Original Paper

Effect of aerobic training on total antioxidant capacity and pulmonary function in asmatic men

Masoud Moeini (Ph.D)[1], Mojtaba Eizadi (Ph.D)*[2], Shahram Sohaily (Ph.D)[3]

[1]**Assistant Professor, Department of Exercise Physiology, Hamedan Branch, Islamic Azad University, Hamedan, Iran.**
[2]**Assistant Professor, Department of Exercise Physiology, Saveh Branch, Islamic Azad University, Saveh, Iran.**
[3]**Assistant Professor, Department of Exercise Physiology, Shahr-e-Qods Branch, Islamic Azad University, Tehran, Iran.**

Abstract

Background and Objective: Several studies suggest the corelation between antioxidant capacities and pulmonary function and severity of pulmonary asthma. This study was done to evaluate the effect of aerobic training on total antioxidant capacity (TAC) and pulmonary function in asthmatic men.

Methods: In this quasi - experimental study, thirty inactive and overweight adult males with mild to moderate asthma were divided into intervention (aerobic training) and control (no training) groups. The anthropometric and spirometry indeces (FVC, FEV1, FEV1/FVC) and fasting TAC before and after aerobic training program (12 weeks, 3 time/weekly at 60-75% of HRmax) were measered.

Results: After aerobic training program, TAC was significantly increased in interventional group in comparision with before of training ($P<0.05$). FVC, FEV1 and FEV1/FVC were significantly increased in interventional subjects in compared to controls ($P<0.05$).

Conclusion: This study indicated that aerobic training improves antioxidant capacity and pulmonary function in asthma patients. Improved pulmonary function can be attributed to increase in antioxidant capacity induced by aerobic intervention.

Keywords: Aerobic intervention, Antioxidant capacity, Spirometry, Pulmonary Asthma

*** Corresponding Author: Eizadi M (Ph.D), E-mail: izadimojtaba2006@yahoo.com**

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Masoud Moeini (https://orcid.org/0000-0002-1202-876X), Mojtaba Eizadi (https://orcid.org/0000-0003-1989-692X)

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