Conclusions: Both PANSS cognition factors show a moderate correlations with Speed of processing, Working memory, Attention/Vigilance and Verbal Learning assessed by MCCB. More discrete correlations were found with Visual Learning, Reasoning and Problem Solving, and with Social cognition (in fact, non-significant correlation with Wallwork´s cognitive factor was found).

Disclosure of Interest: None Declared

EPP0467

The polymorphism ZNF804A rs1344706 is differentially associated with negative symptoms domains in schizophrenia

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Introduction: Negative symptoms (NS) are an important clinical characteristic of schizophrenia. In recent years, clinical research on NS has focused on their clinical heterogeneity. Based on two-factor analysis, it has been proposed to divide NS into abulia-apathy (AA) and expressive deficit (ED) domains. A number of studies have shown that these domains have different effects on the clinical features of schizophrenia, which suggests different pathophysiological mechanisms of their development. Neurobiological differences between AA and DE have been identified in neuroimaging and immunological studies but there is less research on the genetic background of NS.

Objectives: To search for an association between the rs1344706 polymorphism of the zinc finger protein gene (ZNF804A) and the AA and ED subdomains. The rs1344706 polymorphism is one of the best-supported risk variants for schizophrenia. The risk genotype AA has been shown to be associated with clinical presentations of the disease.

Methods: The study included 1116 (741 (66.3% women) patients with schizophrenia. The diagnosis was made according to ICD-10 criteria (item F20). The average age of the patients was 38.4 (13.6) years, age at disease onset was 26.1 (10.6) years. NS were assessed with the PANSS. The PANSS-derived AA domain consisted of Emotional withdrawal (PANSS item N2), Apathetic social withdrawal (N4), Active social avoidance (G16). The DE domain included Blunted affect (N1), Poor rapport (N3), Lack of spontaneity (N6), Mannerism and posturing (G5), Motor retardation (G7), Disturbance of volition (G13). Genotyping of the ZNF804A rs1344706 polymorphism was carried out using HRM-PCR. ANOVA with genotype and sex as independent variables, and age at the time of disease manifestation and its duration as covariates was used. Post hoc tests were performed using Bonferroni correction.

Results: A significant effect of the rs1344706 polymorphism on the severity of symptoms in the AA domain was revealed (F=5.88, df=2, p=0.002). In carriers of the CC genotype, the severity of symptoms was significantly lower than in carriers of the AA genotype and the AC genotype (8.4(3.5), 9.4(7.4) and 8.8(3.5) points, respectively). This effect was independent of sex and was not mediated by age at onset or duration of disease. There was no effect of the rs1344706 polymorphism on the severity of symptoms in the ED domain.

Conclusions: The association of the ZNF804A rs1344706 (A/C) polymorphism with NS of schizophrenia has not been reported so far though some studies have found the effect of this polymorphism on PANSS positive symptoms and PANSS total score. The finding of the association with NS can be explained by the fact that the NS heterogeneity was taken into account in the present study.

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EPP0468

Rates of perinatal environment risk factors in schizophrenia patients with higher and lower schizophrenia polygenic risk scores

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Introduction: Understanding the relations between genetic (G) and environmental (E) factors in the development of schizophrenia is important for psychosis prevention. These relations may vary from G x E correlations to G x E interactions and independent additive effects of genetic load and environment. The G x E interactions mean that genetic variants associated with schizophrenia make an individual vulnerable to specific environmental exposures thus enhancing the risk of disease manifestation in those who possess such genetic variants. In the case of independent effects, environmental exposure might serve as the main cause or an additional to genetic load external trigger which is needed for the illness development. Thus, the rate of independent environmental risk factors is expected to be higher in patients with a lower genetic liability to schizophrenia.

Objectives: The study aimed to confirm this hypothesis by comparing schizophrenia patients with higher and lower polygenic risk scores for schizophrenia (SZ-PRS) on the rate of urbanicity, winter birth and obstetric complications (OC), as previous data suggested their independence from the genetic burden of the disease.

Methods: SZ-PRS were calculated for 861 patients with schizophrenia spectrum diagnoses (ICD-10, F2), predominantly of Slavic decent, based on the latest GWAS. For patients comprising the highest and lowest SZ-PRS deciles, information on the environmental risk factors was extracted from medical records. Each environmental factor was coded as present/absent. The presence were defined as being born in the most urban environment (a city's population > 5 million), in winter months and having at least one OC from a predefined list (Alfimova *et al.* Int J Mol Sci 2022; 23: 12629). In addition, hypoxia/asphyxia, and low birth weight were analyzed separately. Polyenviromental risk scores (PERS) aggregating the three factors were calculated using natural logarithms of the odds ratios (OR) from an umbrella review (Radua *et al.* World