



**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
ЗАПОРІЗЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ**

**НАУКОВЕ ТОВАРИСТВО СТУДЕНТІВ, АСПРАНТІВ, ДОКТОРАНТІВ І
МОЛОДИХ ВЧЕНИХ**

**ЗБІРНИК ТЕЗ ДОПОВІДЕЙ
ВСЕУКРАЇНСЬКОЇ НАУКОВО-ПРАКТИЧНОЇ
КОНФЕРЕНЦІЇ СТУДЕНТІВ ТА МОЛОДИХ ВЧЕНИХ
«ДОСЯГНЕННЯ СУЧАСНОЇ МЕДИЧНОЇ ТА
ФАРМАЦЕВТИЧНОЇ НАУКИ – 2022»**

4 лютого 2022 року



ЗАПОРІЖЖЯ – 2022

ОРГКОМІТЕТ КОНФЕРЕНЦІЇ:

ГОЛОВА ОРГКОМІТЕТУ:

ректор ЗДМУ, Заслужений діяч науки і техніки України, проф. Колесник Ю.М.

ЗАСТУПНИКИ ГОЛОВИ:

проректор з наукової роботи, Заслужений діяч науки і техніки України, проф. Туманський В.О.;

голова Координаційної ради з наукової роботи студентів, проф. Беленічев І.Ф.;

голова наукового товариства студентів, аспірантів, докторантів і молодих вчених, проф. Павлов С.В.;

секретар Координаційної ради з наукової роботи студентів, ст. викл. Абросімов Ю.Ю.;

голова студентської ради ЗДМУ Федоров А.І.

ЧЛЕНИ ОРГКОМІТЕТУ:

заступник голови студентської ради Будагов Р.І.; голова навчально-наукового сектору студентської ради Єложенко І.Л.

DYNAMICS OF SILENCE PERIOD LATENCY OF THE PREMOTOR CORTEX IN PATIENTS WITH STAGE II PARKINSON'S DISEASE AFTER TRANSCRANIAL MAGNETIC STIMULATION TREATMENT

Aravitska Dj.N.

Scientific supervisor: Assoc. Prof. Demchenko A.V.

Department of Family Medicine, Therapy, Cardiology and Neurology FPE
Zaporizhzhia State Medical University

The aim of our study was to determine the change in the silence period latency in patients with stage II Parkinson's disease (PD) to evaluate the effectiveness of PD treatment using TMS.

Materials and methods. The study was conducted on the basis of the University Clinic OF ZSMU. The study involved 90 patients aged 45 to 75 years with PD stage II by Hoehn-Yahr. All patients were randomized into two groups of 45 people each for a course of TMS: the 1st group included patients who were assigned a real course of TMS, while patients of the 2nd group received placebo TMS sessions. Patients on the background of basic therapy for PD were additionally prescribed a course of therapeutic TMS sessions. During the study, patients were examined twice: at the beginning of treatment and after 10-12 days. Examination of patients was carried out according to the following scheme: clinical and neurological examination using the SPES SCOPA Motor scale and neurophysiological examination with the determination of the silence period (SP) latency. The results of the study were processed using the statistical package of the licensed program "STATISTICA® for Windows 13.0", as well as "Microsoft Excel 2010".

Results. The average age and duration of the disease in the examined patients did not differ significantly between groups ($p>0.05$). The assessment of motor symptoms according to the SPES SCOPA Motor scale in patients with real TMS significantly decreased after treatment ($p<0.001$), and no significant changes were found in the placebo group ($p=0.25$). After treatment, patients of the TMS group showed a

significant prolongation of the SP latency both in the right hemisphere ($p > 0.001$) and in the left hemisphere ($p > 0.001$) during tests with an increase in magnetic field induction. In patients of the placebo-TMS group, after treatment, the SP latent period did not significantly change either in the right hemisphere ($p = 0.36$) or in the left hemisphere ($p = 0.3$).

Conclusions.

1. The SP latency significantly increased in tests with an increase in induction at the first visit by TMS in all patients (groups 1 and 2), which indicates the potential for inhibitory processes in the premotor cortex in patients with PD stage II.

2. The SP latency significantly increased, and the score of motor symptoms according to the SPES SCOPA Motor scale significantly decreased in patients with PD stage II who underwent a course of real TMS, while no changes were detected in patients in the placebo group, which indicates the effectiveness of the PD treatment by the TMS method.