

Results:

The results of table 2 show that intra-group means concerning the variables of body weight ($p=0.03$) body mass index ($p=0.02$), body fat percentage ($p=0.006$), chemerin ($p=0.001$) and visfatin ($p=0.002$) are statistically significant in aerobic-interval training group. Means difference concerning the variables of body weight ($p=0.02$), body mass index ($p=0.01$), body fat percentage ($p=0.01$), chemerin ($p=0.003$) are statistically significant.

منابع:

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Introduction:

it is believed that aerobic-interval exercises play a significant role in weight loss, however, it seems that the effect of these exercise on chemerin and visfatin, as factors related to obesity, have not been studied sufficiently. Therefore, the aim of this study is to see the effect of aerobic-interval training on chemerin and blood serum visfatin in men with obesity.

Modeling:

This study is semi-experimental, with the plan of two experimental and control groups undergoing pretest and posttest. The statistical society of this study included 24 elderly men with obesity ranging between 68 to 79 years old, with body mass index of 25 to 30 kg per square meter and they were selected by targeted and available sampling. In this study training included aerobic-interval exercises for eight weeks, three sessions per week and each session lasting 45 to 60 minutes. Severe interval training includes: warm-up with stretching movements for 10 minutes and then doing severe interval exercises with 10 minutes of rest between each set.

THE EFFECT OF EIGHT WEEKS HIGH-INTENSITY INTERVAL AEROBIC TRAINING ON CHERMERIN AND VISFATIN IN OVERWEIGHT MEN

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Abstract:

Adipose tissue secretes some hormone-like combinations called adipokines; a better understanding of adipokines can help much in seeing the side effects of obesity. The aim of this study is to see the effect of 8 weeks of aerobic-interval training on serum levels of chemerin and visfatin in elderly men with overweight. In this semi-experimental study, 24 subjects were selected by available and targeted sampling and divided into two experimental group (12 people) and control group (12 people) with their ages ranging between 68 to 79. The subjects took aerobic-interval training for 8 weeks, three days each week and each session lasting 45 to 60 minutes. Blood samples were gathered before and after training intervention. By means of SPSS software, version 16, intra-group and between-group means were calculated by statistical methods of paired and independent sample t-test respectively and the results were analyzed at significance level of $p<0.05$. Eight weeks of aerobic-interval training decreased significantly the variables of weight, body mass index and body fat percentage ($p<0.5$). Also chemerin and visfatin levels decreased significantly. These results show that aerobic-interval training decreases chemerin and visfatin, and probably one of the reasons for physiological changes due to sports activities is the change in these hormones.

Keywords: High-intensity interval aerobic training, Chemerin, Visfatin, Overweight m

Table 2: Comparison of within group variance and between group of some cardiovascular risk factors in Overweight men

Variables	Group(s)	Pre-test M±SD*	Post-test M±SD*	Variations	
				Within groups P-value	Between groups P-value
Weight (Kg)	Exercise	78.16±4.80	77.87±4.50	±0.03	0.02±
	Control	78.72±4.42	78.88±4.73	0.40	
BMI (kg/m ²)	Exercise	28.43±2.05	28.26±2.13	±0.02	0.01±
	Control	28.14±1.77	28.20±1.92	0.98	
Body fat percent (%)	Exercise	44.71±2.38	43.16±2.63	0.006±	0.01±
	Control	44.83±4.84	44.80±5.39	0.85	
Chemerin (pg/ml)	Exercise	133.18±5.82	127.91±8.27	0.001±	0.03±
	Control	127.27±5.42	125.81±8.64	0.25	
Visfatin (ng/ml)	Exercise	1.89±0.12	1.83±0.18	0.002±	0.98
	Control	1.55±0.11	1.49±0.23	0.26	

*Data presented as mean ± standard deviation

±The mean difference is significant at the 0.05 level