

## عنوان مقاله:

The effect of ۱۲ Weeks of Aerobic Interval Training on Chemerin and Vaspin Serum Concentrations and Insulin Resistance Index in Overweight Students

## محل انتشار:

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## خلاصه مقاله:

Background and Objective: Chemerin and vaspin are adipose tissue-driven adipokines and appear to be associated with inflammation and insulin resistance. The aim of this study was to investigate the effect of ۱۲ weeks of aerobic interval training on chemerin, vaspin and insulin resistance index in overweight students. Materials and Methods: Twenty four male students voluntarily participated in this study and were randomly divided into experimental and control groups ( $n=۱۲$ ). The experimental group took part in an aerobic interval training program (۳ days/wk, continued for ۱۲ weeks, ۴۰ minutes each session) and the control group continued their routine daily life. Before and after this intervention program, chemerin, vaspin and insulin resistance index were measured. Paired and independent t- tests and Pearson's correlations were used for data analysis. Results: Results showed a significant decrease in chemerin concentration ( $t= ۵.۰۲$ ,  $P= ۰.۰۰۱$ ) and insulin resistance index ( $t= ۳.۷۳$ ,  $P= ۰.۰۰۳$ ) in the experimental group after ۱۲ weeks of aerobic interval training. The results did not show any significant change in the serum vaspin ( $t= ۲.۰۴$ ,  $P= ۰.۰۶$ ). Also, there was a significant relationship between insulin resistance index and both chemerin ( $P= ۰.۰۰۷$ ) and vaspin levels ( $P= ۰.۰۴$ ). Conclusion: In conclusion, aerobic interval training affects serum chemerin and insulin resistance and suggests that it can play a major role in reducing inflammatory responses caused by overweight and obesity.

## کلمات کلیدی:

Keyword: Chemerin, Vaspin, Insulin Resistance Index, Obesity, Exercise Trainings

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