

The Effect of Dopamine D2 Receptor TAQ A1 Allele on Sprinter and Endurance Athlete

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Abstract : Genetic structure is very important to understand the brain dopamine system which is related to athletic performance. Hopefully, there will be enough studies about athletics performance in the terms of addiction-related genetic markers in the future. In the present study, we intended to investigate the Receptor-2 Gene (DRD2) rs1800497, which is related to brain dopaminergic system. 10 sprinter and 10 endurance athletes were enrolled in the study. Real-Time Polymerase Chain Reaction method was used for genotyping. According to results, A1A1, A1A2 and A2A2 genotypes in athletes were 0 (%0), 3 (%15) and 17 (%85). A1A1 genotype was not found and A2 allele was counted as the dominating allele in our cohort. These findings show that dopaminergic mechanism effects on sport genetic may be explained by the polygenic and multifactorial view.

Keywords : addiction, athletic performance, genotype, sport genetics

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