INFLUENCE OF INCREMENTAL AEROBIC EXERCISE ON HOMOCYSTEINE LEVEL IN YOUNG MALES

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Recent studies showed that elevated concentration of plasma homocysteine can be one of the risk factors for cardiovascular disease. The aim of this investigation was to study the effect of 8 weeks incremental aerobic exercise on homocysteine. Twenty-eight sedentary young males (mean ± SD; age: 19±1.2 years and percentage of body fat: 25±1.5) participated in this study, divided into control and experimental groups. The experimental group participated in a regular 8 weeks incremental aerobic exercise while the control group was prevented from any sport activity and just participated in pre- and post-testing. All participants were healthy and free of any medication and they did not have any sport activities during the last 6 months before entering study. However, at least one of their relatives suffered from cardiovascular risk factors. Maximal consumption oxygen (VO2max) was assessed by Bruce incremental treadmill. The blood samples were taken at 07:00 to 8:00 in the morning after an overnight fast for plasma homocysteine. The results showed significant difference in maximum oxygen consumption between experimental and control group in post-test (F=51, p<0.05). No significant effect was found for 8 weeks incremental aerobic exercise on homocysteine concentration (p>0.05). There was no significant difference in homocysteine level in post-test between experimental (X=17.9±8.2 mm/mol/l) and control group (X=15.7±4.8 mm/mol/l) (p>0.05). In conclusion, 8 weeks incremental aerobic exercise cannot reduce plasma homocysteine as risk factors for cardiovascular disease in sedentary young males.