

Job mutation was recommended for four patients. Early retirement due to invalidity was proposed for two patients.

**Conclusions:** The decision on the medical fitness of workers with psychiatric disorders remains a delicate issue that requires the attention of both legislators and occupational health practitioners.

**Disclosure of Interest:** None Declared

## EPV0106

### Proteomic analysis of blood serum in bipolar disorder

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**Introduction:** Bipolar disorder (BD) often has symptoms similar to other mental disorders (BD), and there are no paraclinical criteria for differential diagnosis. (Geoffroy *et al.* Bip Dis 2017; 5 7). Published work on MD proteomics is scarce and focused on schizophrenia. (Dmitrieva *et al.* PeerJ. 2022; 10 e13907). Therefore, it is important to study potential biomarkers of BD using easily accessible material—blood serum (Rhee *et al.* *Transl Psy* 2023; 13 44). Identification of proteins involved in the pathogenesis of BD will help in the study of the pathogenetic mechanisms of BD, the development of differential diagnostic methods and pathogenetically based drugs.

**Objectives:** Carrying out a comparative proteomic analysis of blood serum from patients with BD and healthy individuals to identify potential biomarkers

**Methods:** We analyzed the protein spectrum of the blood serum of 14 patients with BD who were admitted during a depressive episode at the age of 32 [21;52] years with a disease duration of 8[5;11] years. The control group consisted of 10 mentally and somatically healthy individuals corresponding to the gender and age of the BD group. Blood serum was purified from 14 major proteins using affinity chromatography and separated by electrophoresis using the Laemmli method. After trypsinolysis, proteins were identified using HPLC/mass spectrometry on an Orbitrap instrument. Mass spectrometric analysis was performed on the Advanced Mass Spectrometry Core Facility of Skolkovo Institute of Science and Technology. Protein identification was carried out using the UniProtKB database using the Mascot search engine. The results were tested for significance using the nonparametric Fisher exact test with Yates correction.

**Results:** In patients with BD, qualitative mass spectrometry revealed differential expression of 21 neurospecific proteins. Among them: Protein dispatched homolog 3, Ceroid-lipofuscinosis neuronal protein 6, SWI/SNF complex subunit SMARCC1, Neurogenic differentiation factor 4, Protein furry homolog-like, REST corepressor 1 – are involved in the proliferation, development and differentiation of neurons; Hemicentin-2, Dystrophin, Voltage-dependent L-type calcium channel subunit alpha-1D, Syntaxin-

binding protein 5, Small conductance calcium-activated potassium channel protein 1– participate in synaptic transmission of ion transport and form receptors.

**Conclusions:** Studying the role of these proteins in BD and their quantitative content in a larger number of patients is promising. This will help in the development of new diagnostic criteria and targets for drug therapy for BD.

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## EPV0107

### Clinical Characteristics and Aggression in Unipolar and Bipolar Course of Affective Disorders

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**Introduction:** The diagnosis and treatment of depression are complex due to its diverse forms. Recent focus in clinical practice has been on identifying markers for mono- and bipolar depression, as early diagnosis significantly impacts treatment.

**Objectives:** To identify clinical characteristics of unipolar and bipolar depressive disorders and assess their correlation with aggression levels in patients.

**Methods:** We studied patients at the Mental Health Research Institute of Tomsk NRMC: ICD-10 codes: Bipolar Affective Disorder (BD) (n=28), Recurrent Depressive Disorder (RDD) (n=33). Patients with BD were older (49 (33; 52) years) than those RDD (40 (31; 51) years) (p=0.018). The current depressive episode duration was shorter for BD (3 (2; 7) months) compared to RDD (5 (2; 12) months) (p=0.018). Gender distribution was comparable (p=0.568). We measured clinical symptoms (depression, anxiety, anhedonia) using psychometric tools (HAM-D, HAM-A, SHAPS) at admission and after 3 weeks of therapy. Aggression was assessed with the Buss-Durkee Hostility Inventory (BDHI) at admission.

**Results:** Patients with RDD demonstrated a higher severity of depressive symptoms upon admission (Table 1).

**Table 1.** Clinical Characteristics of Unipolar and Bipolar Depression Course

Severity of Symptoms	Bipolar Depression	Unipolar Depression	p (U-test)
HAM-D on admission	19 (15.5; 24)	22 (18; 26)	<b>0.044</b>
HAM-D after 3 weeks	4 (2; 6)	4 (3; 7.75)	0.219
HAM-A on admission	16 (12; 25)	19.5 (13; 26.75)	0.098
HAM-A after 3 weeks	3 (2; 6.5)	4 (3; 7.75)	0.219
SHAPS on admission	5 (1.25; 9)	3 (0; 10)	0.7
SHAPS after 3 weeks	1 (0; 4)	1 (0; 3)	0.44

The severity of some aggressive patterns was higher in patients with bipolar disorder (Table 2).

**Table 2.** The severity of aggressiveness in unipolar and bipolar depression.

BDHI subscale	Bipolar Depression	Unipolar Depression	p (U-test)
Aggressiveness index	19 (13; 24)	18.5 (12; 24)	0.745
Hostility index	9 (7; 13.75)	9 (7; 11)	0.139
Assault Hostility	4 (2; 6)	4 (2; 6)	0.618
Indirect Hostility	5 (5; 6)	4 (4; 6)	<b>0.015</b>
Irritability	6 (4; 8)	5 (3; 7)	0.081
Negativism	2 (1; 4)	2 (1; 4)	0.262
Resentment	5 (4; 6)	5 (3; 6)	0.113
Verbal Hostility	7 (6; 8)	6 (5; 8)	<b>0.008</b>

As a result of the study, no statistically significant correlations were found ( $p > 0.05$ , Spearman's test).

**Conclusions:** The conducted research did not yield convincing data that would allow us to make judgments about specific clinical patterns in the course of unipolar and bipolar depression. Thus, the problem of searching for unique biological markers of the courses of affective disorders remains relevant. Support by the Russian Science Foundation grant No. 23-75-00023.

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## EPV0108

### Neuropsychiatric symptoms in Multiple Sclerosis (MS): Case Report of a First Manic Episode in a Patient with Suspected MS

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**Introduction:** Multiple Sclerosis (MS) is an inflammatory disease affecting primarily the central nervous system, characterized by focal lesions of white-matter demyelination. It can present with a variety of neurological symptoms, including monocular vision loss, sensory loss, paresthesias, limb weakness, ataxia and bladder dysfunction, and has a typically chronic and progressive course. Neuropsychiatric manifestations including depressive or manic symptoms, anxiety disorders and psychosis, are also frequently observed, and are of particular importance to mental health practitioners.

**Objectives:** To describe a case of a 45-year-old female patient with a history of suspected MS presenting with manic symptoms, and to discuss the possible neuropsychiatric manifestations of Multiple Sclerosis.

**Methods:** Clinical case report and literature review.

**Results:** A 45-year-old woman was brought to the emergency department presenting with severe acute agitation, irritable mood, rapid speech and persecutory delusions. She had no prior history of neuropsychiatric symptoms, but her medical history was notable for a suspected diagnosis of MS, having suffered an episode of optic neuritis 16 years before the present episode. Magnetic

Ressonance Imaging performed 3 months before emergency admission documented non-specific white-matter lesions presenting as hyper-intense in long TR sequences, as well as a cervical lesion of atypical characteristics, representing possible spondylo-lytic myelopathy or demyelination. A head CT performed at emergency admission did not reveal relevant acute findings. The patient was hospitalized and initiated risperidone and valproic acid therapy. She responded favorably to medication, with progressive stabilization of mood and remission of delusional ideas over three weeks.

**Conclusions:** Neuropsychiatric symptoms are a common and concerning manifestation of Multiple Sclerosis. The present case illustrates that clinicians should be on alert for signs of mood and psychotic symptoms in patients with suspected or confirmed MS, as these can manifest at any point during the disease course.

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## EPV0109

### Our old friend lithium and encephalopathy: a case report

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**Introduction:** Lithium is a well-established mood stabilizer used in the management of bipolar disorder, that is generally well-tolerated; however, it is associated with rare but potentially severe neurological side effects. Lithium-induced encephalopathy is characterized by a spectrum of symptoms, ranging from subtle cognitive deficits to severe manifestations such as altered mental status to overt delirium, seizures and coma. Risk factors include advanced age, concomitant medication and underlying renal impairment. This symptoms do not consistently correlate with lithium concentrations.

**Objectives:** This abstract aims to provide an overview of the clinical characteristics, underlying mechanisms, and management of lithium-induced encephalopathy.

**Methods:** We discuss a case of a 62-years-old woman diagnosed with bipolar disorder under treatment with lithium and olanzapine, without recent changes of posology. She presented to emergency department with subacute and fluctuating neuropsychiatric symptoms, including confusion, disorientation in time and space, complex visual hallucinations, delusional ideas, alteration in memory and logic thinking, dysarthria and dyspraxia. Neuroimaging showed no structural abnormalities, blood tests were normal and serum lithium levels were within the therapeutic range (0.8 mEq/L). Upon discontinuation of lithium, the patient exhibited a gradual resolution of symptoms. We conducted a comprehensive search of medical databases, including PubMed, to identify relevant articles related to lithium encephalopathy published up to September 2023.

**Results:** This case challenges the conventionally established threshold of elevated serum lithium levels in the development of encephalopathy. The underlying pathophysiology is complex and multifactorial, with proposed mechanisms including alterations