

**The distribution of mitochondrial DNA 5178A/C polymorphism in
Korean elite athletes**

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In the previous studies, some genetic polymorphisms in the human mitochondrial DNA have been associated with athletic performance in several populations. To investigate the relationship between mitochondrial DNA 5178A/C polymorphism and athletic performance in Korean population, blood samples were collected from 100 male Korean elite athletes and 64 sedentary controls. There was no significant difference in allele frequency of mitochondrial DNA 5178A/C polymorphism between two groups ($P > 0.05$). However, 5178A allele frequency in Korean population was very higher than those in other populations studied. Because it has been reported that this genetic polymorphisms is associated with longevity, further study will be needed to clarify the relationship between this genetic polymorphism and life expectancy of Korean population.

Key words: Athletic performance, Mitochondrial DNA and Polymorphism