

<sup>3</sup> *Stockholm Center for Public Health, Karolinska University Hospital, Stockholm, Sweden* <sup>4</sup> *Research & Development Unit, Department of Psychiatry, Danderyd University Hospital, Danderyd, Sweden* <sup>5</sup> *Clinical Epidemiology Unit, Department of Medicine, Karolinska Institutet, Stockholm, Sweden* <sup>6</sup> *Department of Biomedical Science, Center of Excellence, Florida Atlantic University, Boca Raton, FL, USA* <sup>7</sup> *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.

## P0187

Quantitative EEG in three pharmacological models of psychosis

T. Palenicek<sup>1</sup>, M. Fujakova<sup>1</sup>, M. Kutova<sup>1</sup>, M. Brunovsky<sup>2</sup>, V. Bubenikova-Valesova<sup>1</sup>, J. Horacek<sup>3</sup>. <sup>1</sup>*Laboratory of Biochemistry and Brain Patophysiology, Prague Psychiatric Center, Prague, Czech Republic* <sup>2</sup>*Laboratory of EEG and Clinical Neurophysiology, Prague Psychiatric Center, Prague, Czech Republic* <sup>3</sup>*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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## P0188

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 ( $>200\text{mg/dl}$ ; 45.6%), whereas 15.6% of them had elevated triglyceride levels ( $>150\text{mg/dl}$ ). 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

significantly differ in plasma bilirubin concentrations. In patients with schizophrenia, uric acid concentrations positively correlated with bilirubin levels (Spearman  $\rho=0.205$ ,  $p=0.012$ ), while no correlation between these two antioxidants was found in bipolar patients.

**Conclusions:** Our findings suggest that acutely admitted patients with schizophrenia have lower plasma uric acid levels, but do not differ in bilirubin levels compared to bipolar patients.

## P0190

Use of functional rating scales in clinical practice

E. Papatomas, R. Anagnosti. *The Coast Resource Centre, Weston-Super-Mare, UK*

The Personal and Social Performance scale (PSP) is used to measure functioning. It is a 100-item scale subdivided into ten intervals and covers four domains: social activities (eg work and study), interpersonal relationships, self-care and behavioural problems. Minimal training is required to use the PSP and operational rating criteria for the domains are well defined. The PSP is reported to be relatively simple and quick to conduct and has been shown to have good validity and inter-rater reliability<sup>1</sup>. Possible limitations of the PSP include that it does not assess suicide risk and is still relatively new although experience with it is growing.

The aim of this study is to gain experience with the PSP in clinical practice by measuring the effect of risperidone long-acting injection (RLAI) on functioning. Data was also collected on hospitalisation.

Eleven patients with psychosis have been assessed with a mean age of 39.9 years (range 20–62). The average dose of RLAI was 39.8mg and the average duration of treatment was 20.1 months. Seven patients had no reported side-effects on RLAI.

The number of hospital admissions decreased by 50% during treatment with RLAI, and the number of days in hospital decreased by 11.9%. All patients experienced improved levels of functioning as measured by the PSP despite some residual symptoms identified by Mental State Examination (MSE).

The PSP was quick and easy to learn and use in routine clinical practice. Treatment with RLAI was found to have a positive effect on functioning and was generally well tolerated.

## P0191

Comparative efficacy and tolerability of intramuscular/oral ziprasidone versus haloperidol: Clinical findings in Asian and foreign patients with acute schizophrenia

B. Parsons<sup>1</sup>, C. Siu<sup>2</sup>, G. Cohen<sup>1</sup>. <sup>1</sup> *Pfizer Inc., New York, NY, USA*  
<sup>2</sup> *Data Power (DP), Inc., Ringoes, NJ, USA*

**Background and Aims:** Second-generation antipsychotics (SGAs) have emerged as front-line treatment for many psychotic conditions due to reduced risk in extrapyramidal side effects (EPS) and related movement disorders. Available randomized, efficacy and tolerability data comparing conventional and SGA agents in Asian patients with acute exacerbation of schizophrenia are, however, limited.

**Methods:** Our objective was to compare IM/oral ziprasidone (N=130) versus haloperidol (N=122) in a 6-week, randomized study of acute schizophrenia, conducted in 6 Asian countries/districts (Hong Kong, Malaysia, Philippines, Singapore, Taiwan, and Thailand). This study replicated an identically designed randomized trial conducted in Europe and South America (79% Caucasian, (N=600) (1).

**Results:** At the end of IM treatment ( $\leq 3$  days), mean change in BPRS total score was -7.7 in the ziprasidone group compared with -

5.8 in the haloperidol ( $p=0.066$ ), and the magnitude of treatment difference (LS mean -1.9; 95%CI [-3.9, 0.1]) was similar to that observed in (1) (LS mean -2; 95%CI [-3.3, -0.8]). At endpoint, between-group differences in BPRS total score, CGI-S and COVI scores were not significant ( $p>0.74$ ). Ziprasidone was significantly superior to haloperidol in movement disorder related measures (ESRS and Barnes Akathisia Scales) and EPS adverse event rates (4.6% vs. 22%, respectively, in the IM phase; 20% vs. 61%, respectively, in the IM and oral phases).

**Conclusions:** These findings demonstrate consistent efficacy and tolerability advantages of ziprasidone over haloperidol in different ethnic groups, and support the use of bridging evidence from foreign studies for Asian patients with schizophrenia.

Reference:

1. Brook et al. (2005) *Psychopharmacology* 178:514-523.

## P0192

Factors that influence duration of hospital treatment of psychotic patients

A.M. Petrovic, N.S. Djokic, D.V. Vukic. *Female Admission Department, Special Psychiatric Hospital, Nis, Serbia*

Since the hospital treatment has the influence on the reduction of quality of life of mentally ill patients, the intention of contemporary psychiatric management would be to provide appropriate psychiatric assistance and to reduce hospital treatment as much as possible. Current treatment of mentally ill in Serbia is conducted in conditions of insufficiently developed community psychiatric treatment. Therefore, the aim of this research was to investigate the causes which led to extended treatment of in hospital patients on 'Acute psychoses department of Special psychiatric clinic', which is one among the five biggest psychiatric hospitals in Serbia. Duration of in hospital treatment was analyzed in 298 female patients who were consecutively admitted to the department within one year period, with regard to clinical, demographic, social and economical factors. Obtained results show that among the type and severity of disease, the critical role of extension of in hospital treatment play, some demographic, social and economic factors as well. Results gained were discussed in detail during the research.

## P0193

Social skills and neurocognitive individualized training in patients with schizophrenia

G. Piegari<sup>1</sup>, S. Galderisi<sup>1</sup>, A. Mucci<sup>1</sup>, A. Acerra<sup>2</sup>, L. Luciano<sup>3</sup>, F. Santucci<sup>3</sup>, M. Volpe<sup>3</sup>, A. Valente<sup>3</sup>, A.F. Rabasca<sup>2</sup>, P. Mastantuono<sup>3</sup>, M. Maj<sup>1</sup>. <sup>1</sup> *Department of Psychiatry, University of Naples SUN, Naples, Italy* <sup>2</sup> *Mental Health Department, Avellino, Italy* <sup>3</sup> *Mental Health Department, Benevento, Italy*

Several studies provided evidence that relationship of cognitive impairment with social functioning is stronger than that of psychopathology. In a group of 88 subjects with schizophrenia or schizoaffective disorders we found that verbal memory, executive function and sustained attention indices explained 19.9% of the global disability variance, while negative symptoms explained 4.4% of the variance.

Based on these data our group designed an individualized rehabilitation program including two one-hour sessions of computerized cognitive training and one two-hour session of social skills training per week (Social Skills And Neurocognitive Individualized Training, SSANIT).