EARLY DIAGNOSTIC AND NEUROPSYCHOLOGICAL MONITORING OF TREMOR FORM OF PARKINSON’S DISEASE


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Introduction: In relation to the presence of tremor in clinical picture there are two forms of Parkinson’s disease: tremor (hyperkinetic) form, characterized by tremor and akinetic-rigid (hypokinetic) form, characterized by bradikinesia and rigor.

According to electromyographic characteristics we can differ tremors of organic type (consequence of nerve structure damage) and functional tremors (non-organic).

Tremor form advances slower and is less often accompanied by dementia.

Aims: To estimate the degree of cognitive disorder by means of neurophysiological tests and to differentiate organic from functional tremor by means of electromiographic research in Parkinson’s disease patients.

Methods: The researched group of 60 patients with tremor, aged from 40 to 60 years and 20 patients with akinetic-rigid form of Parkinson disease, aged from 45 to 70. All patients were subjected to electromyographic research of tremors with mild contractions of both m.extensor digitorum communis and to neuropsychological testing (Mini Mental State Examination).

Results: 15 out of 60 patients registered essential and 20 functional while 45 with Parkinson disease had organic tremor. Results of neuropsychological testing showed greater decline of cognitive functions in akinetic forms of Parkinson disease, and lesser in tremor form and normal results in patients with essential and functional tremor.

Conclusions: Our results revealed that electromyographic examination of tremor pattern, frequency, amplitude and bursed duration is useful for tremor differentiation, which has therapeutic and diagnostic significance, as does neuropsychological testing for assessment of the degree of cognitive disorder in tremor and hypokinetic form of the disease.