عنوان مقاله:

An Association Analysis of Reelin Gene (RELN) Exon 22 (G/C), Rs.362691, Polymorphism with Autism Spectrum Disorder among Iranian-Azeri Population

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خلاصه مقاله:

Background Autism spectrum disorder (ASD) is a intricate childhood neuropsychiatric disorder that is described by deficits in communication of verbal and non-verbal, reciprocal social interactions, stereotypic behaviors, interests, and activities. The studies of post-mortem neuro-anatomical anomalies have indicated that migration alterations could occur early during development (first trimester) in autistic brain. Since the Reelin gene, plays a crucial role in these migratory processes, it is subsequently considered as a potential candidate gene for autism. Materials and Methods In this case-control study, we recruited 74 patients with ASD and 88 healthy controls from Iranian-Azeri Population. Genomic DNA isolated from blood leukocytes of cases and control individuals by the proteinase K and using salt-out method. Single nucleotide polymorphisms (SNP) genotyping was performed by polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) technique. Results The allele and genotype frequencies did not show significant difference between autistic and control groups (P> 0.05). No significant relationship was observed between the genders and genotypes in autism group (P> 0.05). Conclusion The current study showed that the SNPs rs362691 could not be used as a useful molecular biomarker to predict genetic susceptibility for ASD among Iranian-Azeri patients.

کلمات کلیدی:

Key words: Autism, Reelin gene, Polymorphism, molecular marker