

Effect of 2 week HIIT training and curcumin supplementation on hs-CRP, IL-6, WBC, vo2max and power in Volleyball girls.

Golsa fanee*, Shahram Gholamrezaie,

The purpose of this study was to Effect of 2 week HIIT training and curcumin supplementation on hs-CRP, IL-6, WBC, vo2max and power in Volleyball girls. 31 volleyball girls in the age range of 18 to 23 years old were randomly divided into three groups: curcumin intake and HIIT, curcumin intake and control. The research method used in this quasi-experimental study was four stages of blood sampling. In the present study, the experimental groups performed two weeks of HIIT and supplementation and the control group did not have any exercise program and supplementation. descriptive statistics to calculate the central indices, K-S test was used to determine the natural distribution of data for inferential analysis of repeated measurement test and Bonferron test and for intra-group comparison by means of test. All statistical operation was performed by software (SPSS) version 23 and significance level of tests at $p \leq 0.05$. The results of repeated-measures analysis of variance showed that there is a significant difference between the results of each blood sampling in the hs-CRP variable in the complement and training group, which is the difference between IL-6, white blood cells, aerobic capacity and the anaerobic power was not significant. Also, the results of one-way ANOVA showed that, apart the first stage, there was a significant difference between the three groups in the hs-CRP variable in the other stages ($P = 0.001$). However, there is no significant difference between the four groups in the three research groups in the variables IL-6, white blood cells, aerobic power and anaerobic power. Conclusion: The results of this study showed that two weeks of HIIT with supplementation of curcumin have the potential for significant reduction of hs-CRP.

Keywords : HIIT, curcumin, hs-CRP, IL-6, WBC, vo2max and power

