
CASE – CONTROL STUDY OF GABRA2 GENE POLYMORPHISMS IN ALCOHOL DEPENDENCE

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Introduction:

Alcohol dependence (AD) is a highly prevalent disorder that is associated with serious morbidity and mortality. The development of alcohol dependence is the result of an interaction between environmental and hereditary factors. Previous studies have implicated GABRA2 receptor genes with AD, alcohol use patterns, and levels of response to alcohol. The aims of this study were to analyze the effects of polymorphisms in the GABRA2 gene on the risk of alcoholism ; associations between genotypes and alleles were studied;

Material and methods:

This study included a group of 161 Caucasian subjects, with no history of psychiatric disorders other than alcohol or nicotine dependence as classified by ICD-10. The control group comprised 150 unrelated individuals matched for ethnicity and gender, and excluded for mental disorders using the Primary Care Evaluation of Mental Disorders questionnaire. All subjects were recruited in the North West region of Poland. Alcohol use and family history of alcoholism were assessed by means of a structured interview, based on the Polish version of Semi-Structured Assessment on Genetics in Alcoholism (SSAGA). Genomic DNA was extracted from venous blood. Polymorphisms (rs 279826, rs 279871, rs279845) were detected using PCR real time method.

Conclusions:

Significant associations for genotypes and alleles were observed in rs 279871 polymorphism ($p=0,31$). The advantage of this research is that the genetic analysis of GABRA2 gene rs 279871 polymorphism was conducted on quite large and, most importantly, homogenous subgroups of alcohol-dependent patients.

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