

significantly correlated with poor reception conditions ( $p=0.013$ ). The Sexual violence was significantly correlated with young age of nurse ( $p=0.005$ ). As for psychological violence, it was significantly correlated with work overload ( $p=0.004$ ), a poor caregiver-patient relationship ( $p=0.02$ ) and poor patient care ( $p=0.04$ ).

**Conclusions:** Our study showed that violence against nurses was frequent in psychiatric and emergency departments. Various factors could modulate their occurrence such as training and improvement of the working conditions.

**Disclosure:** No significant relationships.

**Keywords:** violence; psychiatric departments; emergency departments

## Psychoneuroimmunology

### EPV1101

#### From Mild Encephalitis Hypothesis to Autoimmune Psychosis - and remaining challenges

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**Introduction:** The mild encephalitis (ME) hypothesis of severe mental disorders, ME to be caused by infections, autoimmunity, toxicity and trauma (Bechter 2001, updated Bechter 2013), is now emergingly supported from neuroimaging and CSF and postmortem findings.

**Objectives:** Review about the present status of ME hypothesis and autoimmune psychosis and remaining challenges to assess and categorize mild neuroinflammation.

**Methods:** expert review

**Results:** Autoimmune Encephalitis presenting with exclusive psychiatric symptoms and all cases of Autoimmune Psychosis (international consensus criteria in Pollak et al, Lancet Psychiatry, 2020) match the proposed ME criteria (Bechter 2001 & 2013). Majority of these cases of an autoimmune type of ME are well treatable with immune modulatory treatments. It remained unclear, whether CNS antibodies are causal or contributive by shaping the observed clinical syndrome. The increasing evidence of mild neuroinflammation present in considerable subgroup of schizophrenia or psychosis spectrum cases from ongoing clinical studies, including CSF (Bechter et al 2010, Endres et al 2018, 2020, aso.) and neuroimaging plus the observed clinical improvement with immune modulatory therapies, strongly support ME hypothesis, potentially even in considerably larger subgroup of SMDs, supported by brain biopsy (Najjar et al, several papers) and post mortem studies (Bogerts et al group, Weickert et al group, several papers).

**Conclusions:** Beyond ME even more refined categories of mild neuroinflammation, including parainflammation (proposed by Medzhitov 2008) and neuroprogression (proposed by Berk et al 2010/11) need to be considered in further research on the possible role of mild neuroinflammation in SMDs (Bechter 2020, Frontiers Psychiatry).

**Disclosure:** No significant relationships.

**Keywords:** Mild encephalitis; autoimmune psychosis; immune therapies; neuroinflammation

### EPV1102

#### Immune regulatory gene polymorphisms, frequent cannabis use, and psychosis: implications to Treg hypofunction

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**Introduction:** We have previously shown that the association between frequent cannabis use and psychosis is more likely in subgroups with low-grade inflammation than subgroups without (PMID: 33736715). The role of immune-related polymorphisms remains unknown.

**Objectives:** To explore whether polymorphisms affecting the function of key immune regulatory proteins moderate the association between cannabis and psychosis, namely: *ENTPD1* and *NT5E*, involved in the synthesis of CD39, CD73, respectively, and anti-inflammatory adenosine; *CTLA4* and *FOXP1*, essential for Treg functional capacity.

**Methods:** We genotyped blood samples from 283 community-based controls and 140 recent-onset psychosis patients in Brazil (EU-GEI consortium, Ribeirão Preto/SP) for twelve polymorphisms (*ENTPD1*: rs3814159, rs3176891, rs10748643; *NT5E*: rs9444348, rs2295890; *CTLA4*: rs3087243, rs231775, rs5742909, rs4553808; *FOXP1*: rs6803008, rs6786408, rs830599; Illumina Human Core Exome-24). Cannabis frequency (daily, less than daily, never) was assessed by self-report (Cannabis Experience Questionnaire). Binary logistic regression models (OR,95%CI) included case status as the outcome, genotype (dominant model), cannabis frequency, and an interaction term between the two as exposure, adjusting for confounders (age, sex, ethnicity, tobacco smoking).

**Results:** We found significant interactions between cannabis use and polymorphisms for *ENTPD1* (rs3814159), *NT5E* (rs9444348), and *FOXP1* (rs6786408). Less than daily or daily use were, in a dose-response fashion, only associated with psychosis in those with the variant and heterozygous genotypes; less than daily: *ENTPD1* AG/GG (3.34,1.71-6.50); *NT5E* AG/AA (3.71,1.87-7.33); *FOXP1* AC/CC (2.98,1.54-5.77); daily: *ENTPD1* AG/GG (16.81;5.89-47.96); *NT5E* AG/AA (21.20,6.81-66.01); *FOXP1* AC/CC (13.75,5.22-36.21).

**Conclusions:** Variation in genes that affect Treg function appears to modify the effect of cannabis consumption on psychosis in keeping with Treg hypofunction hypothesis (PMID:33713699).

**Disclosure:** No significant relationships.

**Keywords:** Psychosis; Adenosine; Cannabis; Immune system