

**Table 2.** The most common clusters of Neuropsychiatric features

NPI-Q	Positive Thyroid Autoantibodies (n=33)
Delusion	15 (45.4%)
Agitation/Aggression	14 (42.4%)
Irritability	14 (42.4%)
Motor abnormality	14 (42.4%)
Sleep disorder	15 (45.4%)
Appetite/Eating	14 (42.4%)

**Conclusions:** In particular, in a subset of schizophrenia spectrum disorder or affective disorder patients with positive anti-thyroid antibodies may indicate autoimmunity, especially in cases where catatonic symptoms dominate the clinical presentation.

**Disclosure of Interest:** None Declared

## EPP0434

### Features of the spectrum of immune markers in patients with juvenile depression with clinically high risk of psychosis

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**Introduction:** Identification of biomarkers associated with the risk of psychosis manifestation in juvenile patients with depression may contribute to a better understanding of the pathogenesis of mental disorders and early diagnosis.

**Objectives:** To determine the level of pro-inflammatory and anti-inflammatory cytokines and other inflammatory indicators in the plasma of juvenile patients with depression and clinically high risk of psychosis, and to study the correlation of these markers with the severity of psychopathologic symptoms.

**Methods:** 80 young men aged 16-24 years with the first depressive episode (F32.1-2, F32.38, F32.8) were examined. Based on the severity of attenuated psychotic symptoms (APS) in the structure of depression according to the SOPS scale, all patients were divided into two groups - with clinically high risk of psychosis (n=58) and with depression without APS (n=22). The HDRS-21 and SANS scales were also used for psychometric assessment. Serum level of cytokines TNF- $\alpha$ , IL-6, IL-8, IL-10, TNF- $\alpha$ /IL-6 ratio, TNF- $\alpha$ /IL-10 ratio, leukocyte elastase (LE) and  $\alpha$ 1-proteinase inhibitor ( $\alpha$ 1-PI) activity, C-reactive protein (CRP) concentration, and the level of autoantibodies to S-100B protein were determined.

**Results:** Both groups of patients showed a high level of inflammation assessed by LE and  $\alpha$ 1-PI activity ( $p > 0.05$ ). Significantly higher level of IL-6 ( $p = 0.03$ ), CRP concentration ( $p = 0.026$ ) and TNF- $\alpha$ /IL-10 ratio ( $p = 0.032$ ) were found in patients with clinically high risk of psychosis. This group was also characterised by high level of autoantibodies to the S-100B protein compared to patients with depression without APS ( $p = 0.048$ ).

In the high clinical risk group, correlations were found between the SOPS positive subscale score and the level of TNF- $\alpha$  ( $R = 0.32$ ,  $p = 0.017$ ), IL-8 ( $R = -0.3$ ,  $p = 0.034$ ), TNF- $\alpha$ /IL-6 ratio ( $R = 0.30$ ,  $p = 0.021$ ) and TNF- $\alpha$ /IL-10 ratio ( $R = 0.32$ ,  $p = 0.014$ ). The SOPS negative subscale score correlated with CRP concentration ( $R = 0.3$ ,  $p = 0.043$ ). The SOPS total score correlated with TNF- $\alpha$ /IL-10 ratio ( $R = 0.31$ ,  $p = 0.021$ ). In this group of patients, the level of IL-10 was found to correlate with the duration of the disease ( $R = 0.48$ ,  $p < 0.001$ ). In patients with depression without APS, the level of IL-6 was correlated with the severity of depression according to the HDRS scale, and the level of TNF- $\alpha$  was associated with the duration of the depressive episode ( $R = 0.51$ ,  $p = 0.029$ ).

**Conclusions:** The obtained results confirm the involvement of inflammation in the development of juvenile depression. Qualitative and quantitative characteristics of the spectrum of immune markers and the cytokine profile, and correlations with the severity of psychopathologic symptoms were revealed in patients with clinically high risk of psychosis.

**Disclosure of Interest:** None Declared

## EPP0435

### Immunological predictors of rhythmic transcranial magnetic stimulation (rTMS) efficiency in patients with treatment-resistant schizophrenia

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**Introduction:** Model and clinical studies demonstrate the efficiency of rhythmic transcranial magnetic stimulation (rTMS) in diseases associated with neuroinflammation. The therapeutic potential of rTMS is related to modulation of neuroplasticity in the CNS, activation of neurogenesis and reduction of neuroinflammatory processes. Presumably, one of the factors that determines the efficiency of rTMS can be the features of the immune status of patients.

**Objectives:** To reveal the features of the spectrum of inflammatory markers in patients with treatment-resistant schizophrenia with different efficiency of rTMS.

**Methods:** 31 male patients aged 16 to 47 years (mean age  $29.9 \pm 8.4$  years) with treatment-resistant schizophrenia who developed a first psychotic episode in adolescence (19-25 years) were examined. The course of rTMS was conducted for 3 weeks (15 sessions). Depending on the dynamics of clinical and psychometric parameters after the course of rTMS, the patients were divided into three groups: group 1 - with worsening of clinical condition (n=8); group 2 - without therapeutic effect (n=12); group 3 - with good therapeutic response (n=11). Before rTMS, leukocyte elastase (LE) and  $\alpha$ 1-proteinase inhibitor ( $\alpha$ 1-PI) activity, and the levels of autoantibodies to S-100B protein and myelin basic protein (MBP) in the plasma of patients were determined. The parameters of 18 healthy male donors without clinical signs of psychiatric and somatic pathology were used as controls.