

**P22.03**

HLA antigens in schizophrenia: relation to eye movement disturbances

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Region coding HLA antigens on chromosome 6q21 was shown to be associated with both the vulnerability to schizophrenia and the presence of eye movement disturbances (EMD). The aim of the study was to investigate how individual HLA antigens in schizophrenic patients may be related to the intensity of two kinds of EMD: fixation and smooth pursuit. First, the incidence of HLA antigens was compared between 40 schizophrenic patients (17 male, 23 female) and 198 healthy control subjects (112 male, 86 female). In schizophrenic patients, the intensity of EMD was assessed by infrared reflectometry and quantified on 0–3 scale. Significant correlation was obtained between some EMD and antigens A3, A24, A28, B18, CW3, DR3, DR11, DRW51 and DRW52. Out of these, antigens A3, A24, A28, CW3 and DR3 have been also found to occur with different frequency in schizophrenic patients than in healthy subjects. These five antigens seem most promising for future studies on the pathogenesis of schizophrenia as being associated both with schizophrenia as well as with eye movement disturbances, an endophenotypic neuro-physiological marker of this illness.

**P22.04**

No association between norepinephrine transporter gene (1287 A/G) polymorphism and schizophrenia

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**Objective:** Norepinephrine can be implicated in the pathogenesis of schizophrenia. Increased levels of brain norepinephrine were found in schizophrenic patients, especially during period of psychotic relapse. Norepinephrine transporter (NET) regulates the level of norepinephrine, so norepinephrine transporter gene would be a candidate gene for studies of schizophrenia.

**Methods:** The study was performed on patients with schizophrenia n=198 (male n=118, female n=80). Control subjects were blood donors n=211 (male n=111, female n=100), who were not psychiatrically assessed. A silent polymorphism 1287 A/G of NET located in exon 9 was analysed by PCR-RFLP method.

**Results:** There were no differences in the frequency of genotypes between patients and controls. In the frequency of the alleles we also did not find any differences (32% for allele A for schizophrenic patients, 33% for controls, for allele G 68% for schizophrenia, 66% for controls respectively). Dividing the patients according to the gender, no differences in the frequency of either genotypes or alleles were found.

**Conclusion:** In our study we have not confirmed an association between the studied polymorphism of norepinephrine transporter gene and schizophrenia.

**P22.05**

The significance of the hereditary factors in the clinical-nosological differentiation of the schizoaffective psychosis

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The conception of the nosological independence of schizoaffective disorder has been called in question, widely discussed in psychiatric science for many years and has been remained contradictory. One of the ways to the solution of this problem might be the study of the hereditary parameters of this disease.

**Objective:** The analysis of the genetic data, which could serve as a proof of independence of schizoaffective disorder.

**Materials and Methods:** There were investigated the clinical characteristics of the family background of the 121 patients with schizoaffective disorder due to ICD-10. According to the clinical-nosological differentiation the 59 patients had been diagnosed as the nosologically independent schizoaffective disorder, the 62 patients were diagnosed as shift-like schizophrenia, with the picture of the schizoaffective episode. In the both group were investigated 170 and 206 the first-degree relatives correspondingly. Clinical-genetical and clinical-psychopathological methods were applied during the research work, and the special maps of clinical-genetic examination of patients developed in MHRC were filled in. According to the ICD-10, the presence and the frequencies the incidence of personality disorders (accentuation of character, psychopathic personality), affective disorders, schizophrenia, and other mental disturbances in the relatives were analyzed.

**Results:** The comparative analysis data showed the prevalence of affective pathology in the relatives of patients with schizoaffective disorders (8.8% opposite to 4.9% in the families of the patient with schizophrenia). Schizophrenia occurred slightly more frequently in relatives of schizophrenic patients (9.8% to 8.2%) including shift-like schizophrenia (3.7% to 2.4%). Psychopathic personality disorders were observed in the relatives with the same frequency (45.3% to 45.1%), but in the group of schizophrenic patients they were more severe attaining the level of psychopathia (12.1% to 5.9% correspondingly,  $p < 0.05$  of the investigated groups of patients may be used in differentiation of a schizoaffective disorder).

**Conclusion:** The obtained data about statistically significant differences in the family background where the clinical parameters are taken into account might be used in the differentiation diagnosis between schizoaffective disorder and a shift-like schizophrenia.

**P22.06**

The C677T polymorphism of the methylenetetrahydrofolate reductase (MTHFR) gene is associated with depression, but not anxiety

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**Background:** A previous case-control study has suggested that homozygosity for the MTHFR C667T polymorphism (TT genotype) is associated with depression, while no such studies have examined the association with anxiety.

**Objective:** To investigate the associations between the MTHFR C667T polymorphism and depression and anxiety in a general population sample.

**Method:** The study population included 4,849 subjects aged 46–48 years (47 % men) and 4,338 aged 70–72 years (43 % men) from Hordaland county, Norway. Average participation rate was 77 %. The MTHFR genotypes were analysed by real time PCR.