

associated with the intensity of both positive and negative psychotic experiences. No significant association was found between cannabis use and the depressive dimension, or between alcohol use and any of the three positive, negative and depressive dimensions.

Conclusion: This cross-sectional study supports the hypothesis that exposure to cannabis may induce the emergence of positive psychotic symptoms in subjects without clinical psychosis, and additionally suggests that cannabis users present with greater levels of negative symptoms. Prospective studies are required to explore the direction of causality and the impact of cannabis on the course of psychotic experiences in subjects from the general population.

P45.09

Lycanthropy – psychopathology and psychodynamics

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Lycanthropy is the delusion of being transformed into an animal. Keck et al. defined it not only as the subjective feeling verbally announced by the patient but also as the clinical impression of a undoubtedly animal-like behaviour. Lycanthropic symptomatology was reported in diverse psychiatric diseases, mainly in affective and schizophrenic psychoses or induced by psychotropic substances. Psychodynamically this delusional symptom can be interpreted as an attempt to express subconscious affects e.g. aggression. Two case reports and a review of the literature are illustrated and the psychodynamical aspects are discussed.

P45.10

"State of suicidality" in schizophrenia – a case report

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The use of violent methods of suicide and a high medical seriousness in suicide attempts of schizophrenic patients is known. Schizophrenic patients have a life-time risk of completed suicide up to 13%. Several risk factors for suicide in schizophrenia have been described but the assessment of suicidality in schizophrenia seems to be very difficult, e.g. because of the abruptness of change of psychopathology.

We report the case of a 35-year-old male suffering from schizophrenia for fifteen years who had never been hospitalised. We describe a "state of suicidality": for several days the acute psychotic patient tried in various violent ways to commit suicide and was at last admitted to the hospital with a severe laceration of one arm. We use the term "state of suicidality" for this rarely described chain of violent suicidal attempts without the patient being able to distance himself through the course of events from his suicidality.

P45.11

Effect of risperidone versus haloperidol on sleep in schizophrenics

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Introduction: Sleep disturbances are commonly reported in schizophrenia. Risperidone, an atypical antipsychotic, has been shown to improve sleep efficiency in schizophrenic patients.

Objective: The current randomised double-blind, parallel group study compared the effects of risperidone and haloperidol on the sleep of schizophrenic patients.

Methods: Twenty-three patients were randomised to risperidone or haloperidol. Polysomnography was performed and subjective sleep evaluation was obtained.

Results: Adequate sleep data were obtained in 15 patients (risperidone 6, haloperidol 9). The duration of stage 3 slow wave sleep (SWS) increased significantly in the risperidone group (+14 min) versus haloperidol (-3 min). Compared to baseline values, sleep maintenance increased more in the risperidone group compared to haloperidol and tended to be higher at endpoint. The number of short awakenings decreased in the risperidone group, but was unchanged in patients receiving haloperidol.

Conclusion: This study demonstrated that sleep maintenance and continuity were improved. There was a significant prolongation of slow-wave sleep with risperidone compared to haloperidol. The positive effects of risperidone on SWS may contribute to a better clinical outcome in schizophrenic patients.

P45.12

Genotype-environment interaction in the Finnish adoptive family study

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A nationwide Finnish sample of schizophrenics' offspring given up for adoption was compared blindly with matched controls, which were adopted offspring of non-schizophrenic biological parents. Adoptive families have been investigated in their homes. Individuals at genetic risk showed the greatest vulnerability to environmental adversities in 19 years follow up. In addition, the MR results are compatible with the hypothesis that healthy rearing environment can have protective effect. Genotype-environment interaction can be defined as a genetic control of sensitivity to environmental factors, or environmental control of gene expression. It is possible that neither the genetic susceptibility nor the risk factor can influence the disease risk by itself, but risk is increased when both are present. These and other examples are important in that they illustrate that a genotype associated with a disorder may not indicate any genetic role in the causal pathway to the disorder but may identify who is or is not susceptible to an environmental causal factors.

P45.13

Predictors of admission status in first episode schizophrenia

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Objective: To examine predictors of involuntary admission in consecutive cases of first episode schizophrenia from a geographically defined catchment area.

Method: We assessed individuals presenting to a catchment area service with first episode schizophrenia, using the Positive and Negative Symptom Scale (PANSS) and Structured Clinical Interview for the DSM-III-R (SCID).

Results: Seventeen (23%) of the seventy-three patients with first episode schizophrenia were admitted on an involuntary basis. Involuntary patients had a mean age of 33.0 years (SD=12.6) which was significantly higher ($p<0.05$) than that of voluntary patients (25.4 + 7.3). Gender, marital status, drug misuse and living alone

did not predict admission status. Grandiosity on the PANSS was significantly associated with involuntary admission ($p < 0.05$). Total positive and negative symptom scores and other PANSS subscales did not predict status.

Conclusion: Involuntary patients with first episode schizophrenia are older than voluntary patients. Involuntary admission is associated with grandiosity but no other PANSS symptom subscales.

P45.14

Association between a functional promoter MAOA variant and schizophrenia

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Disturbed monoamine transmission has been implicated in schizophrenia. We investigated a putative functional promoter polymorphism in the monoamine oxidase A (MAOA) gene in Swedish schizophrenic patients ($n=133$) and control subjects ($n=377$). In men, there was an association between the less efficiently transcribed alleles and schizophrenia ($\chi^2=4.01$, $df=1$, $p < 0.05$). In women no significant differences were found. The present results support the involvement of the MAOA gene in schizophrenic men in the investigated population. The results should be treated with caution because of lack of association in previous studies.

P45.15

Association study and meta-analysis of a DRD3 gene Ser9Gly variant and schizophrenia

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There is considerable controversy about a putative association between schizophrenia and a Ser9Gly variant in the first exon of the dopamine D3 receptor gene (DRD3). Two meta-analyses published in 1998 suggested association (odds ratios 1.2). We previously reported lack of association in a Swedish sample. In the present study additional subjects were added to the case-control sample. Patients with schizophrenia ($n=156$) and control subjects ($n=463$) were assessed for the DRD3 Ser9Gly variant. No significant difference between patients and controls were found, but there was an association between DRD3 Ser9Gly variation and response to anti-psychotic drugs. In an updated meta-analysis of all case-control studies comprising more than 8500 subjects the associations between DRD3 Ser9Gly homozygosity ($\chi^2=6.85$, $df=1$, $p < 0.01$; odds ratio 1.13, 95% confidence interval 1.03–1.23) persisted. Reasons for the discrepancies between prior studies are discussed.

P45.16

Data mining in schizophrenia in the Human Brain Informatics Project

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In the HUBIN (Human Brain Informatics) project a relational database is established at the Karolinska Institute on human brain data. This study combines molecular genetic, phenotypic, brain imaging (MRI) and environmental data for schizophrenia patients and healthy control subjects resulting in a large number of clinical and biological variables. The project is based on the assumption that cross-domain analyses using data mining approaches can provide new hypotheses much more efficiently if many different domains are investigated on the same subject population. Using a variety of data analysis methods a better understanding of brain structure and function in neuropsychiatric diseases may be achieved. In this study detailed volumetric data from MRI studies are compared with molecular genetic data, disease state and other variables obtained. Several aids are available for deciding the most relevant projections: principal component analysis, dimensionality reduction, mixture identification, autaclass identification etc. The evaluation of these procedures, as well as results obtained, such as a correlation of regional brain volumes, serum enzyme levels and other variables between the different study groups, will be described.

P45.17

Pindolol augmentation in aggressive schizophrenic patients

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Treatment of aggression in schizophrenic patients is a major challenge. We sought to examine the efficacy of augmentation of antipsychotic treatment with pindolol in the amelioration of aggression. Thirty male inpatients meeting DSM-IV criteria for schizophrenia, aged 20–65 years involved in 4 or more aggressive incidents in the two previous months, were enrolled in a double-blind crossover study. Aggression was evaluated per incident, with the Overt Aggression Scale (OAS). Positive and Negative Syndrome Scale (PANSS) was administered at baseline, crossover and at endpoint. Patients received either pindolol or placebo augmentation 5mg X 3/day until crossover, then switched. No significant differences were found in the PANSS scores between the placebo and pindolol treatments. OAS scores were significantly reduced for number of aggressive incidents towards objects and other persons during pindolol treatment (0.59 vs 1.46, $F=6.09$, $p < 0.02$; 1.96 vs 3.23, $F=4.17$, $p < 0.05$ respectively). Similar results were obtained for severity of incidents (0.89 vs 3.58, $F=19.42$, $p < 0.0001$; 2.89 vs 6.85, $F=10.11$, $p < 0.004$ respectively). Pindolol, with its dual α and 5HT1A blocking effect ameliorated both number and severity of aggressive acts. Influence on severity may be associated with a 5HT1A antagonistic effect.