

97 EFFECT OF 10 WEEK PROGRESSIVE RESISTANCE TRAINING ON SERUM LEPTIN AND ADIPONECTIN CONCENTRATION IN OBESE MEN

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Background Adiponectin and leptin are closely related to weight control and energy balance, whereas exercise training has beneficial effects in obese men. Hence, the objective of this study was to determine the effects of 10 weeks of progressive resistance training on serum leptin and adiponectin concentrations in obese men.

Methods Sixteen obese men (BMI \geq 30, 18–32 years) in a randomised controlled design were divided into two equal groups (exercise (n=8) and control (n=8) groups). The experimental subjects received resistance training programme. Progressive resistance training was performed three times a week on alternate days for 10 weeks and included seven exercises. At baseline and after 10 weeks, blood samples were taken in fasting state from all subjects and leptin and adiponectin determined by an ELISA technique that was commercially available. The one-way analysis of variance was used in the statistical analysis.

Results Compared to pre-training, the leptin levels decreased ($p < 0.05$) and the adiponectin levels increased ($p < 0.05$) significantly after 10 weeks of progressive resistance exercise in the trained subjects, while it remained unchanged in control subjects ($p > 0.05$).

Conclusions Therefore, according to this results it can be suggested that progressive resistance training for 10 weeks has been an effective therapeutic devise to favourable changes in leptin and adiponectin concentration in obese men.