عنوان مقاله:

The Effect of Resistance Training on G۶Pase Gene Expression in Liver Hepatocytes, Glucose and Insulin Resistance Levels in Type ۲ Diabetic Rats

محل انتشار:

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خلاصه مقاله:

Objective: The aim of this study was to determine the effect of ۱۲ weeks resistance training on G۶Pase expression in liver cells, as well as glucose and insulin levels in type ۲ diabetic rats. Materials and Methods: In this experimental study, ۱۶ wistar rats were selected as the research sample. After injection of nicotinamide and streptozocin to induce diabetes, the rats were randomly divided into two groups of resistance training and control. The resistance group participated in a course of resistance training for up to ۱۲ week in five sessions per week, with intensity of ۷۵% and a time of ۳۰ to ۴۵ minutes. Finally, ۴۸ hours after the last exercise session, G۶Pase expression in liver cells, as well as glucose and insulin levels were measured in both groups. Results: Comparison of resistance and control training groups showed a decrease in glucose levels (P-value= ۰.۰۰۱) and increased insulin levels (P-value= ۰.۰۰۱). Exercise also reduced the expression of G۶Pase in liver cells in the resistance training group (P-value= ۰.۰۰۱). Conclusion: Based on the results of the study, it is recommended that diabetics use resistance training under the supervision of a specialist to reduce the negative effects of diabetes.

کلمات کلیدی:

Resistance training, Type ۲ diabetes, Gluconeogenesis, G۶Pase gene expression