S454 E-Poster Presentation

#### **EPP0956**

# Post-traumatic stress disorder after first-episode psychosis

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**Introduction:** A psychotic episode may be sufficiently traumatic to induce symptoms of post-traumatic stress disorder (PTSD), which could impact outcomes in first-episode psychosis (FEP). Yet, post-traumatic stress disorder is often left untreated and undiagnosed in the presence of psychosis.

**Objectives:** To conduct a short review of literature on the prevalence and impact of PTSD after FEP.

**Methods:** We performed a literature search on PUBMED, using the query: "Stress Disorders, Post-Traumatic" [Mesh] AND "first episode" AND "psychosis". We focused on data from systematic reviews, clinical trials and meta-analysis published on last 10 years, either in English or Portuguese.

Results: Approximately one in two people experience PTSD symptoms and one in three experience full PTSD, following a FEP. Prevalence may be higher in affective psychosis, inpatient samples and patients previously suffering from depression and anxiety. PTSD Symptom Scale – Self-Report (PSS-SR) can be a useful screening instrument, but there is no established evidence-based intervention for PTSD in people with FEP. Coercive intervention such as involuntary hospitalization, seclusion, restraint or being forced to take medication, as well as being around sick or anxious patients, can be upsetting and traumatizing.

**Conclusions:** Our data showed high rates of psychosis-related PTSD. To prevent PTSD, conditions of hospitalization should be optimized and the use of coercive treatments should be limited. Subjects with recent-onset psychosis should be screened for PTSD symptoms. Evidence-based interventions to treat PTSD symptoms in the context of FEP are needed to address this burden and improve outcomes.

**Keywords:** psychosis; first episode; post-traumatic stress disorder; trauma

# **Precision psychiatry**

### **EPP0955**

Vasopressin surrogate marker copeptin as a potential novel endocrine biomarker for antidepressant treatment response in major depression: A pilot study

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**Introduction:** Major depressive disorder (MDD) constitutes the leading cause of disability worldwide. Although efficacious antidepressant pharmacotherapies exist for MDD, only about 40-60% of

the patients respond to initial treatment. However, there is still a lack of robustly established and applicable biomarkers for antidepressant response in everyday clinical practice.

**Objectives:** This study targets the assessment of the vasopressin (AVP) surrogate marker Copeptin (CoP), as a potential peripheral hypothalamic-level biomarker of antidepressant treatment response in MDD.

Methods: We measured baseline and dynamic levels of plasma CoP along with plasma ACTH and cortisol (CORT) in drug-naive outpatients with MDD before and after overnight manipulation of the hypothalamic-pituitary-adrenal (HPA) axis [i.e., stimulation (metyrapone) and suppression (dexamethasone)] on three consecutive days and their association with treatment response to 4 weeks of escitalopram treatment.

**Results:** Our findings suggest significantly higher baseline and post-metyrapone plasma CoP levels in future non-responders, a statistically significant invert association between baseline CoP levels and probability of treatment response and a potential baseline plasma CoP cut-off level of above 2.9 pmol/L for future non-response screening. Baseline and dynamic plasma ACTH and CORT levels showed no association with treatment response.

Conclusions: This pilot study provide first evidence in humans that CoP may represent a novel, clinically easily applicable, endocrine biomarker of antidepressant response, based on a single-measurement, cut-off level. These findings, underline the role of the vasopressinergic system in the pathophysiology of MDD and may represent a significant new tool in the clinical and biological phenotyping of MDD enhancing individual-tailored therapies.

**Keywords:** biomarker; hypothalamus-pituitary-adrenal (HPA) axis; antidepressant response; Depression

## **EPP0956**

The influence of concentration of micro-rna hsa-mir-370-3p and CYP2D6\*4 on equilibrium concentration of mirtazapine in patients with major depressive disorder

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**Introduction:** Mirtazapine is commonly prescribed to patients diagnosed with major depressive disorder. Some proportion of these patients do not show adequate response to treatment regimen containing mirtazapine, whereas many of them experience dosedependent adverse drug reactions.

**Objectives:** The objective of our study was to investigate the influence of 1846G>A polymorphism of the CYP2D6 gene on the concentration/dose indicator of mirtazapine, using findings on enzymatic activity of CYP2D6 and on CYP2D6 expression level obtained by measuring the hsa-miR-370-3p plasma levels in patients suffering from recurrent depressive disorder.

Methods: Our study included 192 patients with major depressive disorder. Treatment efficacy was evaluated using the international psychometric scales. For genotyping and estimation of the microRNA plasma levels we performed the real-time polymerase chain reaction. The activity of CYP2D6 was assessed with HPLC-MS/MS method by the content of the endogenous