persons might have an additional risk of higher plasma levels of arylamine drugs co-administered with fluoxetine.

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P02.234

BIPHASIC EFFECTS OF CANNABINOIDS ON LEUKOCYTE PHAGOCYTOSIS IN MICE

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A biphasic dose dependence of cannabinoid action has been suggested more than two decades ago (Paton W.D. & Pertwee R.G.: in: Marijuana, Academic Press, 1973, 287–333; Dewey W.L.: Pharmacol Rev, 1986, 38, 151–178). We have recently shown that very low doses of the endogenous cannabinoid anandamide counteract or cause the opposite effects of higher doses on behaviour and immune function of leukocyte phagocytosis (Šulcová A. et al.: Pharmacol Biochem Behav, 1998, 59 (2), 347–352). The present study investigated further the relationship between the changes of cannabinoid receptor (CB) activity and leukocyte phagocytosis. In vivo anandamide-induced effects on leukocyte phagocytosis (stimulation at the dose of 0.01 mg/kg and inhibition at the doses of 1.0 and 10.0 mg/kg) were compared with the effects of the synthetic CB receptor agonist HU-210 (0.01 or 0.1 or 0.5 mg/kg), and antagonist AM251 (0.5 or 2.5 or 7.5 mg/kg) Phagocytic activity of mouse leukocytes was measured in chemiluminescence (CL) assay using zymosan induction of phagocytosis and luminol potentiation of CL in vitro. Female mice of the inbred strain C57BL/10 (8 weeks old) were injected prior to the assay with one daily dose of either vehicle or drugs for 7 days. The assay takes place 2 h after the last dose given in blood samples withdrawn from the retro-orbital plexus of mouse in ether anaesthesia. CL was measured every 5th minute during 1 hour. CL curves were analyzed by multifactor analyses of variance: Tukey's honest significant differences test ($p < 0.05$). Cannabinoid HU-210 effects resemble those of anandamide while stimulating leukocyte phagocytosis at the lowest dose tested, and inhibiting it at the higher doses (significantly at the dose of 0.5 mg/kg). All three doses of CB receptor antagonist AM251 used significantly suppressed leukocyte phagocytosis. These results confirm that CB receptors which have been identified on leukocytes (Bouabala M. et al.: Eur J Biochem, 1993, 214, 173–180; Galiegue S. et al.: Eur J Biochem, 1995, 232, 54–61) are active in regulation of their phagocytic function and might be important for immune changes in cannabinoid users.

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P02.235

BIOLOGICAL MARKERS OF THE HYPERKINETIC SYNDROME IN CHILDREN OF AGE 6 TO 10 YEARS

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Based on our previous studies and references, we can conclude that the children of age 6–10 years suffering from the hyperkinetic syndrome reveal decreased serum levels of dopaminbetahydroxylase, which improve during the treatment by stimulants. The same changes were ascertained in patients with the unsocialized conduct disorder. The genes DBH (dopaminbetahydroxylase), DAT1 (dopamine transporter), DRD2 (dopamine D2 receptor) and DRD4 (dopamine D4 receptor) are counted among the most important, so called candidate genes. The NMR examination demonstrated changes in the size of basal ganglia, especially nucleus caudatus and striatum.

In the present study, results of clinical (Conners' scale, variant for parents), biochemical (serum DBH levels), genetic (occurrence of allele B1 of gene DBH and allele 480 of gene DAT1) and NMR (selected parameters) examinations were collected in children of age 6–10 years with the diagnosis of hyperkinetic syndrome according to DMS-IV. The results of mentioned examinations in untreated uncompensated patients were compared with those in the patients successfully treated with methylphenidate.

P02.236

ECG MAPPING WITH A VIEW TO ISCHEMIC CHANGES OF A MYOCARDIUM IN PATIENTS WITH A PANIC DISORDER

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In many previous studies, an increased risk of myocardial ischemic changes was demonstrated in patients treated for a panic disorder. Using classic ECG methods, the risk cannot be evaluated in most patients. Our study of 11 patients suffering from a panic disorder without any attacks and pharmacological treatment demonstrated up to this time unpublished changes when compared to the control group. The patients with a panic disorder showed a marked sinus tachycardia, changes of RIAM max., DIAM max. 30 and 40 parameters, less negative DIAM min. 40 and less RIAM max. 35 even in the period free of a panic attack. In patients with a panic disorder, both depolarisation and repolarisation phases of the heart rate were affected. Specific results were ascertained in the parameter RIAM min. 35. This parameter was more negative compared to normal values. An enlargement of the space angle QRS-STT, which is usually interpreted as a result of the myocardial global ischemia, was also determined. This finding could be connected with the predicted increased risk of the ischemic changes of the myocardium in patients with a panic disorder.

Our results will be compared with results of other study evaluating a larger group of patients and also with results of in advance examined patents treated with citalopram (SSRI antidepressant).

P02.237

MIRTAZAPINE: A QUICK AND EFFECTIVE TREATMENT IN PATIENTS WITH DEPRESSION-RELATED ANXIETY SYMPTOMS

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Background to Study: The aim of the study was to assess clinical efficacy and tolerability of mirtazapine in patients with depression-related anxiety.

Design, Variables Studied: Five-hundred-thirteen depressed patients with associated symptoms of anxiety were treated with mirtazapine for 3 months in an open-label study. Clinical efficacy was assessed after 2 and 9 weeks of treatment by the Clinical Global Impression (CGI) and the Hamilton Anxiety Scale (HAM-A). Tolerability was assessed by registering treatment-emergent adverse events. Only descriptive statistics have been used.

Results: Already in the first two weeks of treatment the magnitude of reduction of the anxiety score was very large and dropped with more than 7 points. Considering that at baseline the mean HAM-A score was 31.5 this improvement indicates a substantial reduction in anxiety symptoms. This was in agreement with the

high percentage of CGI responders ("much" or "very much" improved) of 69%.

In more than 90% of the patients no adverse events occured (57.4%) or were rated as subjectively not impairing (33.3%). The most frequent adverse events were somnolence, nausea, drowsiness, and weight gain.

Conclusion: Mirtazapine is a quick and effective antidepressant for the treatment of depression and symptoms of depression-related anxiety. Mirtazapine is very well tolerated by the patient.

P02.238

PSYCHIATRIC DISORDERS AND PSYCHIATRIC TREATMENT IN ECSTASY USERS COMPARED TO USERS OF OTHER ILLICIT DRUGS AND CONTROLS IN A REPRESENTATIVE SAMPLE OF YOUNG GERMANS

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The current study investigates patterns of ecstasy use, associated psychopathology, use of other substances, and self reported treatment seeking in a representative sample of a young population from metropolitan Munich.

Data were collected as part of the baseline and the two follow-up investigations of the Early Developmental stages of Psychopathology (EDSP) study. The EDSP is a research program funded by the German Ministry of Research and Technology, designed to collect data on the prevalence, risk factors, co-morbidity and course of mental and substance use disorders in a representative population sample, consisting of 3021 subjects aged 14 to 24 at baseline. The overall design of the study is prospective and longitudinal. Results indicate that the average ecstasy user consumes or abuses a number of other substances, e.g. OR for alcohol abuse or dependence among ecstasy users compared to non-users is 5.85 [95%CI: 4.05–8.45], compared to users of any other illicit substance is 1.70 [95%CI: 1.20–2.40]. Ecstasy users show an increased risk for the diagnosis of a number of psychiatric disorder (as measured by M-CIDI-interview). OR for any psychiatric disorder among ecstasy users compared to non-users is 3.38 [95%CI 2.38–4.81], compared to users of any other illicit substance 1.89 [95%CI 1.32–2.70]). Further analyses suggests that psychopathology precceds onset of ecstasy use. The presented results indicate that the average ecstasy consumer is a polydrug user with a number of associated psychiatric problems. Relevance for prevention, treatment and assessment of ecstasy associated cognitive deficits will be discussed.

P02.239

FAMILY STUDY OF SUICIDAL BEHAVIOUR IN BIPOLAR DISORDER

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Affective disorders are associated with a high risk of suicidal behaviour. Particularly in bipolar disorder (BD) the suicide rate has been reported as high as 20%. Suicide has been traditionally viewed as a behavioral manifestation of abnormal mood. However, several family studies suggested that it might be linked to a specific genetic susceptibility. It remains to be clarified whether the genetic factors in suicide are different from those underlying affective disorders. To this end, we conducted a family study of patients with typical BD. We studied 77 kindreds that included a total of 539 subjects, 182 of these had a disorder in the bipolar spectrum. Thirty-six subjects had a history of suicidal behaviour (completed suicide or suicide attempt). For each subject, we determined his/her psychiatric diagnosis and a lifetime history of suicidal behaviour using semi-structured interviews and the family-history method. The risk of suicidal behaviour in affectively ill family members correlated with the number of other relatives in the same family affected with BD. The risk of suicide was not homogeneous, however. We identified three types of families, each associated with a different risk of suicidal behaviour (<0.1%, 20% and 87%). In conclusion, suicidal behaviour seems to aggregate in a subset of high-risk families; and this aggregation is not independent of the genetic risk for BD. Such finding might arise from two correlated genetic liability distributions. Alternatively, bipolar disorder associated with suicidal behaviour may represent a distinct disorder found at the extreme end of the genetic liability continuum.

P02.240

ARE CONVENTIONAL ANTIPSYCHOTICS THE ONLY OPTION FOR THE TREATMENT OF FIRST EPISODE SCHIZOPHRENIA?

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There are certain data that clozapine (atypical antipsychotic widely used for the treatment of chronic drug-resistant schizophrenia) is at least as effective as traditional neuroleptics for the treatment of non-resistant acutely psychotic patients. The studied sample included 30 in-patients (first admissions only) with acute episode of DSM-IV paranoid schizophrenia. Patients were randomly assigned to 3-week double-blind treatment with either clozapine (20 subjects) or standard conventional antipsychotic haloperidol (10 subjects) in increasing dosage. Psychopathology was assessed weekly with BPRS and CGI rating scales. Clinical response was defined as 30% decrease of BPRS total score plus rating of 2 or 1 on CGI-Improvement subscale. Adverse events were evaluated by patient query and by performing routine laboratory tests and vital signs. Data were analysed with χ^2 and t-test. It was found that clozapine produced significantly greater improvement on both BPRS and CGI scales ($P < .01$). Seventeen of the 20 patients (85%) responded to clozapine, while only 5 of the 10 subjects (50%) showed predefined response to haloperidol ($P < .05$). Integrating incidence of adverse events (total number of reports) did not significantly differ between groups but their severity was lower in clozapine-treated group ($P < .05$). No cases of agranulocytosis occurred during the study. Thus, our study demonstrated superior efficacy and tolerability of clozapine over haloperidol in subjects with the first lifetime diagnosis of schizophrenia. Since the risk of agranulocytosis is significantly decreased by relatively short exposure to clozapine, in our view, it may be worth using this atypical antipsychotic for the treatment of first episode acutely psychotic patients.

P02.241

THE IDEOLOGICAL DIMENSIONS OF THE BURNOUT SYNDROME IN PSYCHIATRIC INSTITUTIONS

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The burnout syndrome, "discovered" in mid-1970s, receives growing attention during recent years. The objective of the study was to make a crosscultural comparison and to explore the influence

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