Coronary artery calcification in people with schizophrenia

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stable on clozapine. Between examinations there will be no planned interference with the antipsychotic treatment, but antipsychotic treatment may be changed during the period in the intention to improve symptoms.
The primary longitudinal outcome is comparing changes in BBB-permeability along with symptom-fluctuations. This will be done by comparing changes in qAlb, which is the gold standard technique measuring the CSF:serum albumin ratio (QAlb).
Results: The study has been approved by the regional ethical committee and data collection will begin in 2020.
Discussion: We expect the obtained results will contribute to a better pathophysiological understanding about illness markers and their progression over time and in relation to functional outcome.

T11. CORONARY ARTERY CALCIFICATION IN PEOPLE WITH SCHIZOPHRENIA

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Background: Coronary artery disease (CAD) is one of the major causes of premature mortality in patients with schizophrenia. Coronary artery calcification (CAC) is an independent predictor of cardiac mortality and CAD in the general population, but has not yet been investigated in patients with schizophrenia. The aim of the present study is to compare CAC quantified by cardiac computed tomography (CT) in patients with schizophrenia to the general population.
Methods: Baseline data from an ongoing prospective cohort study including 200 patients with schizophrenia (ICD-10 diagnoses F20 or F25) diagnosed at least 10 years prior to inclusion (chronic group) and 86 patients with schizophrenia diagnosed within two years prior to inclusion (debut group). Patients in the debut group were matched 1:1 on age, gender and smoking status with psychiatrically healthy controls (PHC). All participants underwent cardiac CT and the CAC was quantified using Agatston Score. Mean CAC in the chronic group was compared to reference CAC scores whilst mean CAC in the debut group was compared to PHC. Information on cardiovascular risk factors, illness history, social and psychiatric conditions were obtained at baseline.
Results: Data is currently being analyzed and results will be presented at the Congress of International Schizophrenia Research Society.
Discussion: If the CAC quantified by CT in patients with schizophrenia differs from the PHC population, it might act as a tool for early detection of CAD in these patients. Thus, the findings of this study might contribute to preventive strategies in order to decrease cardiovascular mortality.

T12. THE RELATIONSHIP OF INTESTINAL PERMEABILITY FACTORS WITH SOCIODEMOGRAPHIC AND PHYSICAL HEALTH FACTORS AND PANSS SCORES IN SCHIZOPHRENIA PATIENTS AND HEALTHY CONTROLS

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Background: Recent studies have pointed to the gut-brain axis as a new venue for treatment of psychiatric disorders, with increased inflammation stemming from increased intestinal permeability to further affect brain functioning in a significant subset of patients. Yet, this line of research is still in its infancy, with multiple studies showing increased intestinal permeability in schizophrenia and bipolar disorders, demonstrated as translocation of food and bacterial antigens, as well as intestinal microbiome disturbances.
Methods: Therefore, we measured intestinal permeability markers soluble CD14 (sCD14) and lipopolysaccharide binding protein (LBP) in schizophrenia patients and healthy controls. Intestinal permeability markers were compared to several sociodemographic, including age, gender and BMI, and physical health variables, including CRP, glucose, cholesterol, triglycerides, HDL, LDL and non-HDL, and Positive and Negative Syndrome Scale (PANSS) scores. Of the control group (n = 43), 76.7% was male, with a mean age of 25.1 years. Of the schizophrenia group (n = 105) 75.2 % was male, with a mean age of 27.4 years and an average PANSS score of 57.2.
Results: Levels of LBP and sCD14 were not significantly different between schizophrenia patients and controls. LBP and sCD14 levels were neither correlated in the control group, nor in the schizophrenia group. In the control group Females had elevated LBP levels compared to males ($p < 0.01$), but not in the schizophrenia group. Quantitative levels of LBP, but not sCD14, correlated with triglycerides in the schizophrenia group ($R2 = 0.049$, $p < 0.05$). Furthermore, quantitative levels of sCD14, but not LBP, correlated with CRP in the schizophrenia group ($R2 = 0.078$, $p < 0.05$). Finally, LBP levels in patients correlated with PANSS negative scores ($R2 = 0.055$, $p < 0.05$). Neither a correlation of LBP and sCD14 with age, nor with BMI was observed in both the control and the schizophrenia group.
Discussion: In conclusion, these intestinal permeability markers showed few differences between the schizophrenia and the control group. We found weak, yet significant correlations with triglycerides, CRP and severity of negative symptoms, which may be caused by poor eating habits or metabolic syndrome leading to leaky gut in the more severely affected patients. These results are not in line with results of Severance et al. (2013), who performed a similar analysis and found differences in intestinal permeability markers between a control group and a schizophrenia group. Furthermore, they did observe a positive correlation between sCD14 and LBP in both the control and the schizophrenia group. The difference between that study and our current findings may stem from the different patients samples, as we assessed patients in their first five years after diagnosis, when metabolic syndrome was less abundant.

T13. CORNEAL CONFOCAL MICROSCOPY DETECTS NEURAL CHANGES IN SCHIZOPHRENIA

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Background: A combination of neurodevelopmental and degenerative neural changes are likely to underpin positive and negative symptoms in schizophrenia. However, there are currently no validated biomarkers to accurately quantify the extent of neural changes in schizophrenia.
Corneal confocal microscopy (CCM) is a non-invasive ophthalmic imaging technique that has been used to demonstrate in vivo corneal nerve fiber abnormalities in a range of peripheral neuropathies and central neurodegenerative disorders including Parkinson's disease, multiple sclerosis and dementia.
We wished to test the hypothesis that corneal nerve abnormalities occur in patients with schizophrenia, particularly those with negative symptoms and cognitive impairment.
Methods: Patients with DSM-V schizophrenia without other causes of peripheral neuropathy other than metabolic syndrome underwent assessment