
The comparison of 6 and 8 weeks endurance-resistance training on some physical fitness factors, catalase and superoxide dismutase activity and cortisol and hs-CRP changes in 14-16 years soccer players

Farzad Dadashzade*, Arsalan Damirchi,

the purpose of present study was to determine and comparison the effect of two exercise training program on some physical fitness factors, cortisol and hs-CRP changes, and catalase and superoxide dismutase activity in adolescent soccer players. 20 subjects (age: 15 ± 0.91 year; weight: 61.10 ± 10.07 kg; height: 171.60 ± 6.64 cm; BMI: 20.67 ± 2.45 kg.m²) ed and randomly divided into following two groups of 10 persons: 6-week and 8-week group. The training protocol was performed in two phas of general (3 weeks for both groups) and specific training 3 days a week. The type and intensity of training were same for both groups and only the volume was different between them. Physical fitness tests including aerobic power (1609 m), handgrip test, speed (60 m), muscular endurance (push up and sit up) and venous blood samples were collected before and after training period and in the similar situations. The records of VO₂max, speed, push up, and sit up test were improved significantly compared to pre training values. Cortisol concentration of 8-week group decreased significantly compared with pre training levels ($P=0.033$), but there was no significant difference in 6-week group ($P=0.49$). In relation to serum levels of hs-CRP, there were no significant differences between pre and post taining values in none of the groups. Despite the significant increase in SOD activity in both groups (P

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