

Original Paper

Effect of aerobic training on Endothelin-1 and Malondialdehyde in inactive elderly women

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Abstract

Background and Objective: Several studies have shown that high level of Endothelin-1 and Malondialdehyde lead to an increase in the risk of coronary artery diseases. This study was done to evaluate the effect of aerobic training on Endothelin-1 and Malondialdehyde in inactive elderly women.

Methods: In this quasi -experimental study, 21 inactive elderly women with range of 60-70 year non-randomly divided into experimental (n=11) and control (n=10) groups. The aerobic training including eight weeks aerobic training (with intensity of 50-70 percent of reserve heart rate), 3 times a week, and 60 minutes per session. Endothelin-1 and Malondialdehyde were measured at baseline and at the end of the study.

Results: After eight weeks of aerobic exercise, Endothelin-1 level reduced in intervention group (35.96%) and control group (41.09%) ($P<0.05$). After eight weeks of aerobic exercise there was no significant difference between intervention and control groups. After eight weeks of aerobic exercise reduce of Malondialdehyde level in intervention and control groups was not significant difference.

Conclusion: Regarding to reducing the serum level of Endothelin-1 in in the control and experimental groups, the aerobic training with moderate intensity did not lead to reduce in levels of serum Endothelin-1 in elderly women.

Keywords: Aerobic training, Endothelin-1, Malondialdehyde, Age, Woman

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