and gender and we found no significant effect of smoking and type of antipsychotic medication, when comparing particular subgroups of schizophrenic patients.

P0183

Gender differences in involuntary treated patients with schizophrenia

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Background and Aims: Available evidence suggests that, compared with women, men have earlier age of onset of schizophrenia, poorer course and medication response, fewer affective symptoms and worse premorbid social and intellectual functioning. However there is a lack of data concerning gender differences in patients treated against their will.

Methods: 54 male and 65 female patients, who met the criteria for an F2 disorder according to the ICD-10 at the admission were included. They were assessed three times, in the first week and at the end of first and third month after admission. A broad range of structured assessment instruments has been used to assess psychopathology, social functioning, subjective quality of life, perceived coercion concerning admission, satisfaction with the treatment, socio-demographic characteristics, etc.

Results: The results indicates that there is no significant difference when comparing changes in total scores in psychopathology, satisfaction with therapy and quality of life. But there is a gender discrepancy when comparing certain single items from the scales, e.g. men were more severely impaired in ratings of grandiosity and unusual thought content, while women manifesting slightly better social functioning. Also in some socio-demographic features, in the use of coercive measures and in the reasons why are they applied gender plays a role.

Conclusions: In the majority of observed aspects concerning involuntary treatment, we have not found radical differences when it comes to gender. However, there are distinct disparities mainly in social functioning sphere, particular quality of life components and the motives for using coercive measures.

P0184

Aberrant brain stem function in schizophrenia

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Background and Aims: Earlier research has shown that schizophrenic individuals process complex sound in aberrant ways (Olsson.O., Dissertation, Lund, 2000). It has also been shown that they abnormally perceive forward and backward masking (Källstrand et al., Psychiatry Res. 2002 Dec 15; 11 (1-2); 115-25). Experiments described in those studies indicate that in schizophrenia, brain-stem activity is involved, where primitive sorting of sound elements takes place. Brain Stem Response Audiometry (BSRA) shows that e.g. dissimilar spectra significantly separates schizophrenics from healthy subjects (Nielzén.S., 15th AEP Congress, March 2007, p. S86). The present study aims at demonstrating effects of loudness change of complex sound stimulation.

Method: Eighteen paranoid schizophrenic patients were compared with 25 healthy volunteers regarding BSRA recordings from 2048 sweeps of loud noise stimuli (76 dB) and 2048 quieter ones (73 dB). Analysis of latencies in ms and amplitudes in micro-volts of the peaks and troughs was performed.

Results: The amplitude of the highest peak of the region 1-4 ms was significantly lower with quiet noise for the schizophrenic group (P=.0002).

The schizophrenics showed significantly prolonged latencies of the highest peak during 4,5-9 ms with the quiet noise (P=.046); they had a significant longer latency from left than from right electrode (P=.049).

Conclusion: The results corroborate earlier cumulative BSRA results. These have been collected in a model – S-Detect – which is used as an objective decision support for the diagnosis of schizophrenia.

P0185

Optimized mismatch negativity reflects deficits in schizophrenia patients in a combined EEG and MEG study

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Background and Aims: Mismatch negativity (MMN) and its neuromagnetic analog (MMNm) are event-related brain responses elicited by changes in a sequence of auditory events and indexes of early cognitive processing. It consistently detects neural pre-attentive information processing deficits in schizophrenia. So far, MMN can be assessed with different methods (electroencephalography, EEG; magnetoencephalography, MEG) and different paradigms using the "traditional" oddball (20% rare deviants) or the so-called "optimum" (50% rare deviants varying in one of five parameters each) designs but the latter has not been applied to schizophrenia as yet.

Methods: Both designs were compared in 12 patients with schizophrenia and 12 healthy controls using MEG and EEG. Automated, observer-independent data analysis rendered the procedures suitable for clinical applications.

Results: The optimum design was fastest to detect MMN changes. MEG had the best signal-to-noise ratio. In addition MMN was mostly reduced in schizophrenia if measured with MEG in the optimum paradigm.

Conclusions: Optimized MMN paradigms - especially MMNm - improve sensitivity and speed for the detection of schizophrenia endophenotypes. Dysfunctions in this disorder may lie primary in the fast and automatic encoding of stimulus features in the auditory cortex. Of note, these MMN optimum measures may not reflect one unitary mechanism that is equally affected in schizophrenia.

P0186

Increasing cardiovascular mortality trends in schizophrenia in Sweden

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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

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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.

P0188

Serum lipid levels in schizophrenia and bipolar disorder relapse

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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

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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