

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 neurotrophic 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 neurotrophic 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,

the anti-inflammatory effect of HLDF-6-H is expressed in a decrease in the serum activity of LE and α 1-PI ($p < 0.05$). A decrease in the severity of a number of motor (rigidity, tremor, movement and balance disorders) and non-motor (anxiety-depressive state, impairment of memory, cognitive functions, sleep, etc.) pathological symptoms of PD was noted with chronic use of “Rinohealing” as an additional therapy.

Conclusions: HLDF-6-H peptide has antidepressant, neuroprotective and anti-inflammatory activity. This has been demonstrated both in the experimental model of PD and when used as an additional therapy for PD. The obtained results indicate the prospects for further studies of HLDF-6-H for the treatment of PD.

Disclosure of Interest: None Declared

Obsessive-Compulsive Disorder

EPV1101

Schizophrenia and OCD association, psychopharmacological intervention and cognitive-behavioral therapy

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Introduction: Global epidemiological research suggests that approximately 1% of the global population is affected by schizophrenia, with 2 to 3% experiencing obsessive-compulsive disorder (OCD). Additionally, a noteworthy proportion of individuals with schizophrenia also exhibit comorbid OCD. This overlap often complicates differential diagnosis, especially as many schizophrenia patients display obsessive and/or compulsive symptoms akin to those seen in OCD.

Objectives: This literature review is designed to examine how frequently schizophrenia and OCD co-occur and to summarize the treatments reported in various studies.

Methods: A comprehensive literature review was carried out focusing on the co-occurrence and treatment of schizophrenia and OCD. This review involved an extensive search of scientific publications, selecting articles pertinent to the subject from databases such as Scopus and PubMed using keywords like “schizophrenia and OCD” and “schizophrenia and OCD treatment,” yielding over 1500 articles from 1988 to 2024. Additional sources included Google Scholar and various grey literature sources. After applying specific exclusion criteria, 44 recent articles were selected that addressed the frequency of co-occurrence and the treatment modalities used for schizophrenia and OCD. These articles were categorized by country, frequency of co-occurrence, and treatment methods.

Results: The review revealed that roughly 14.5% of individuals with schizophrenia also suffer from OCD. Among treatments, Clozapine was commonly associated with the worsening of OCD symptoms, while Haloperidol showed better tolerability. Other antipsychotic medications like Olanzapine, Risperidone, and Quetiapine were noted to either aggravate existing OCD symptoms or initiate the onset in some cases. In contrast, some antipsychotics, such as Amisulpride and Aripiprazole, helped reduce symptom severity. Non-pharmacological treatments, particularly Cognitive Behavioral Therapy (CBT), have

proven effective in reducing symptom severity with favorable outcomes noted in numerous cases. The integration of pharmacological and psychotherapeutic strategies is generally recommended to maximize therapeutic outcomes, underscoring the potential of combined modalities in treating OCD.

Conclusions: Our literature review investigated the prevalence of comorbidity between schizophrenia and obsessive-compulsive disorder (OCD), as well as the pharmacological and non-pharmacological treatments utilized. The significant overlap between these disorders highlights the complexity of managing patients with these co-occurring conditions, underscoring the need for systematic screenings and integrated treatment approaches.

Disclosure of Interest: None Declared

EPV1102

Obsessive-Compulsive Disorder and Myoclonic Movements Following Streptococcal Pharyngitis: A Rare Pediatric Neuropsychiatric Case

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Introduction: Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal infections (PANDAS) typically describe the sudden onset of neuropsychiatric symptoms, such as Obsessive-Compulsive Disorder (OCD), following streptococcal infections. However, cases that present with comorbid motor abnormalities, such as myoclonic jerks, are rare and pose diagnostic challenges. We report the case of a child who developed severe OCD accompanied by myoclonic movements after a streptococcal pharyngitis infection, representing a rare neuropsychiatric syndrome with an atypical clinical course.

Objectives: To present a rare case of post-streptococcal OCD in a child with comorbid motor myoclonus, highlighting the unusual presentation and the multidisciplinary therapeutic approach.

Methods: An 11-year-old male presented to the emergency department with sudden-onset severe compulsive behaviors, including repetitive prayers and ritualistic actions. These symptoms were accompanied by involuntary, rapid, jerky movements in both upper and lower limbs, consistent with myoclonus. Two weeks prior, the patient had been treated for streptococcal pharyngitis. A comprehensive evaluation was performed, including throat culture, elevated antistreptolysin O (ASO) titers, and electroencephalogram (EEG) to rule out seizures. The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) was used for assessing OCD severity.

The patient was managed with a multidisciplinary approach involving pediatricians, neurologists, and psychiatrists. A combination of antibiotics, selective serotonin reuptake inhibitors (SSRIs), and clonazepam for myoclonus was prescribed, alongside Cognitive-Behavioral Therapy (CBT).

Results: ASO titers were elevated, indicating recent streptococcal infection, and the EEG showed no epileptiform activity. The initial Y-BOCS score was 32, reflecting severe OCD. After four weeks of antibiotic therapy, CBT, and pharmacological treatment, the Y-BOCS score decreased to 18. Myoclonic movements also reduced