into tubes with serum separating gel (BD Vacutainer® SST™II Advance), centrifuged at 2000 g, serum was frozen -78°C. The activity of leukocyte elastase in blood serum was measured spectrophotometrically by the rate of hydrolysis of the substrate BOC-Ala- ONp (Biomedical, Inc.).
Results: An important physiological indicator for ASD in the model used is a slowdown in weight gain. As a result of the study, it was revealed that the weight of males after 6 days of VPA administration was lower compared to control individuals ($p = 0.003$). In the "Social Behavior" test, in males who received VPA, the latent period for leaving the starting compartment was significantly longer than in the control ($p = 0.019$); also, experienced males later approached a stranger as if they were a stranger ($p = 0.037$), compared to controls. In this study, the activity of leukocyte elastase in the rat's blood serum receiving VPA was significantly higher than in control individuals ($p = 0.04$). Similar deviations are observed in patients with ASD.
Conclusions: These results allow us to conclude that the administration of valproic acid to rats in the early postnatal period causes changes in physiological and behavioral characteristic typical for ASD. This confirms the validity of the created experimental model. The increase of leukocyte elastase activity in the rat receiving VPA indicate the role of inflammation in pathogenesis of ASD.

Disclosure of Interest: None Declared

EPV1098

Reflection of Burnout Severity in a EEG Frequency Pattern

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Introduction: The burnout develops gradually, unnoticed by the person, and its symptoms may appear after several years and leads to serious mental and behavioral changes. The processes underlying burnout are largely unknown due to the lack of specialized studies aimed at identifying specific biomarkers. Based on this, it is necessary to detect the first, critical moment - the first symptoms of burnout.
Objectives: We aimed to examine the EEG frequencies changes relating to severity of Anxiety Tension stage of Emotional Burnout.
Methods: In this study 752 participants, students and staff of Taras Shevchenko National University of Kyiv (Kyiv, Ukraine) were involved (209 males, mean age = 19.2, 543 females, mean age = 18.28). We used the 84-item Boyko's Syndrome of Emotional Burnout Inventory to measure the emotional burnout formation. We analyzed separate artefact-free EEG segments in all frequency bands from 0.2 to 45 Hz during resting state (3 min, closed eyes condition). In order to identify the EEG signs of emotional burnout the normalized power spectral densities (PSD) were calculated on the segment from 61 to 70 seconds of recordings.
Results: The revealed burnout-related (Anxiety Tension stage) variables in the spectral characteristics of the EEG characterized by the significant changes in the theta 2 (frontal area and left temporal-parietal cortex), alpha 2 (right parietotemporal cortex) and beta 1 subbands (left frontal-central-right parietal axis).
Conclusions: These data pointed to the influence of Anxiety Tension development mostly on the processes associated with short-term memory and focused attention.

Disclosure of Interest: None Declared

EPV1100

Neuroprotective effect of HLDF-6-H peptide in Parkinson's disease

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Introduction: The pathogenesis of Parkinson's disease (PD) is associated with simultaneous damage to the nervous, endocrine and immune systems. Therefore, drugs that have a regulatory effect on all of these systems should be used to treat PD. Similar properties are possessed by the synthetic analogue of fragment 41–46 Human Leukemia Differentiation Factor (Thr-Gly-Glu-Hse-His-Arg-NH2, HLDF-6-H)
Objectives: To study the effects of HLDF-6-H in an experimental model of PD and its impact on the severity of motor and non-motor symptoms in patients with PD
Methods: The study used a preclinical PD model based on the administration of moderate doses of MPTP toxin (18 mg/kg) and chronic intranasal administration of HLDF-6-H peptide (300 μg/kg) to C57Bl/6 mice. Mice behaviour was assessed in the Grid test and the Forced Swim (FS) test. After 3 weeks of peptide administration, mRNA of neurotropic factors (BDNF and NGF) and key cytokines (IL-1β, IL-6, IL-10, gamma interferon, tumour necrosis factor α and transforming growth factor β1) was analyzed in five brain regions (striatum, hippocampus, hypothalamus, pituitary gland, cortex). Serum levels of 10 steroids, including testosterone, estradiol, progesterone, and corticosterone, were determined using MS analysis. The activity of inflammatory markers leukocyte elastase (LE) and α1-proteinase inhibitor (α1-PI) was determined using kinetic methods. Patients (24 people) with a disease duration from 1 to 16 years received HLDF-6-H intranasally as part of the balm "Rinohealing" (9-31 μg/kg per day, up to 6 months) in addition to standard pharmacotherapy for PD. The effectiveness of therapy was assessed based on the patients' subjective assessment of their condition according to the MDS-Unified Parkinson's Disease Rating Scale (MDS-UPDRS)
Results: HLDF-6-H blocked motor disorders (Grid test) and depressive-like syndrome (FS test) caused by MPTP in mice, restored the level of neurotropic factors and cytokines in the brain of animals ($p<0.05$). In the model used, a decrease in the level of estradiol and cortisol in the blood was reversible by the peptide ($p<0.05$). The development of the inflammatory process under MPTP action is indicated by an increase in the activity of α1-PI,