Original Paper

Effect of eight weeks of endurance and resistance training on serum adiponectin and Insulin resistance index of inactive elderly men

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Abstract

Background and Objective: Adiponectin is one of the adiposaitocines which secret from adipose tissue and is very effective in the pathogenesis of obesity and its associated disorders, especially in elderly people who are at risk for cardiovascular disease. This study was carried out to evaluate the effect of eight weeks of endurance and resistance training on adiponectin level, insulin resistance index in inactive elderly men.

Methods: In this quasi-experimental study, 24 inactive elderly men were non-randomly divided into interventional and control groups. The combined training included endurance training (with intensity of 60-70% of maximum heart rate reserve) and resistance training (with intensity of 70% one repetition maximum). The training performed 3 times per week (one hour session) for 8 weeks.

Results: The eight weeks of combined training increased the adiponectin level in interventional group compared to the controls ($P<0.05$). Insulin and FBS levels, insulin resistance index, and body fat percentage significantly reduced in interventional group compared to the controls ($P<0.05$).

Conclusion: The eight weeks of combined training increases the adiponectin level and reduces insulin resistance in elderly men.

Keywords: Elderly, Adiponectin, Insulin resistance, Endurance training, Resistance training

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