

**Methods:** 40 patients with FEP and 30 healthy controls have been recruited to the study. Patients with affective psychosis, drug-related psychosis and patients with diagnosed encephalitis were excluded. The sera were tested with immune fluorescent assays for anti-NMDAR antibodies. A non-specific method was used to test anti-brain antibody activity on monkey-cerebellum and rat-hippocampus slices.

**Results:** Neither the samples from the 40 patients, nor the samples of healthy controls contained anti-NMDAR antibodies. 14 of the patients' and only 6 of the healthy controls' serum showed positive reaction of the neuroendothelium. These results suggest that there is a difference between the groups, although the results are not significant.

**Conclusions:** None of the 40 patients proved positive for anti-NMDAR antibodies in agreement with previous studies. However, a higher proportion of samples from the FEP group showed activity in the neuroendothelium of non-specific immune fluorescent assays compared to healthy controls. Based on literature and on our experience, it is possible, that unknown autoimmune antibodies play role in FEP.

**Disclosure:** No significant relationships.

**Keywords:** anti-NMDA receptor encephalitis; antibody; autoimmune encephalitis; First Episode Psychosis

#### EPP0766

### Altered Complement System Activity in Schizophrenia: Overexpression of C4 and/or Abnormal Expression of Complement Control Proteins in the DLPFC, Parietal Cortex, Temporal Cortex, Associative Striatum, Hippocampus, Cerebellum and Whole Blood

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doi: 10.1192/j.eurpsy.2022.930

**Introduction:** In schizophrenia, abnormal synaptic pruning during adolescence may be due to an altered Complement system activity. While this hypothesis is supported by *C4* overexpression in various brain regions of individuals with schizophrenia, such alterations should be replicated and extended to other brain regions relevant to schizophrenia. Moreover, transcriptional studies of genes coding for proteins regulating the Complement system activity are lacking. Furthermore, it remains unknown whether cerebral and peripheral expression of *C4* and Complement control proteins (CCP) are related.

**Objectives:** To identify altered expression of *C4* and CCP (*CSMD1*, *CSMD2*, *CD46*) coding genes at the cerebral and peripheral levels in schizophrenic individuals.

**Methods:** We explored *C4* and CCP coding genes expression at the cerebral and peripheral levels. Using *shiny*GEO application we analyzed gene expression from eight Gene Expression Omnibus datasets obtained from 196 schizophrenic individuals and 182 control subjects. First, we compared gene expression between

schizophrenic patients and controls in postmortem cerebral samples from 7 different brain regions. Then, we compared gene expression between schizophrenic patients and controls in 4 peripheral tissues.

**Results:** We observed *C4* overexpression in the DLPFC, parietal, temporal cortex and associative striatum of schizophrenic individuals. We report altered transcriptional patterns of CCP genes in the DLPFC, hippocampus and cerebellum of schizophrenic individuals. *CD46* expression was altered in opposite directions between brain and blood of schizophrenic individuals. No significant alteration of *C4* expression was observed in peripheral tissues.

**Conclusions:** Our results support the hypothesis of an altered Complement system activity in various brain regions of schizophrenic individuals which may disrupt the synaptic pruning process during adolescence.

**Disclosure:** No significant relationships.

**Keywords:** Complement system; schizophrénia; Brain; Gene expression

#### EPP0767

### Dynamics of immune markers in different variants of post-psychotic depression after first-episode psychosis in young adult age.

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doi: 10.1192/j.eurpsy.2022.931

**Introduction:** Research in recent decades focuses on understanding the role of the immune system in First-Episode Psychosis (FEP) at a young age. Our studies indicate that different stages of schizophrenia differ in the spectrum of inflammation markers. These indicators reflect the activity of the pathological process, using them as markers of the clinical state of patients at different stages of the disease.

**Objectives:** To assess the relationship of immune markers with the clinical features of remission in patients after FEP.

**Methods:** Fifty patients aged 15-25 years with post-psychotic depression (PD) after FEP (F20, F25) and 30 healthy men were included in the study. The follow-up period was two years. PD typological variants with positive affectivity (PA) (n=30) and negative affectivity (NA) (n=20) were distinguished. Leukocyte elastase (LE),  $\alpha$ 1-proteinase inhibitor ( $\alpha$ 1-PI) activity, and S-100B autoantibodies in plasma samples were measured.

**Results:** The increase of LE and  $\alpha$ 1-PI activity in plasma of both types of PD patients compared to controls was detected ( $p < 0.01$ ). There was the highest LE activity and S-100B autoantibodies in PD with NA ( $p < 0.05$ ). The different dynamics of immune markers in both groups were correlated to the clinical features of remission. PD with PA was associated with a decrease in inflammatory markers ( $p < 0.05$ ) and a favorable prognosis. PD patients with NA had a further increase in LE activity and S-100B autoantibodies ( $p < 0.01$ ), and an unfavorable prognosis.

**Conclusions:** The results confirm using the immune indicators as markers to assess the quality of remission after FEP in young adult age and the risk of recurrent psychotic attacks.

**Disclosure:** No significant relationships.

**Keywords:** first-episode psychosis; post-psychotic depression; remission; immune markers

## EPP0768

### New categories of psychiatric disorders related to mild neuroinflammation-autoimmune psychosis, mild encephalitis

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doi: 10.1192/j.eurpsy.2022.932

**Introduction:** The mild encephalitis hypothesis (ME) (Bechter 2001, NPBR; updated Bechter 2013, Progr NP&BP) proposed that mild neuroinflammation triggered by infections, autoimmunity, trauma or toxicity (including from stress) might causally underlie a spectrum of severe mental disorders (SMDs), especially disorders of the schizophrenic and affective spectrum.

**Objectives:** The development from ME hypothesis to the new diagnoses of Autoimmune Psychosis (AP) and a subgroup of Autoimmune Encephalitis (AE) and beyond into future research is reviewed and discussed.

**Methods:** Expert review

**Results:** The subgroup of AE with exclusive or predominant psychiatric symptoms (compare Graus et al 2016) and all cases of AP (Pollak et al, Lancet Psychiatry 2020) match the previous proposed ME criteria. AE and AP can now successfully be treated in majority of cases by immune modulatory treatments. These new insights challenge both, the implementation of diagnosis and treatment into clinical reality and forthcoming research on the causality underlying severe mental disorders (SMDs). CSF studies showed in 50-70% of therapy resistant cases of affective and schizophrenic spectrum disorders some abnormalities compatible with mild neuroinflammation (Bechter et al 2010, J Psych Res), recently confirmed in large patient samples from various university hospitals in Germany (Endres et al 2018, Rattay et al 2021, aso.). Also post mortem findings are compatible with ME hypothesis in a larger subgroup of SMDs. Open questions of new clinical categorization by refined grading of mild neuroinflammation by improved diagnostic methods appear increasingly required, which will be discussed (Bechter Frontiers Psychiatry 2020).

**Conclusions:** Mild neuroinflammation appears causally involved in SMD

**Disclosure:** No significant relationships.

## EPP0769

### Effect of risperidone on the cravings of patients with methamphetamine use disorder

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doi: 10.1192/j.eurpsy.2022.933

**Introduction:** Methamphetamine associated psychosis has increased globally because of the increased usage of the substance. The use of risperidone is noted to reduce the cravings of methamphetamine in patients who have methamphetamine use disorder. This becomes relevant because the number of patients who are being treated with MAP tends to have high relapse rates. MAP is being treated with different antipsychotics and the treatment protocol is made usually for alleviating the symptoms, a formal treatment regimen for patients with MAP is yet to be developed (Chiang et al 2018; Srisurapanont 2021; Edwards and Mooney 2014)

**Objectives:** The purpose of this review is to highlight the use of risperidone in reducing the cravings of methamphetamine in patients who have methamphetamine use disorder

**Methods:** PubMed, SCOPUS and Web of Science literature databases were screened and filtered. With established inclusion and exclusion criteria, obtained a total of 15578 hits which was refined to 133 articles. A total of 10 papers were reviewed in detail

**Results:** Multiple clinical trials have shown that risperidone was effective in lowering drug cravings in methamphetamine use disorder. Along with the effects on craving, risperidone has also been studied for its effect on positive symptoms in patients with MAP (Samei 2016). Risperidone was noted to be effective in reducing positive symptoms.

**Conclusions:** Risperidone can be effectively used in the acute setting for psychosis and future cravings in the patients. Considering the limited clinical trials and research on risperidone and the cravings of methamphetamine use disorder, studies are needed with longer follow-ups and more samples in the future.

**Disclosure:** No significant relationships.

**Keywords:** “Methamphetamine”; “risperidone”; “cravings”; “Psychosis”

## EPP0771

### Factors related to Gaming addiction in adults

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doi: 10.1192/j.eurpsy.2022.934

**Introduction:** With the advancement of technology over the last years, gaming is no longer reserved to adolescents. It has become a growing phenomenon within young adults which should not be overlooked as it is accompanied with the risk of addiction.

**Objectives:** To study the factors involved in video games addiction behaviors in adults

**Methods:** We conducted a cross-sectional, descriptive and analytical study. Data were collected using a self-administered questionnaire on social networks. We solicited adults between 18–40 years. We used the gaming addiction scale (GAS) in its validated Arabic short version.

**Results:** A hundred and nine participants were included. The mean age was  $29.6 \pm 10.3$  with a sex ratio of 1.5. The mean age of the beginning of regular gaming was  $16.3 \pm 8.64$ . We found that 40.4% of