[3] *Stockholm Center for Public Health, Karolinska University Hospital, Stockholm, Sweden* [4] *Research & Development Unit, Department of Psychiatry, Danderyd University Hospital, Danderyd, Sweden* [5] *Clinical Epidemiology Unit, Department of Medicine, Karolinska Institutet, Stockholm, Sweden* [6] *Department of Biomedical Science, Center of Excellence, Florida Atlantic University, Boca Raton, FL, USA* [7] *Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden*

Background: Several studies from different countries demonstrate that cardiovascular mortality is the main cause of death for schizophrenia patients as well as for the population although patients with schizophrenia have a doubled cardiovascular mortality risk. The general population of Sweden has during recent years experienced remarkable declines in mortality from cardiovascular disease resulting in increased overall life expectancy. It is unclear whether patients with schizophrenia have experienced these benefits.

Methods: Standardized mortality ratios (SMR) for schizophrenia patients in Sweden during 1970 through 2003 were analyzed, using data from national registers on diagnosis and causes of death. Secular trends for SMR were calculated in Poisson regression models.

Results: SMR was for schizophrenia patients for all causes of death 2.33 for men and 2.35 for women, cardiovascular death 2.08 for men and 2.15 for women, coronary heart disease 1.91 for men and 2.06 for women, and for myocardial infarction 1.75 for men and 1.86 for women. Age-standardized mortality ratios for schizophrenia patients increased significantly ($p<0.001$) for both men and women for all causes of death, cardiovascular disease, coronary heart disease and acute myocardial infarction. Among schizophrenia patients, there were 3,410 excess deaths from cardiovascular causes.

Conclusion: The substantial improvements in recent years in mortality from cardiovascular disorders in the general population were not observed among patients with schizophrenia. For the medical care system and for psychiatry the increasing differences in mortality from cardiovascular disease between the general population and patients with schizophrenia are a major clinical and public health concern.

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Quantitative EEG in three pharmacological models of psychosis

T. Palenicek [1], M. Fujakova [1], M. Kutova [1], M. Brunovsky [2], V. Bubenikova-Valesova [1], J. Horacek [3]. [1] *Laboratory of Biochemistry and Brain Patophysiology, Prague Psychiatric Center, Prague, Czech Republic* [2] *Laboratory of EEG and Clinical Neurophysiology, Prague Psychiatric Center, Prague, Czech Republic* [3] *Center of Neuropsychiatric Studies, Prague Psychiatric Center, Prague, Czech Republic*

The analysis of quantitative EEG (EEG power spectra and EEG coherence) in three pharmacological models of psychosis (ketamine 9 and 30 mg/kg i.p., amphetamine 1 and 4 mg/kg i.p. and 2C-B 10 and 50 mg/kg s.c.) in freely moving rats was performed. To verify that drugs are behaviorally active at doses we used, we have also analyzed locomotor activity and prepulse inhibition (PPI) of acoustic startle reaction. Male Wistar rats, b.w 200 – 300g were used in all experiments. Locomotion was registered in the open field test (Ethovision) and measurement of PPI was performed in a SR-LAB startle chamber. For the EEG study, rats were stereo-tactically implanted with 14 silver electrodes (12 active). EEG was recorded using a 21-channel BrainScope amplifier system and analyzed with Neuroguide Deluxe software v. 2.3.7. All drugs produced behavioral changes, hyper or hypolocomotion and/or deficits in the PPI, and induced specific changes in EEG spectra. EEG coherences massively increased in the ketamine model, on the contrary in amphetamine only a few changes have been observed. 2C-B had biphasic effect with mainly predominant decrease in fronto-temporal coherence initially, followed by reversal of these effects. EEG coherence revealed an overall increase in cortical functional connectivity after ketamine, on the contrary only a few changes, mainly a decrease, in the connectivity in the amphetamine model. The initial decrease in fronto-temporal coherence after 2C-B is similar to what has been frequently described in schizophrenics.

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Serum lipid levels in schizophrenia and bipolar disorder relapse

D. Kontis, R.M. Psaras, S. Papadopoulos, E. Lia, G. Papageorgiou, S. Teperidis, C. Karouzos. *1st Psychiatric Department, Psychiatric Hospital of Attica, Athens, Greece*

Background: Schizophrenia and bipolar disorder are both associated with increased levels of serum lipids compared to healthy controls. However, it is not clear whether patients with schizophrenia differ from bipolar patients in terms of serum lipid concentrations and hyperlipidemia rates.

Methods: The serum lipid levels of 160 patients with schizophrenia and 41 patients with bipolar disorder (manic episode), consecutively admitted in an acute psychiatric ward during a 2-year period, were assessed.

Results: There was no significant difference in serum cholesterol, high-density lipoproteins, low-density lipoproteins or triglycerides levels between the two groups of patients, after controlling for age. A considerable rate of schizophrenia patients demonstrated high cholesterol levels (>200mg/dl; 45.6%), whereas 15.6% of them had elevated triglyceride levels (>150 mg/dl). In bipolar patients, the rates for both

hypercholesterolemia and hypertriglyceridemia were 29.3%. The above rates did not differ significantly between the two groups of patients.

Conclusions: Acutely hospitalized patients with schizophrenia and bipolar disorder did not differ in serum lipid concentrations and hyperlipidemia rates.

P0189

Plasma antioxidants in schizophrenia and manic relapse

D. Kontis, R.M. Psaras, E. Lia, S. Papadopoulos, E. Baka, S. Makri, C. Karouzos. *1st Psychiatric Department, Psychiatric Hospital of Attica, Athens, Greece*

Background: There is evidence of an abnormal antioxidant defence system in schizophrenia. No such evidence exists for bipolar disorder.

Aim: To compare plasma antioxidant levels between patients with a relapse of schizophrenia or bipolar disorder (manic episode).

Methods: The serum levels of uric acid and bilirubin were assessed in 160 patients with schizophrenia and 41 patients with bipolar disorder, consecutively admitted in an acute psychiatric ward during a 2-year period.

Results: Uric acid plasma levels were lower in patients with schizophrenia compared to bipolar patients ($p=0.024$), after adjusting for age. This difference was observed in male patients, while no significant difference was noted in females. The two groups did not

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