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# ASSESSMENT OF MOTOR DISORDERS DYNAMICS IN THE EARLY STAGES OF PARKINSON'S DISEASE

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Diagnosis and treatment of Parkinson's disease (PD) remain one of the most significant problems of neurology today. Parkinson's disease prevalence is increasing with age and PD affects more than 1% of the population above 60 years. Parkinson's disease is characterised by many motor and non-motor features. Motor deficits generally appear when 50-60% of dopaminergic neurons in the substantia nigra are already lost, limiting the effectiveness of potential neuroprotective therapies. Taking into account the substitutive symptomatic therapy of this pathology, it is very important to have the monitor the adequacy and effectiveness of the treatment.

In our study a non-contact system of objective assessment of movements is used for estimation of the motor symptoms. The assessment of movements was carried out on a MDS-Unified Parkinson's Disease Rating Scale (MDS-UPDRS). (Figure 1) An objective analysis of the structure of motor and non-motor symptoms will allow for a more reliable diagnosis at an early stage of Parkinson’s disease. Comprehensive monitoring of the effectiveness of treatment of motor and non-motor disorders in the early stages of Parkinson’s disease will improve the quality of life of patients, expand the possibilities of social adaptation.

***Keywords:*** *Parkinson’s disease, early diagnosis, non-motor symptoms, postural control.*

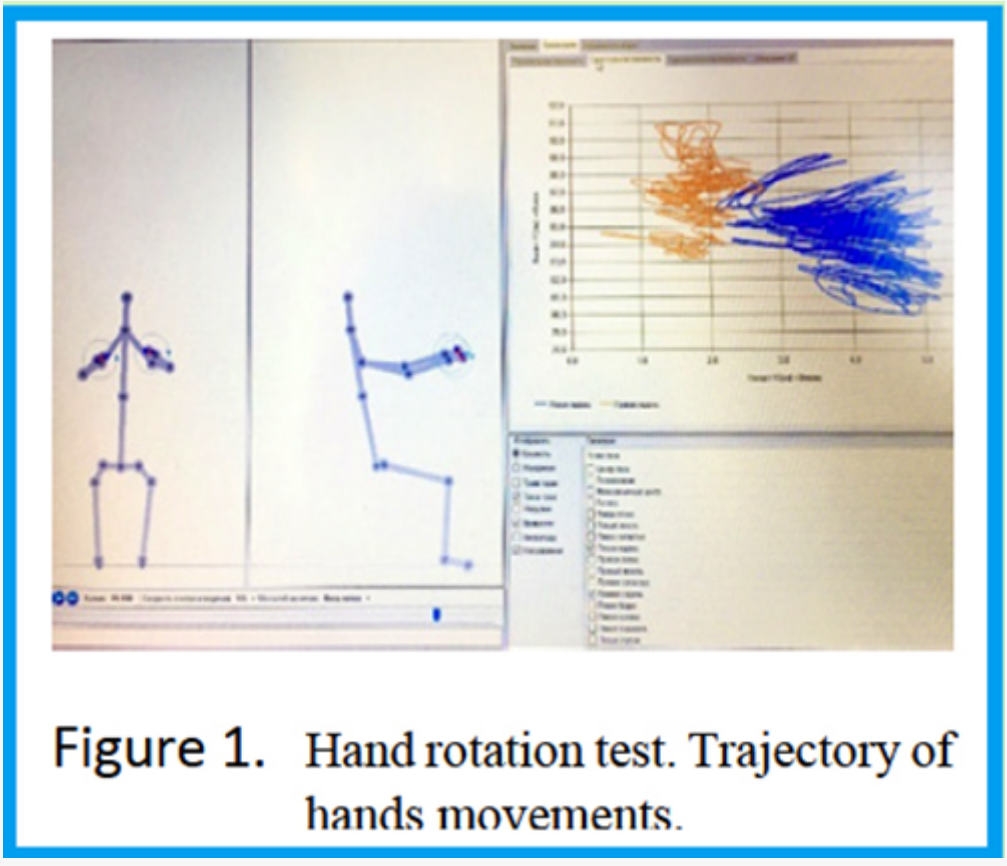

Figure 1. Hand rotation test. Trajectory of hands movements.