

S28-03 - PHARMACOGENETICS OF THERAPY RESPONSE IN SCHIZOPHRENIA

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Pharmacogenetics in schizophrenia comprises pharmacokinetical and pharmacodynamical aspects as well as an approach to identify candidate genes associated with therapy response or side effects. Firstly focussing on classical drug targets like dopaminergic or serotonergic receptors, currently also developmental and regulatory genes presumably associated with effects of antipsychotic therapy are identified. The aim of this study was to investigate associations between therapy response in schizophrenic patients and different polymorphisms previously been identified within a genome wide array in rodents treated with MK-801 and/or haloperidol combined with some well-known schizophrenia candidate genes. We genotyped for 200 different polymorphisms in 285 schizophrenic patients, who were treated with different antipsychotics within randomized controlled trials. Psychopathology was measured weekly using the PANSS scale. Correlations between psychopathology and genotypes were calculated by using a linear model (ANCOVA).

We found significant associations between some well-known candidate genes (e.g. D_2 , $5HT_{1A}$, and α_{1A} -receptors) and different PANSS subscales at baseline and after four weeks of antipsychotic treatment considered as therapy response. Furthermore we also identified several significant associations between some genes introduced from the animal model and psychopathology at baseline and towards therapy response. Some of them were formerly described in the literature (e.g. Homer1, Phospholipase C and Transthyretin), but most of them have not been related to schizophrenia or antipsychotic treatment by now (e.g. PLEKHA6, CLIC6 and SOSTDC1).

This indicates an involvement of genes in the pathophysiology of schizophrenia apart from yet known candidate genes and might further help in detecting differential therapy response in individuals with schizophrenia.