

## **The Impact of One Session of Kumite Training, Speed Kata and Strength Kata on the Rate of Viscosity, Fibrinogen and Plasma Lipid Profile in Young Karate Player Women**

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**Abstract :** The main aim of this study is to investigate the effect of one session of Karate training (Kumite, speed Kata and strength Kata) on viscosity, fibrinogen and plasma lipid profile in young Karate player women. To this end, 40 individuals with required condition were selected and randomly placed in four groups. 10 mL forearm venous blood was taken before and immediately after a session of training for measuring variables. Data were analyzed using statistical methods (covariance, by consideration of group factor) and Bonferroni post hoc test and the significant difference was determined in  $P \leq 0.05$ . The variation of plasma fibrinogen concentration was not meaningful. The variation of plasma viscosity concentration was not meaningful in groups and between groups. The variation of cortisol concentration was meaningful before and after and between control and experimental groups; however, no difference was observed between three experimental groups. The variation of complete cholesterol, neither tri-glyceride nor intense lipoprotein, was meaningful and significant difference was just seen between control and Kumite groups. The results show that despite meaningful changes in fibrinogen levels, plasma viscosity has not been much affected that might be due to lack of variation in other effective variables such as TG, HDL and hematocrit. Based on the results of present study, it seems that the use of speed Kata seems to be more appropriate to increase the performance of Karate player than strength Karate.

**Keywords :** female karate player, viscosity, fibrinogen, cortisol, lactate di-dehydrogenase

**Conference Title :** ICKESS 2017 : International Conference on Kinesiology, Exercise and Sport Sciences

**Conference Location :** Paris, France

**Conference Dates :** August 28-29, 2017