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STUDENTŲ MOKSLINĖS VEIKLOS TINKLO LXXVI KONFERENCIJA



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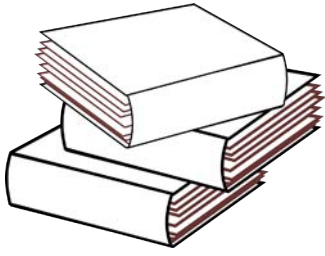
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Fiziologijos, biochemijos, mikrobiologijos ir laboratorinės medicinos katedra

FIZIOLOGIJOS GRUPĖ

ASSESSING BLOOD IRISIN LEVELS IN RESPONSE TO PERCEIVED EXERCISE INTENSITY: A PRELIMINARY ANALYSIS

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Background and Aim. This research seeks to examine the relationship between Irisin concentrations and the perceived intensity of high-intensity workouts. Irisin, a myokine secreted by skeletal muscles and involved in metabolic regulation, may exhibit dynamic changes in response to different exercise intensities. Understanding the relationship between Irisin levels and exercise intensity provides valuable insights into the metabolic adaptations induced by exercise. By exploring this connection, this study seeks to enhance the understanding of how exercise intensity influences Irisin secretion and its potential implications for metabolic health.

Materials and Methods. Fifteen participants, consisting of eight women and seven men, were enrolled in this study, with all procedures conducted following ethical guidelines and informed consent obtained from each participant. Pre-exercise and post-exercise blood samples were collected from participants who refrained from any exercise activity for at least 48 hours prior to testing. These blood samples were analyzed for Irisin levels using enzyme-linked immunosorbent assay (ELISA) detection kits. Additionally, subjective ratings of high-intensity exercise intensity were recorded using standardized scales.

Results. Analysis of the data obtained from the fifteen participants ($n=15$) revealed significant findings regarding the relationship between perceived intensity of high-intensity exercise and Irisin levels after exercise. Data showed that after high-intensity exercise, Irisin levels were assessed at a mean concentration of 85.25 ng/ml, with participants reporting a mean perceived exercise intensity of 7.867. A Wilcoxon signed-rank exact test indicated a significant association between these variables ($V = 0$, $p\text{-value} = 0.00006104$), suggesting that the intensity of high-intensity exercise is correlated with the post-exercise levels of Irisin.

Conclusions. This study provides valuable insights into the connection between Irisin levels and the perceived intensity of high-intensity exercise. The observed increase in Irisin levels following high-intensity exercise suggests its potential role as a mediator in exercise-induced metabolic adaptations. These findings underscore the importance of exercise intensity in modulating metabolic responses, particularly through the release of myokines such as Irisin. However, the study is limited due to its relatively small sample size. Therefore, further research with larger sample sizes is warranted to validate these findings and explore their implications for metabolic health.

Keywords. Irisin; Exercise Intensity; Metabolic Health.