عنوان مقاله:

The rs۶۳۲۳ and uVNTR Polymorphisms in the MAOA Gene are Associated with Attention Deficit Hyperactivity Disorder in Iranian Azeri Children

محل انتشار:

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خلاصه مقاله:

Background: ADHD is the most prevalent psychiatric health issue in youth, which may also affect adults. Environmental and genetic factors both contribute significantly to the development and progression of this condition. Monoamine oxidases, which catalyze the metabolism of dopaminergic neurotransmitters, are involved in the pathogenesis of ADHD. The purpose of this study was to determine the connection between polymorphic variations rs۶۳۲۳ and uVNTR in the (Un translate variable nucleotide tandem repeat) MAO-A gene and the risk for ADHD in Iranian-Azeri children. Methods: Clinical evaluation was used to recruit ۱۳۷ ADHD patients (female ۲۲, male ۱۱۵) and ۱۰۰ controls (female ۴۸, male ۵۲) from the East Azerbaijan region in northern Iran. Genomic DNA was taken from their peripheral blood samples and genotyping was performed using PCR-based amplification of target sites. SPSS (Version ۱۶) and the javastat online statistics program (http://statpages.org/ctab۲x۲.html) were used for statistical analysis. Results: The rs۶۳۲۳TT genotype was shown to be a significant risk factor for ADHD (OR ۳.۶۱۹, ۹۵ percent CI ۰.۸۷۸-۱۷.۲۱۳, p = ۰.۰۴۴). In comparison, no significant differences in allele frequencies were observed between ADHD patients and the control group (p > ۰.۰۵). The ۵R allele of uVNTR was shown to have a substantial protective impact against the development of ADHD (OR۰.۳۴۹, ۹۵ percent confidence interval ۰.۱۵۱-۰.۷۹۷, p = ۰.۰۰۶). Conclusion: Our findings indicate that MAOA gene polymorphisms may play a role in the start and development of ADHD in Iranian-Azeri youngsters. However, more research with larger sample sizes is necessary to corroborate these results.

کلمات کلیدی:

ADHD, MAOA, Polymorphism, Iranian-Azeri children