The effect of 8 weeks of resistance training with and without flow restriction on glutathione peroxidase in inactive overweight women

Poster Presentation

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Abstract
Introduction: Numerous studies have shown that obesity is associated with an increase in free radicals and oxidative stress or a decrease in the body's antioxidant capacity. Obesity increases oxidative stress and lipid peroxidation. Increased oxidative stress is an important factor in obesity-related metabolic syndrome. Therefore, the purpose of this study was to investigate the effect of 8 weeks of resistance training with and without flow restriction on glutathione peroxidase in inactive, overweight women.
Methods: The method of the present study is quasi-experimental with pre-test and post-test design. From the target population, 36 people were purposefully selected as a sample and divided into three groups of 12 people: 1) Intense resistance training group without blood flow restriction 2) Low-intensity resistance training group with blood flow restriction and 3) and control group. The training groups performed their specific resistance training sessions for 8 weeks and 3 sessions of 60-60 minutes each week. Glutathione peroxidase levels were taken from the subjects before and after the training protocols. For normal data distribution and homogeneity of variances, the Shapiro-Wilk test and Leven test were used. Paired t-test was used to evaluate the effects within the group, and Analyse of covariance test (ANCOVA) with Bonferroni post hoc test was used for comparison between groups. SPSS software version 24 was used to analyze the data. The significance level for all statistical methods was considered 0.05.
Results: The present study results showed that performing 8 weeks of resistance training with and without flow restriction significantly affects glutathione peroxidase index in inactive, overweight women.
Conclusion: According to research evidence, these exercises allow athletes who cannot perform high-intensity resistance training due to the risk of muscle and tissue damage to increase their muscle strength and size, thereby increasing the level of muscle function and improving your sports.

Keywords
resistance training; BFR; GPX

Reference:
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