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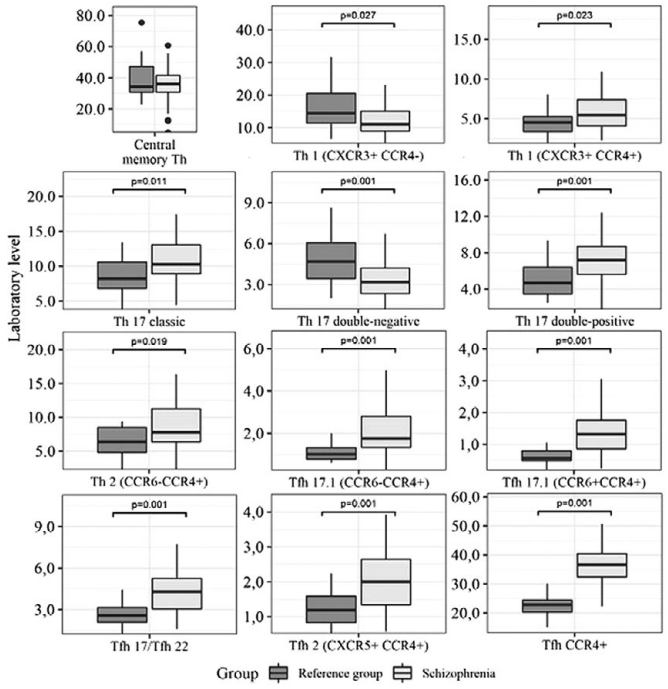
**Introduction:** The question of the involvement of inflammatory and autoimmune processes in schizophrenia pathogenesis has become the most relevant in the last decade and yet is not fully understood.
**Objectives:** The study included 60 patients with paranoid schizophrenia (age 18 - 55 y.o.) and 30 healthy control group participants. Patients were in a stabilization state without a history of organic brain disorder or another verified somatic disease in the exacerbation phase.
**Methods:** Research methods included follow-up method, neuropsychological (PANSS, BAC-S), laboratory (enzyme immunoassay, flow cytometry), and statistical.
**Results:** Patients with schizophrenia had significant structural disorders of thinking, passive, apathetic withdrawal, negativism, impaired attention, psychomotor speed, volitional impulses. Cognitive impairment was detected in all study participants. Severe impairments are noted in the executive functioning, hand-eye coordination, attention, psychomotor speed. The severity of cognitive impairments correlated with the severity of clinical symptoms. Patients with schizophrenia had a significant decrease in central memory T-regulators levels, and an increase in Th1 and Th2 subsets, «double-positive» and «classic» Th17, Tfh2, «classic» Tfh17, and in Tfh17.1 (Pic.1).




Picture. 1. T-helper subsets in patients with schizophrenia. They also had high levels of CCL20, IL-10, IL-12, IL-1β, IL-27, IL-31, IL-4, IL-13, IL-6, IL-9, TNFα in comparison with a control group. A significantly decreased levels of IL-17A, IL-17F, IL-2, IL-22, and TNFβ were also described in this group of patients.

**Conclusions:** Patients with schizophrenia may be characterized by the presence of an inflammatory process and a high chance of autoimmunity. *Aknowledgement. This work was supported by the grant of the Russian Federation Government, contract 14. W03.31.0009*

**Disclosure:** No significant relationships.
**Keywords:** schizophrénia; Cytokines; autoimmunity; lymphocytes subsets

## O0113

## Elevated osteopontin and IFNy serum levels and increased neutrophil-to-lymphocyte ratio are associated with the severity of symptoms in schizophrenia

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**Introduction:** Inflammation and immune dysregulation could contribute to the pathogenesis of schizophrenia. Osteopontin (OPN) is a key cytokine-like molecule in cellular immune response and it can directly modulate the cytokine expression and survival of microglia. Furthermore, its mRNA expression is elevated in first episode psychosis. Imbalance of T-helper subtypes could also represent a vulnerability factor for schizophrenia.
**Objectives:** The aim of this study was to evaluate the relevance of T-helper subtype associated cytokines, OPN and NLR in the assessment of the severity of schizophrenia.
**Methods:** 22 patients with schizophrenia were assessed for the intensity of their symptoms by PANSS and CGI scores. Serum OPN, IFNy, IL-10 and IL-8 concentrations were measured by ELISA kits and NLR was calculated from blood count. Statistical evaluation was performed using Mann-Whitney U test, Student's t test and Spearman correlation.
**Results:** We found significant correlation between the level of OPN and PANSS-total, PANSS-general scores. IFNy level and NLR showed significant correlation with PANSS-total, PANSS-positive, PANSS-general and CGI score. Antipsychotic therapy only had significant effects on NLR and OPN levels, both of which were significantly reduced after long-term antipsychotic treatment.
**Conclusions:** Our results indicate that elevated OPN and IFNy concentrations, and increased NLR are associated with severe symptoms in schizophrenia and suggest the importance of Th1 subtype in patients with high PANSS-positive and PANSS-general score. Antipsychotic treatment had significant effects on the level of OPN and NLR, but not on the level of IFNy. Overall our results strengthen the inflammation hypothesis of schizophrenia.

**Disclosure:** No significant relationships.
**Keywords:** osteopontin; Cytokines; inflammation; schizophrénia