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PHARMACOGENETIC STUDIES OF OLANZAPINE, PERAZINE AND ZIPRASIDONE IN PARANOID SCHIZOPHRENIA

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Literature data revealed that efficacy and side effects of antipsychotic treatment are influenced by multiple genes interactions. Polymorphic variation is likely to contribute substantially in this matter. Pharmacogenetic studies will help to determine which drug and dosage are best for each individual patient.

The aim of our study was to find:

1. Genetic markers influencing susceptibility of paranoid schizophrenia. The polymorphisms of DRD2 (-141C del/ins, Taq1A, egzon8), DAT, 5HT2a, 5HTT_LPR, COMT, MAO A and GRIK3 genes were studied.
2. Relationships between different gene variants and the treatment efficacy measured by the PANSS.

The group of 201 patients with paranoid schizophrenia consisted of 95 men (mean age 34) and 105 women (mean age 35). There were no significant differences between the groups according to the studied gender. Males patients had a significantly earlier age of onset but the duration of illness was similar in both gender groups. The patients were treated randomly with perazine, olanzapine or ziprasidone. The control group consist of 230 healthy volunteers ethnically, gender and age matched.

Results:

1. No differences were found in the allelic distribution in the investigated genes polymorphisms between the whole schizophrenics and the control group.
2. Associations between DAT: A9 allele, DRD2: del 141C allele, DRD2: Taq1A A1 allele, COMT: Met/Met genotype, MAOA: 4VNTR allele (males only) and GRIK3: SER allele with non responding patients were found.

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