

neuroleptic treatment. In case 2 (woman with disorganized syndrome beating her 74-year-old mother) 84.6% supported hospitalization, 78.8% neuroleptics. In case 3 (relapsed multi-episode patient, increasingly neglected, delusional and socially withdrawn) 56.3% supported hospitalization, 52.7% neuroleptics. Generally, decisions of psychiatrists were very similar to those of nurses and lays, while psychologists and social workers more often rejected involuntary treatment ($p < .05$ in all cases). Besides professional status, multivariate analyses revealed older age as most significant variable for support of involuntary treatment ($p < .001$ in case 1 and 3). Counterintuitively, frequency of experience with mentally ill persons, mental illness in the own family and having self been mentally ill were only weak predictors or not significant. Gender only played a role in case two with a stronger support of treatment by women ($p < .05$).

Conclusions: In ethic decisions on involuntary treatment, clinicians should be aware that there is no general agreement among professionals and among lays. A considerable minority rejects measures of coercion. Comparisons with other countries would be interesting.

P01.13

CLINICAL AND EEG PREDICTORS OF THE THERAPEUTIC OUTCOME OF ELECTROCONVULSIVE THERAPY

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Background: The empirical nature of electroconvulsive therapy (ECT) has led many investigators to seek specific predictors of clinical response.

Methods: Bilateral ECT with brief-stimulus technique was performed in the sample of 52 patients (10 men, 42 women) with average age 44.6 ± 14.3 years. The therapeutic response was assessed using the first item of the CGI scale. For the data analysis multiple regression analysis was used.

Results: In the subgroup of patients with an affective disorder ($n = 22$) two significant predictors of better therapeutic outcome were identified: higher baseline CGI score ($p < 0.01$) and smaller total number of electroconvulsions which were needed ($p = 0.01$). In the subgroup of patients with schizoaffective or schizophrenic disorder ($n = 30$) only one significant predictor was found: shorter cumulative duration of electroconvulsions on EEG before the first clinical improvement of the patient ($p < 0.05$). In both subgroups age, number of electroconvulsions before the first improvement, and total cumulative duration of electroconvulsions on EEG turned out as nonsignificant.

Conclusions: The difference between predictors in affective and schizophrenic disorders seems to be an original finding of our study. This difference could be relevant to different mechanisms of action of ECT in both diagnoses.

P01.14

OLANZAPINE: EFFECTS ON NEUROPSYCHOLOGICAL TEST PERFORMANCES IN THE SCHIZOPHRENIC SPECTRUM

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Objective: Deficits evident in patients with schizophrenia are to some extent believed to resolve with the new generation of

antipsychotic medications. The present study compared the effects of olanzapine on neurocognitive changes in schizophrenic patients before (pre-treatment) and after 8 weeks of therapy.

Method: Measures included global functioning, memory, concentration, attention, problem solving, verbal fluency, visuo-spatial perception, visual scanning and abstraction.

Results: A significant percentage of patients who received olanzapine (range 5–20 mg/day) demonstrated, improvement in performance in a large number of neuropsychological tests of the battery.

Conclusions: The results suggest that olanzapine treatment may have beneficial effects on a considerable amount of cognitive functions. The findings also suggest that neuropsychological tests may be used in the prospective of individualized therapeutic programs.

P01.15

NEUROCOGNITIVE CHANGES IN ADJUSTMENT DISORDER WITH DEPRESSED MOOD: USE OF PAROXETINE

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Objective: Neurocognitive changes (forgetfulness, inattention, indecisiveness, decreased vigilance, diminished ability to think or concentrate, reduced motivation to perform) characterize adjustment disorders with depressive mood. Impairments are believed to resolve with treatment. This study compared clinical and neuropsychological characteristics of patients with adjustment disorder with depressive mood before and after antidepressant therapy.

Method: Neuropsychological measures of executive attention, vigilance, visuospatial perception, concentration and verbal fluency function were administered to young patients with adjustment disorder at baseline and after 8 weeks of SSRI paroxetine (20 mg/day). Symptoms and function ratings were obtained at the same time points.

Results: After treatment a significant percentage of patients were able to perform tests at a relatively high level. Improvements in the ability to attend and perform tasks were related to symptom changes. Changes in selected neuropsychological measures were significantly correlated with improvement in quality of life.

Conclusions: The results suggest that paroxetine treatment may have beneficial effects (that tend to occur later in treatment) on a broad range of cognitive functions and in enhancing neuropsychological test performances.

P01.16

GABAPENTIN IN ANTIPSYCHOTIC-INDUCED MOVEMENTS

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Objective: Gabapentin (GBP) has been reported to effective in the treatment of psychiatric disorders. The beneficial effect of GBP in 14 cases with previous antipsychotic-induced blepharospasm and involuntary mandibulo-oral movements was serendipitously observed during an open-label trial to further investigate the potential clinical spectrum of this drug in affective disorders. The aim of the study was to investigate the efficacy and tolerability of GBP in patients with tardive dyskinesia.

Method: Fifteen patients with antipsychotic-induced movement disorders underwent a 16-week open trial treatment with adjunctive

GBP. All patients were initially escalated up to 400 mg of GBP three times a day.

Results: A dramatic improvement of evident movements occurred following treatment with GBP.

Conclusions: Data makes of GBP an attractive compound for patients with signs of tardive dyskinesia, especially for patients receiving polipharacotherapy. Further studies are warranted.

- (1) Hardoy MJ, Hardoy MC, Carta MG, Cabras PL. Gabapentin in bipolar disorder: does a specific effect on hostility exist? *Psychiatric Networks* 1-2: 60-64, 1998.
- (2) Cabras PL, Hardoy MJ, Hardoy MC, Carta MG. Clinical experience with gabapentin in patients with bipolar and schizoaffective disorder: results of an open label study. *Journal of Clinical Psychiatry* 60: 4: 245-248, 1999.
- (3) Hardoy MC, Hardoy MJ, Carta MG, Cabras PL. Gabapentin as a promising treatment for antipsychotic-induced movement disorders in schizoaffective and bipolar patients. *Journal of Affective Disorders* 54: 315-317, 1999.

P01.17

ADJUNCTIVE AMISULPRIDE TO FLUVOXAMINE IN MAJOR DEPRESSION: EARLY SSRI ONSET OF ACTION

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Objectives: The topic of early response to antidepressant treatment has been extensively studied in Major Depression. We serendipitously observed an increase tolerability and an early onset of antidepressant fluvoxamine activity when associated with amisulpride in patients with Major Depression. The purpose of this study was to investigate our preliminary observations.

Method: A 6-week open trial with the combination of fluvoxamine (100 mg/day) and amisulpride (50 mg/day) on outpatients with DSM-IV diagnostic criteria for Major Depression was carried out. Clinical symptoms were evaluated using the HDRS at baseline and week 1st, 2nd, 3rd, 4th and 6th. HDRS score at T0 was 26.4 +/- 5.2. At T2 all patients presented a lower score than 18. The score at T6 was 8.4 +/- 4.2.

Results: All patients showed a statistically significant improvement ($P < 0.00001$ Freedman analysis of variance) of depressive symptoms. The HDRS item analysis demonstrated that the first therapeutic effect was the disappearance of the sleep depressive pattern at the end of the 1st week. None of the patients expressed significant side effects.

Conclusions: Findings appear to suggest an increased SSRI tolerability and an early onset of fluvoxamine action in association with amisulpride. Further studies are warranted to confirm these results.

P01.18

ROLE OF PRO-INFLAMMATORY CYTOKINES IN DOWN'S SYNDROME

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Objective: Clinical similarities shared by ageing in Down's syndrome (DS) and Alzheimer's disease (AD) found a neuropathological verification in the presence of cerebral β amyloid protein (A β) plaques. The gene coding for the amyloid precursor protein was localised on chromosome 21. Some Authors suggest an hypothetical

pathogenic role of pro-inflammatory cytokines in the dementia of Alzheimer type (DAT). The purpose of this study was to investigate the role of pro-inflammatory cytokines in the DS.

Method: The study included 18 institutionalized mental retarded patients with DS (full trisomy) and 18 sex- and age-matched controls with Mental Retardation (MR) caused by perinatal ischemic cerebral damage. Patients fulfilled DSM-IV diagnostic criteria for MR and were assessed with WAIS. Concomitant psychopathological symptoms were evaluated through the AIRP, SPL CD3, CD19, CD4, CD8, CD3/HLA-DR and total NK were assayed by flow cytometry. IL-6, TNF- α , MIP-1 α , MIP-1 β and RANTES serum levels were determined by ELISA test.

Results: Cytokine levels in patients with DS were higher than controls. In the DS group there was a statistically significant correlation between IL-6 and the IQ level; MIP-1 α and MIP-1 β levels inversely related with age and anxiety symptoms but did not correlate with VES. These results were not observed in the control group where MIP-1 α and MIP-1 β correlated with VES.

Conclusions: Findings appear to suggest an Alzheimer-like implication of the Immune System in the DS cognitive decline. Further longitudinal studies are required.

P01.19

LACK OF EFFECTS OF ST. JOHN'S WORT EXTRACT ON AUTONOMIC AND COGNITIVE FUNCTIONS

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Background: Various extracts of hypericum perforatum (St John's wort) are used as antidepressants in Germany. However their pharmacodynamic properties i. e. the cognitive effects and the tolerability are not well established. Therefore aim of the present study was to investigate the effects of a standardized St. John's wort extract on cognitive and autonomic functions.

Design: A double-blind randomized, placebo controlled cross over trial was performed. 12 healthy male volunteers (age 23-32 years) orally received capsules of St. John's wort extract containing 900 μ g hypericin (Helarium Hypericum®) t. i. d. as well as placebo for 14 days each. Parameters of heart rate variability were assessed with the means of a standardized autonomic test battery (PowerLab® system, Australia). In parallel cognitive functions were measured using a computerized test battery (Wiener Test System®). Measurements were performed repeatedly before the start of drug administration and on the last treatment day.

Results: St. John's wort extract did not cause significant changes of heart rate and parameters of heart variability as compared with placebo ($p > 0.05$). In parallel no significant changes of short term memory, reaction time, subjective mood, psychomotor ability and performance in the Stroop test were observed.

Conclusions: In the present study no evidence for a relevant central and/or peripheral pharmacodynamic action of standardized hypericum extract could be found. The clinical implications of the negative findings and their impact on the risk-benefit ratio of the herbal drug remain to be determined in long term studies.