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IL-2, IL-6, IFN-GAMMA AND TGF-BETA GENETIC POLYMORPHISM WITH RESPECT TO SUSCEPTIBILITY TO SCHIZOPHRENIA

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Background: Schizophrenia is a chronic severe psychiatric disorder with multiple environmental and genetic determinants. Several reports indicate the possible role of immune system dysregulation in the pathogenesis of schizophrenia. An accumulating body of evidence indicates an association of schizophrenia and its psychopathology with altered cytokine production. The variation of the level of cytokines might be partly due to their functional gene polymorphism.
Purpose: The study was carried out to investigate the association of schizophrenia with the following cytokine polymorphisms: IL-2 (-330T/G), IL-6 (-174G/C), IFN-gamma (+874 T/A), TGF-beta (+869 T/C and +915 G/C).
Material and methods: We included 130 patients diagnosed with schizophrenia and 184 controls in our study. The patients were evaluated for lifetime psychotic symptomatology using the Operational Criteria for Psychotic Illness (OPCRIT) checklist. The patients having history of traumatic brain injury, neurologic disorders, substance abuse or immune related diseases were excluded from the study by detailed medical examination.
Results: The polymorphisms were in HWE both in the cases' and controls' groups. In single marker analysis, we did not find an association for the tested polymorphisms.
Conclusion: Our data do not support the role of IL-2, IL-6, IFN-gamma and TGF-beta gene polymorphisms in the predisposition to schizophrenia in the Polish population.

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