adequate psychosocial support, and better coordination between infectious-diseases and substance-use clinic teams.

## P01.142

### EEG OF RELATIVES OF SCHIZOPHRENICS: PECULIARITIES AND ASSOCIATIONS WITH COGNITIVE AND CT PARAMETERS

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The aim of the present study was to search for EEG parameters associated with genetic liability to schizophrenia. Absolute power values of EEG frequency bands of 148 first degree relatives of schizophrenics (100 parents, 48 sibs) were compared with those of 70 ICD-10 schizophrenics and 49 controls. As compared to controls, two relatives groups and the patients showed significantly higher mean power values of delta, theta, beta 1 and beta 2 activity in almost all sites during rest condition and while performing verbal and spatial tasks. In relatives, cognitive dysfunction was reflected by increased mean delta power of resting EEG in the left anterior and bilateral occipital regions and with a task-related increment in theta power over frontal areas. Topography of task-induced EEG changes suggested that genetic predisposition to schizophrenia might be associated with a deviation of interhemispheric balance, namely, with increased reactivity of the fight hemisphere during mental arithmetic and verbal fluency tasks and increased reactivity of the left hemisphere during a spatial task. Relationships between EEG power values and 17 CT and 9 cognitive variables were studied in 25 schizophrenic families. In relatives, the analysis revealed significant correlations between memory performance and measures of alpha-power and the III ventricle. Preliminary data on association of alpha-power and serotonin receptor 2A gene polymorphism were obtained.

## P01.143

### CHARACTERISTICS OF PATIENTS REGISTERED IN DATABASES OF THE CLOZAPINE MONITORING SYSTEM IN SLOVAKIA

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**Background:** The monitoring programme for patients treated with clozapine (Leponex) started in Slovakia in 1995. The databases allows to asses some characteristics which could be regionally specific.

**Method:** Data of 588 patients registered in databases up to March 2000 were analyzed with the aim to assess some characteristics of patients treated with clozapine in Slovakia. The age at onset of treatment, the dosage of clozapine, co-medication with other psychopharmacological agents and the reasons for withdrawal of clozapine are described here.

**Results:** The mean/median age of patients at the start of treatment was 31/28 years for men and 34/32 years for women. The mean/median of the maximum documented daily dose of clozapine in any period of treatment was 171/150 mg/day. 180 patients who were treated with clozapine more then 5 months used one or more other psychopharmacological drug alone or in combination (87 neuroleptics including 29 neuroleptics in depot form; 73 antidepressants; 68 anxiolytics/hypnotics; 21 mood stabilizers; 53 antiparkinsonics and 9 patients nootropics). The mean/median daily dose of clozapine in patients using another neuroleptic was 193/175 mg/day. Leukopenia/agranulocytosis was the reason for withdrawal of clozapine in 11 patients.

**Discussion:** The results reflect some specifics of the treatment with clozapine in Slovakia. The lower age at the start of treatment, lower dosage and frequent co-medication are typical. The probable reasons could be that clozapine was never withdrawn from the market in our country and that rules for pharmacological treatment common in EU and U.S.A. are not yet completly implemented into the daily practice in Slovakia.

## P01.144

### DISTRIBUTION OF SEROTONIN TRANSPORTER GENE VARIANTS IN HUMAN POPULATIONS: A POSSIBLE TOOL FOR UNDERSTANDING SOME ASPECTS IN PSYCHIATRIC EPIDEMIOLOGY

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Prevalence of major psychiatric disorders is equally distributed among populations, what is considered an evidence for the existence of a genetic center dot component in the aetiology of these illnesses. It is unknown whether these genetic risk factors are the same or even if they have the same frequencies in all populations. A prior knowledge of both the current pattern of genetic diversity, and the evolutionary history of this diversity is necessary to answer such questions. Allelic distribution in different human populations for loci that show genetic variation with functional repercussion would be of interest for future studies (e.g. epidemiological) to determine the role of this kind of loci as possible disease risk factors. The serotonin transporter gene (SERT) is a particularly interesting candidate gene for involvement in neuropsychiatric disorders due to its role both in the regulation of serotonergic neurotransmission and in the mechanism of action of many psycho-drugs. In the past few years, there has been increasing evidence documenting association between the short (low activity) variant of a polymorphism located in the promoter region of SERT gene and major affective disorders. In the present study, we performed an accurate bibliographic search in order to investigate the distribution of allele frequencies for this polymorphism in different human populations.

Range of variation for short allele frequency in European-Caucasian populations was comprised between 39.4% and 50%. These frequencies significantly differ from those found in East Asian (70%–83%) and African (11.1%–35%) populations.

These data suggest a large potential for stratification in association studies, especially when samples come from heterogeneous populations. They also show the importance of population data to understand how genetic factors are involved in the origin of neuropsychiatric disorders.

## P01.145

### AMYLOID BETA PEPTIDE 1–40 INFLUENCES A RECOGNITION SITE OF HEMICHOLINIUM-3 SENSITIVE CHOLINE CARRIERS AND THEIR PROTEOLYTIC DEGRADATION

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In recent years, great attention has been concentrated on the research of a role of different amyloid beta peptide (Abeta) fragments in the pathogenesis of Alzheimer disease. However, an important physiological role of soluble Abeta as an endogenous cholinergic neuromodulator of the basal forebrain area is also suggested. Data in the literature indicate a marked time- and dose-dependent inhibition of the high-affinity choline uptake associated

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