

Effect of exercise modes with similar intensities on lipid-peroxidation and muscle-damage markers on sedentary males.

ABSTRACT

Depending on the intensity of a physical activity, exercise may impose negative effects on health. This study was conducted to evaluate the effect of the exercise modes with variety intensity levels on the serum concentration of lipid peroxidation and muscle damage markers in sedentary males. Eighty one sedentary healthy males were randomly divided into six groups; three groups attending single-session aerobic exercise with low (n=14), moderate (n=14), and high (n=13) intensities, and three groups were subjected to single-session resistance exercise with low (n=13), moderate (n=13), and high (n=14) intensities. Data analysis showed that the mode of exercise has similar effect on the serum levels of malondialdehyde (MDA) and creatine kinase (CK). It was also found that the observed difference in the effect of low intensity levels of the modes of exercise was statistically significant, only for MDA post-test, not for CK. No significant differences were observed between the effect of both moderate and high intensity levels of aerobic and resistance exercise on both MDA and CK post-test. The results of this study suggest the low intensity level of aerobic and resistance exercise to be applied for more preparation, physical fitness and adaptation to prevent lipid peroxidation and muscle damage in sedentary males.

Keyword: Exercise mode; Similar intensity; Malondialdehyde; Creatine Kinase.