DIAGNOSTIC APPLICATION OF COGNITIVE EVENT-RELATED POTENTIALS IN PARKINSON'S DISEASE

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Idiopathic Parkinson's disease is a chronic, progressive, neurodegenerative disorder that affects every hundredth person in the population over the age of 60. In addition to the well-known motor signs of the disease (bradykinesia, rigidity and tremor), in the later stages, there is the development of cognitive disorders and the manifestation of the full clinical picture of dementia. An important prerequisite for adequate cognitive functioning is preserved attention. Early recognition of cognitive disorders is very important, not only for medical reasons but also for possible social problems.

The aim of the work was to determine the diagnostic significance of cognitive event-related potentials (ERPs) for the detection of attention disorders in different stages of Parkinson's disease.

Using the neurophysiological method of cognitive ERPs, 45 patients of both sexes suffering from idiopathic Parkinson's disease, aged from 55 to 76 years, were examined.

Although all registered latencies in our study were within physiological values, there is a statistically significant difference in the mean latency values of the N2 and P3 waves between control subjects and Parkinsonian patients. Regardless of the fact that Parkinsonian patients do not have clear clinical signs of dementia, their conscious recognition of the resulting change in a series of stimuli takes longer compared to healthy subjects of the control group.

Based on the results obtained so far, it can be concluded that the mentioned components of ERPs, especially the P3 wave, can be a useful diagnostic tool in the validation of cognitive disorders in non-demented Parkinsonian patients.

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