

عنوان مقاله:

The effect of glucose intake on plasma visfatin response following an aerobic exercise session in male students

محل انتشار:

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خلاصه مقاله:

Introduction: Visfatin is predominantly secreted from visceral adipose tissue and mimics the effect of insulin by binding to insulin receptors. The purpose of the present research is to examine the effect of glucose intake on plasma visfatin concentration following an aerobic exercise session. **Methods:** In a quasi-experimental study, ۱۶ male non-athlete students (21.91 ± 2.31 yrs., 77.53 ± 8.93 kg, 1.768 ± 0.07 cm, 24.31 ± 2.07 kg/m²) were randomly divided into water and glucose groups. Blood samples were collected at five stages: before exercise, immediately after exercise, and ۳۰، ۶۰، and ۹۰ minutes after exercise. The subjects were instructed to perform a ۴۵-minute aerobic exercise (a ۱۰-min warm-up, followed by a ۱-mile running at maximum speed with ۳-minute rests between bouts). Immediately after the second blood sampling, sugary liquids (۱.۵g glucose for each kg body weight) and water (similar volume) were administered. The data was analyzed using repeated measures ANOVA and LSD test at $P < 0.05$. **Results:** Plasma visfatin levels increased immediately after exercise, but the increase was not significant. At the following times (۳۰، ۶۰، and ۹۰ minutes after exercise), plasma visfatin levels decreased in both groups, but the decrease was not significant. Significant difference was observed in the visfatin levels of the glucose group at ۶۰ and ۹۰ minutes after exercise compared to immediately after exercise. The plasma glucose level of the glucose group was significantly lower than the water group. Significant increase in plasma insulin was observed by glucose intake at ۳۰ and ۶۰ minutes after exercise. Although at ۹۰ minutes after exercise the plasma insulin level of the glucose group was higher than that of the water group, but the difference was not significant. **Conclusion:** According to the findings, changes made in visfatin levels following acute exercise and glucose intake is not significant. So, probably visfatin has no role in improving the .acute exercise-induced metabolic status and glucose intake in healthy subjects

کلمات کلیدی:

Glucose, Visfatin, Aerobic Exercise, Glucose, Visfatin, Aerobic Exercise

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