

## EPP0214

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

M. Alfimova, N. Kondratyev, A. Golov, M. Gabaeva, V. Plakunova and V. Golimbet\*

Mental Health Research Center, Clinical Genetics Laboratory, Moscow, Russian Federation

\*Corresponding author.

doi: 10.1192/j.eurpsy.2022.517

**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

V. Mikhailova, M. Alfimova, T. Lezheiko, M. Gabaeva, V. Plakunova and V. Golimbet\*

Mental Health Research Center, Clinical Genetics Laboratory, Moscow, Russian Federation

\*Corresponding author.

doi: 10.1192/j.eurpsy.2022.518

**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

J. Romão\*, M. Gonçalves, R. André, F. Félix, R. Saraiva and M. Abreu

Centro Hospitalar Universitário Lisboa Norte, Psychiatry, Lisboa, Portugal

\*Corresponding author.

doi: 10.1192/j.eurpsy.2022.519

**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*

*delirante*, characterized by a recurrent, sudden psychosis with polymorphic symptoms. Later (1924), the term cycloid psychosis was introduced by K.Kleist: phasic psychosis with good prognosis. Different concepts appeared throughout history: psychogenic psychosis (Wimmer,1916); atypical psychosis (Mitsuda,1942), holodisfrenia (Barahona,1957). Nowadays, the classification systems include many of these concepts in the same categories: Schizophreniform disorder, Brief psychotic disorder (DSM-5), and ATP (F23 in ICD-10).

**Conclusions:** All throughout the History of Psychiatry, there was an evolution of concepts associated to ATP. They were strongly influenced by different time epochs. It is important to have context on the historical background of the concepts used in the contemporary Psychiatry. Diagnosis is challenging due to their heterogeneous presentation. There are not many studies available, because of ATP's low diagnostic stability.

**Disclosure:** No significant relationships.

**Keywords:** acute transient psychosis; atypical psychosis; bouffée délirante; cycloid psychosis

## EPP0215

### Therapeutic drug monitoring of LAI antipsychotics as a predictor of clinical relapse: a one-year follow-up

G. D'Anna\*, F. Rotella, A. Ballerini and V. Ricca

University of Florence, Department Of Health Sciences, Florence, Italy

\*Corresponding author.

doi: 10.1192/j.eurpsy.2022.520

**Introduction:** Clinical relapses in schizophrenia remain a frequent event. Long-acting injectable (LAI) antipsychotics enhance adherence, but low blood levels can sometimes be observed despite an adequate posology. Nonetheless, the evaluation of this parameter is uncommon in clinical practice.

**Objectives:** To explore the potential advantages of therapeutic drug monitoring (TDM) of LAIs as a predictor of relapse in clinically stable outpatients with schizophrenia.

**Methods:** 44 individuals who had reached the pharmacokinetic steady state of LAI treatment (paliperidone, olanzapine, aripiprazole) underwent an anamnestic and psychopathological assessment. LAI blood levels were measured using liquid chromatography-mass spectrometry and classified as "in range" or "under range" according to the *Arbeitsgemeinschaft für Neuropsychopharmakologie und Pharmakopsychiatrie* (AGNP) guideline values. Individuals who relapsed during the one-year follow-up were compared to non-relapsers (Fisher's exact test,  $\chi^2$  or Mann-Whitney U). An exploratory binary logistic regression tested the role of other possible relevant predictors of relapse.

**Results:** No differences were observed in baseline use of mood stabilisers ( $p=0.211$ ), antidepressants ( $p=0.530$ ), or prescribed LAI ( $p=0.563$ ). Other comparisons are presented in the table: among these variables, in-range LAI levels were the only significant predictor of relapse ( $F=5.95$ ,  $p=0.015$ ; OR 0.04, 95%CI 0.02-0.56).

	Relapse (n=6)	No relapse (n=38)	p
Age (years)	41.33±10.78	43.95±12.98	0.667
Male	4 (66.7%)	21 (55.3%)	0.600
Illness duration (years)	21.83±2.64	19.13±11.82	0.289
Previous acute episodes	3.50±1.05	3.29±1.47	0.652
PANSS-total	49.33±14.83	42.74±14.14	0.231
In-range LAI	2 (33.3%)	32 (84.2%)	0.006

**Conclusions:** TDM of LAIs may optimise the clinical management of schizophrenia by highlighting a suboptimal dosage and a consequent higher relapse risk. Large-scale, drug-specific assessments are needed to confirm these findings.

**Disclosure:** No significant relationships.

**Keywords:** schizofrenia; LAI; Relapse; Therapeutic drug monitoring

## EPP0216

### Screen to Intervene; establishing a dedicated metabolic clinic for patients with chronic mental illness in an Irish Metal Health Service

M. Usman<sup>1\*</sup>, F. Saleem<sup>2</sup>, B. Mcafferty<sup>3</sup>, J.H.P. Tan<sup>4</sup>, M. Zubir<sup>5</sup> and D. Adamis<sup>6</sup>

<sup>1</sup>St James's Hospital Dublin, Liaison Psychiatry For Elderly, Dublin, Ireland; <sup>2</sup>Mayo University Hospital, Psychiatry, Castlebar, Ireland; <sup>3</sup>Bayview Family Practice, Bundoran, Donegal., General Practice, Bundoran, Ireland; <sup>4</sup>Maudsley Hospital, Psychiatry, South London & Maudsley Nhs Foundation Trust, London, United Kingdom; <sup>5</sup>The Rotunda Hospital, Specialist Perinatal Mental Health Service, Dublin, Ireland and <sup>6</sup>Sligo Leitrim Mental Health Services, St. Columba's Hospital,, Psychiatry, Sligo, Ireland

\*Corresponding author.

doi: 10.1192/j.eurpsy.2022.521

**Introduction:** People with serious mental illness exhibit higher morbidity and mortality rates of chronic diseases than the general population.

**Objectives:** The aim of this study was to establish a dedicated clinic for patients with chronic mental illness to monitor physical health in accordance with best practice guidelines.

**Methods:** Patients were invited to attend the metabolic clinic. The following areas were examined: Personal and family history of cardiovascular disease, diet, exercise, smoking. Mental state examination, waist circumference, BP, pulse, ECG and BMI. Laboratory tests including U+E, LFTs, HbA1c, Lipid profile and other tests as appropriate such as serum lithium. AIMS scale, HoNOS and WHOQOL-BREF scales as additional indicators of global health.

**Results:** A total of 80 patients attended during 3.5 years of clinic. Mean age was 54.9 years (SD:13.81) at first contact and 45% were females. Mean years in the service was 19.66 (SD:11.54) and mean number of previous hospital admissions was 4.4 (SD:5.63). Metabolic syndrome was present in 42% at first assessment and 20% had at least