SUBSTANCE-INDUCED PSYCHOSIS LINKED TO BOTH INFECTIONS AND SCHIZOPHRENIA

Hjorthoj, Carsten; Starzer, Marie; Benros, Michael; Nordentoft, Merete

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Factors with preadult multiple drug use \( (p = 1.12 \times 10^{-2.5}, OR = 243.6) \). Furthermore, preadult environmental risk accumulation strongly predicted onset of multiple drug use in adulthood (> 18 years; \( p = 6.27 \times 10^{-18}, OR = 19.4) \). The application of the novel genetic approach yielded 35 single-nucleotide variants (SNPs) that potentially confer susceptibility to preadult multiple drug use. Out of these, 14 were located in gene-coding regions. Interestingly, 9 of these genes are implicated in neuronal development/function or metabolite transport/transportation. Additional gene-based analyses identified another 4 genes relevant for metabolite transport/transportation as well as 4 genes that play a role in hypoxia signaling.

**Discussion:** The present results show that an accumulation of environmental risk factors during early life (< 18 years) is a strong predictor of multiple drug use during adolescence and later life. These findings suggest that exposure to accumulated environmental risk during early life is not only associated with violent aggression – as previously reported by our lab – but is also an important predictor of multiple drug use. Moreover, we present first evidence of a genetic susceptibility to preadult multiple drug use, which will benefit from future replication in suitable samples of patients with mental illness or the general population.

**T82. THE IMPACT OF SMOKING ON LIFE EXPECTANCY IN PSYCHOTIC DISORDERS, AN ELECTRONIC CASE REGISTER Cohort STUDY.**

Edward Chesney*, Deborah Robson¹, Rashmi Patel¹, Hitesh Shetty², Sol Richardson³, Chin-Kuo Chang⁴, Philip McGuire¹, Ann McNeill¹

¹Institute of Psychiatry, King’s College London; ²BRC Nucleus, South London and Maudsley NHS Foundation Trust; ³University of Taipei

**Background:** Schizophrenia, schizoaffective disorder and bipolar affective disorder are associated with a life expectancy at birth that is 10–20 years shorter than in the general population. The prevalence of cigarette smoking in people with these disorders is very high, but the extent to which this affects general health expectancy has not been previously examined. We aimed to investigate these issues using data from the South London and Maudsley NHS Foundation Trust.

**Methods:** Data on all patients with a diagnosis of schizophrenia, schizoaffective disorder or bipolar affective disorder from 1 January 2007 to 31st December 2018 was obtained. Smoking status was determined using unstructured text data extracted from electronic health records. Chi-squared analysis was used to calculate estimates of life expectancy at birth according to gender and most commonly recorded smoking status. Cox proportional hazards models were used to estimate mortality risk and adjusted for a broad range of demographic and clinical variables.

**Results:** 21,588 patients were included in the study of which 20,155 (93.4%) were classified as either smokers (16,717 [77.7%]) or non-smokers (3,438 [15.9%]). 2,434 (11.3%) participants died by the end of the observation period. Smoking status at first admission was related to mortality. Smoking was associated with a higher risk of death in both females \( (aHR = 1.42; 95\% CI: 1.21–1.66) \) and males \( (aHR = 1.49; 95\% CI: 1.25–1.79) \). Moreover, cigarette smoking is an under-researched phenomenon, and little is known about its etiology (other than exposure to substances) and long-term prognosis. In this presentation, we aim to present results from two recent studies, one of which was recently published and the other is currently in the process of being analyzed. The first study investigates rates and predictors of conversion from substance-induced psychosis; the second study investigates the association between severe infections and substance-induced psychosis, including the contribution of infections in conversion to schizophrenia.

**Methods:** Both studies utilized the nationwide Danish registers. In study 1, we included all people diagnosed with substance-induced psychosis from 1994 to 2014 \( (n=6,788) \). These were followed using the Kaplan-Meier method and Cox proportional hazards regression to estimate rates and predictors of conversion to schizophrenia or bipolar disorder. In study 2, we included the entire Danish population born since 1981 \( (n=2,256,779) \). These were followed in Cox proportional hazards regression models, linking hospital-requiring infections as time-varying covariates to development of substance-induced psychosis.

**Results:** Study 1: Overall, 32.2% \( (95\% CI 29.7–34.9) \) of patients with a substance-induced psychosis converted to either bipolar or schizophrenia-spectrum disorders. The highest conversion rate was found for cannabis-induced psychosis, with 47.4% \( (95\% CI 42.7–52.3) \) converting to either schizophrenia or bipolar disorder. Young age was associated with a higher risk of converting to schizophrenia. Self-harm was significantly linked to a higher risk of converting to both schizophrenia and bipolar disorder.

**Discussion:** Substance-induced psychosis is strongly associated with the development of severe mental illness, and a long follow-up period is needed to identify the majority of cases. Infections appear to play a role in the etiology of substance-induced psychosis which is very similar to the role infections play in the etiology of schizophrenia. This lends strong support to the existence of an immune-related component to psychosis in general, and not just to schizophrenia.

**T84. PREMORBID ADJUSTMENT AND IQ IN PATIENTS WITH FIRST-EPIsODE PSYCHOSIS: A MULTISITE CASE-CONTROL STUDY OF THEIR RELATIONSHIP WITH CANNABIS USE**

Abstract not included.

**T85. LIVING WITH PSYCHOSIS IN LATER LIFE**

Cherrie Galletly*, Shuichi Suetani², Duncan McKellar³, David J. Castle¹

¹The University of Adelaide; ²Queensland Centre for Mental Health Research; ³Older Persons’ Mental Health Service, Northern