

## Analysis of *GNAL* Polymorphisms in Attention Deficit Hyperactivity Disorder

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**ABSTRACT** Attention deficit hyperactivity disorder (ADHD) is a childhood-onset neuropsychiatric disorder. Dopamine related genes have been reported to be associated with ADHD. Dopamine 1 and 5 receptors together with the olfactory alpha subunit of the GTP-binding protein ( $G_{\text{olf}}$ ) in the striatum, mediate adenyl cyclase activation. The aim of the paper was to investigate the correlation between ADHD, subtypes, family history of ADHD in rs8095592, and rs3892113 in *GNAL* (the gene that codes  $G_{\text{olf}}$ ). 100 children with ADHD and 81 healthy controls were recruited for the study. Genetic evaluation was performed with venous blood samples. The frequency of the genotypes and alleles in rs8095592 and rs3892113 was not significantly different between the patient and control groups. The GG genotype in rs8095592 was significantly more common in the patients who had a family history of ADHD. In conclusion, the presence of the allele A in rs8095592 could be preventive from ADHD in those with family history.