

Cognitive Performance in Drug-naïve First Episode Schizophrenia (FES) Patients

H. Fatouros-Bergman¹, C. Cervenka¹, L. Flyckt¹, G. Edman², L. Schwieler³, P. Ikonen¹, K. Collste¹, F. Piehl¹, I. Agartz⁴, G. Engberg³, S. Erhardt³, L. Farde¹

¹Department of Clinical Neuroscience Centre for Psychiatric Research, Karolinska Institutet, Stockholm, Sweden ; ²Department of Neurobiology Care Sciences and Society Centre of Family Medicine - CeFAM, Karolinska Institutet & Department of Psychiatry Tiohundra AB, Stockholm, Sweden ; ³Department of Physiology and Pharmacology, Karolinska Institutet, Stockholm, Sweden ; ⁴Jebsen Centre for Psychosis Research Oslo University Hospital & Institute of Clinical Medicine University of Oslo & Department of Psychiatric Research Diakonhjemmet Hospital ., University of Oslo, Oslo, Norway

Introduction: A majority of the studies on cognition in schizophrenia have been conducted in drug-treated patients. In healthy subjects, administration of antipsychotic medication has been found to have a negative impact on cognitive performance in domains such as speed of processing and attention. Antipsychotic drugs occupy the D2-dopamine receptor, a receptor subtype that has been related to cognitive function. Studies employing Positron Emission Tomography have shown that poor performance in several cognitive domains is associated to low D2-receptor binding. It is therefore crucial to examine cognition in drug-naïve patients with schizophrenia.

Objectives: In FES patients: To examine the profile of cognitive impairments in the absence of antipsychotic medication and compare with the cognitive profile of patients who are on antipsychotic medication.

Aims: To study cognition in FES.

Methods: The Measurement and Treatment Research to Improve Cognition in Schizophrenia (MATRICS) battery was administered to 60 patients with early schizophrenia and 30 healthy controls, 50% of the patients were drug-naïve. This research is ongoing and a part of the Karolinska Schizophrenia Project (KaSP), a multidisciplinary research consortium that examines the pathophysiology of schizophrenia.

Results: Preliminary findings show that patients perform worse than healthy controls in all cognitive domains, with no significant differences between drug-naïve and medicated patients. Attention and Visual memory were the domains with the greatest impairments. The results are compared with our previous meta-analytic findings in drug-naïve patients.

Conclusion: These preliminary findings confirm the existence of cognitive impairments at the early stage of schizophrenia in the absence of antipsychotic medication.