

## EPP0214

## Exploring DNA methylation within the CYP17A gene as a potential mediator between childhood adversity and stress-related phenotypes in schizophrenia

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**Introduction:** Stress caused by childhood adversity (CA) is known to contribute to schizophrenia risk and symptoms. Its effects might be mediated by epigenetic mechanisms, specifically DNA methylation (meDNA) within relevant genes, and predominantly influence the hippocampus and prefrontal cortex (PFC). *CYP17A1* is a candidate, as it situates within a schizophrenia risk locus and is involved in glucocorticoid synthesis.

**Objectives:** To explore meDNA within *CYP17A* and its relations to hippocampus- and PFC-dependent schizophrenia symptoms: depression and deficits of declarative memory and executive functions.

**Methods:** We assessed meDNA at each CpG within a *CYP17A* fragment (chr10:104594471-104595887, hg19) in blood of 66 schizophrenia patients using the third-generation sequencing. Immediate memory, depression, cognitive shifting and cognitive inhibition (CI) were assessed with the RAVLT, PANSS, TMT-B and Stroop word-color test, respectively. ANCOVA and regression models adjusted for sex and age were applied to explore the relations between the phenotypes, local haplotype, meDNA and CA, defined as the presence of parental alcoholism or psychiatric illness.

**Results:** MeDNA at CpG-SNP rs3781286 correlated with CI (corrected  $p=0.01$ ). However, there were no main or interaction effects of CA either on meDNA at this site or on CI. Both CI and meDNA associated with haplotype, but subsequent analysis showed that meDNA did not mediate the relation between haplotype and CI.

**Conclusions:** Our findings suggest that *CYP17A* associates with PFC-dependent cognitive deficits in schizophrenia but did not support the hypothesis that CA plays a role in this association via meDNA or any other mechanism. Grant support: 21-15-00124/Russian Science Foundation <https://rscf.ru/project/21-15-00124/>.

**Disclosure:** No significant relationships.

**Keywords:** schizophrenia; DNA methylation; CYP17A gene; childhood adversity

## EPP0213

## The impact of the oxytocin receptor gene (OXTR) on facial affect recognition in psychosis

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**Introduction:** Oxytocin is considered as potential treatment targeting social dysfunctions in psychoses. However, results of clinical

trials are inconsistent which may be due to genetic variation in the oxytocin system involved in social information processing.

**Objectives:** To examine the effect of the *OXTR* polymorphism and its interaction with childhood adversity (CA) on facial affect recognition (FAR) in psychotic patients.

**Methods:** Patients with schizophrenic and affective psychotic disorders ( $n=934$ ) completed a task that required labeling six basic and three social emotions. The polymorphisms rs53576 and rs7632287 within the *OXTR* locus were genotyped and dichotomized based on prior research. For 65% of the sample, information on CA defined as parental alcoholism or psychiatric illness was collected. The polymorphisms' role in FAR was assessed using ANCOVAs adjusted for sex, age, and diagnosis.

**Results:** After Bonferroni correction, there was a significant effect of rs53576, mainly driven by the difference between genotypes in the affective patients. GG-homozygotes recognized emotions better than A-allele carriers. A nominally significant effect in the expected direction was also found for rs7632287. CA influenced FAR but did not interact with any genotype.

**Conclusions:** The results provide further evidence that *OXTR* impacts social cognition and behavior in diverse cohorts, including psychotic patients, with rs53576 GG-homozygotes having enhanced social competencies. However, we have failed to confirm that *OXTR* modulates the relations between CA and FAR in psychosis. The difference in FAR between genotypes was more pronounced in affective patients, which might be due to more severe FAR deficits in schizophrenia.

**Disclosure:** No significant relationships.

**Keywords:** oxytocin receptor gene; social emotions; schizophrenia; Psychosis

## EPP0214

## From Akute Primäre Verrücktheit to Bouffée Delirante: The background of Acute Transient Psychosis

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**Introduction:** Ever since the end of the 19th century that descriptions of acute and transient psychosis (ATP) have been found in the literature. Psychiatrists from different countries gave different names for these types of episodes, throughout the ages. Those early descriptions were an important part of the development of the concept of acute and transient psychotic disorders (F23: ICD-10).

**Objectives:** This review aims to provide historical background of the development of different concepts to describe ATP.

**Methods:** Non-systematic review of literature on acute and transient psychotic disorders, bouffée delirante, brief psychotic disorder, atypical psychosis.

**Results:** In 1876, K. Westphal introduced the term *akute primäre Verrücktheit*, referring to a sudden paranoia associated with delusion ideas and hallucinations. In 1895, Magnan described *Bouffée*