

عنوان مقاله:

Changes of Plasma Visfatin and Insulin Resistance in Overweight and Obese Non-athlete Adolescents following an Eight- Week-Endurance Rope Training

محل انتشار:

مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان, دوره 22, شماره 94 (سال: 1393)

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نویسندگان:

آقا علی قاسم نیان - *Dept. of Physical Education and Sport Sciences, Faculty of Humanities, University of Zanjan, Zanjan, Iran*

محمد رضا کردی - *Dept. of Exercise Physiology, Faculty of Sports Sciences, University of Tehran, Iran*

عباسعلی گائینی - *Dept. of Exercise Physiology, Faculty of Sports Sciences, University of Tehran, Iran*

بهلول قربانیان - *Dept. of Physical Education and Sport Sciences, Faculty of Education and Psychology, Azarbaijan - Shahid Madani University, Tabriz, Iran*

مهدی هدایتی - *Cellular and Molecular Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

خلاصه مقاله:

Background and Objective: Visfatin is a secreted protein from visceral adipose tissue that has been linked to obesity and associated with health risk factors. The purpose of this study was to examine the effects of 8 weeks of interval endurance rope training on plasma visfatin and insulin resistance in overweight non-athletic adolescents. **Materials and Methods:** In this semi-experimental study, 36 healthy overweight and obese male adolescents were randomly assigned to experimental (n=18) and control (n=18) groups. The experimental group underwent 8 weeks of interval endurance rope training (45 min/d, 4 d/wk). Blood samples were taken before and after the completion of exercise training to assess levels of visfatin, insulin resistance and lipid profiles. Independent T-test and Pearson correlation coefficient were used to analysis the data. **Results:** The results showed that 8 weeks of interval endurance rope training decreased the plasma visfatin, body fat percent, BMI, insulin resistance, waist circumference and triglycerides levels in in the experimental group ($P<0.05$). Also, there was a significant and positive relationship between visfatin, body fat percent and plasma triglyceride levels ($P<0.05$). **Conclusion:** 8 weeks of interval endurance rope training with decreased triglyceride, insulin resistance and obesity induced a significant reduction of plasma visfatin in overweight and obese adolescents. **References** 1- Rezyipour A, Yousefi F, Mahmoodi M, Shakeri M. Relation of adolescent girls nutritional behaviors and physical activity to their understanding of their parents lifestyle. Magazine of Tehran Med-Scil. 2007 5: 409-16 (Persian). 2- Eun Sung K, Jee-Aee Im, Kyoung Chul, et al. Improved insulin sensitivity and adiponectin level after exercise training in obese korean youth. Int J Obes. 2007 15: 3023-30. 3- Haderman W, griffin S: Intetrvention to prevent weight gain: a systematic review of psychological models and behavior change method. Int J Obes. 2000 24: 131-43. 4- Zarghami N, Maleki MJ, Memghani F, Nohamadzadeh G, Porhasan M. Correlation between leptin serum levels with lipid profile and anthropometric indices in women with different grades of obesity. Zanjan Uni Med Sci J. 2010 18 (22): 13-24. 5- Ferguson Michael A, Lesley J, White S. Plasma adiponectin response to acute

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