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The Effect of Endurance Training on Serum VCAM-1 in Overweight Women

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Abstract : Vascular adhesion molecules-1 (VCAM-1) is one of the factors associating obesity and inflammatory lesions like atherosclerosis. The purpose of the present study was to investigate the effects of endurance training on serum concentration of VCAM-1 in overweight women. Thirty female overweight (BMI ≥ 25) voluntarily participated in our study. Subjects were randomly assigned to one of two groups: Endurance training or control group. Training group exercised for 12 weeks, three sessions a week with definite intensity and distance. Pre and post 12 weeks of endurance training blood samples were taken (5cc) in fasting state from all subjects. Data was analyzed via independent t test ($p \leq 0.05$). The results showed that endurance training had significant effect on VCAM, body weight, fat percentage, BMI and maximum oxygen consumption ($p \leq 0.05$). This study demonstrates that endurance training caused a decrease in the adhesion molecules level and decreasing inflammation, endurance training may perhaps play an effective role in atherosclerosis.

Keywords : endurance training, vascular cell adhesion molecules, overweight women, serum concentration
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