

عنوان مقاله:

The effect of aerobic training and pomegranate supplementation on lipid peroxidation and some adhesion molecules in obese women

محل انتشار:

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خلاصه مقاله:

Background: Pomegranate supplement is one of the herbal supplements with healing properties. The purpose of this study was to investigate the effect of 8 weeks of aerobic training and pomegranate supplementation on lipid peroxidation and some adhesion molecules in obese women. Methods: In this randomised double-blind clinical trial, forty women with BMI greater than 30 kg/m² were randomly assigned into four groups of aerobic training, pomegranate, aerobic training + pomegranate, and placebo. Interventions were performed for 8 weeks. The exercise program included running on a treadmill with 65% of maximum heart rate for 16 minutes in the first week, which peaked at 30 minutes and 80% of the maximum heart rate in the eighth week. The groups received either a 200 mg supplement or a placebo daily for two months. Blood samples were collected from all subjects 24 hours before and 48 hours after the intervention to measure the variables. One-way ANOVA and paired t-test were used to compare the changes of variables in the four groups of study and at two blood sampling times (pre and post-test). Results: The results showed that MDA, ICAM-1 and VCAM-1 significantly decreased in three intervention groups (training+pomegranates, pomegranates, and training) ($p < 0.05$). This decrease in the pomegranate+training group was significantly higher than the other two (pomegranates, and training) groups ($p < 0.05$). Conclusion: It seems that eight weeks of aerobic training along with pomegranate supplementation may have a better effect on reducing inflammation and oxidative stress in preventing obesity-related diseases in obese women.

کلمات کلیدی:

aerobic training, Pomegranate, oxidative stress, Adhesion Molecules

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