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The Protein Polymorphism of Haptoglobin in Korean Elite Athletes

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In view of the role of haptoglobin as a candidate for physical performance, we investigated the protein polymorphism of the haptoglobin in elite Korean male athletes. The serum sample was collected from 120 Korean male eliteathletes. The haptoglobin phenotypes were determined by polyacrylamide gel electrophoresis, followed by peroxidase staining. The relative genotype distributions of our subjects were comparable with that of Korean general population. This polymorphism, however, was significantly associated with VO2max index in our subjects. An excess of the Hp1 allele was also observed in marathon runners versus the other sporting disciplines, although this did not reach statistical significance. Our results suggest that haptoglobin phenotype may be useful marker for endurance performance in elite Korean male athletes.

Key words: Endurance, Genotype and Haptoglobin