 2001) was used for diagnosis of presence the Broca's aphasia. In the assessment of the executive functions, the tests of phonemic and semantic verbal fluency, The Stroop test and Trail-Making Test - part A and part B were used.

Results

The obtained results showed significant differences between patients with Broca's aphasia (BA) and the control group. Patients with BA produced a significantly lower number of words on the phonemic and the semantic fluency task. The results of the Stroop test also showed differences between the patients with BA and the control group: patients with BA needed significantly more time to read the word list and to name the color-words. In addition, subjects with BA made significantly more errors on the Stroop test. The results on the Trail Making Test showed that patients with BA needed significantly more time to perform the part A and part B of the test.

Poster session 2

Discussion

Our results showed that patients with Broca's aphasia have deficits in the all components of the executive functions. The deficits of executive functions are interpreted in the relation to language deficits. The assessment of executive functions can provide additional information in understanding of the nature of some communication difficulties in Broca's aphasia and can assist in patient management.

References

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Acknowledgement

This study was done as part of the project "The evaluation of treatment of acquired speech and language disorders" (Project No 179068) funded by the Ministry of Education, Science and Technological Development of Republic of Serbia.

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