

## عنوان مقاله:

Effect of 12 weeks resistance training on GLUT4 expression and glycemic profile in Wistar rats with type 2 diabetes

## محل انتشار:

سومین کنگره بین المللی و پانزدهمین کنگره ملی ژنتیک ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

**Purpose:** the Regular exercise has been introduced as a type of non-drug treatment in type 2 diabetes, although the molecular mechanisms responsible for genetic adaptation are less well-known. Male Wistar rats were diabetic with nicotinamide-streptozotocin ( $220 \pm 20$  g) and were randomly divided into two groups: exercise ( $n = 8$ ) and control ( $n = 8$ ). The exercise group participated in a 12-week resistance training program of 3 sessions per week, and the control group did not participate in any exercise program. Relative expression of GLUT4 gene in gastrocnemius muscle, fasting glucose and insulin resistance and insulin resistance were measured in 48 hours after the last training session in both groups. Data analysis was performed using independent t-test. Changes were less than 5% significant. **Results:** Compared to rats in control group, there was a significant decrease in fasting glucose levels by exercise intervention in exercise group ( $p = 0.000$ ). Serum insulin increased significantly following resistance training ( $p = 0.011$ ). The expression of GLUT4 in the gastrocnemius muscle increased significantly ( $p = 0.021$ ), but insulin resistance did not significantly change ( $p = 0.121$ ). **Conclusion:** although insulin resistance did not change, improvement in glycemic profile in response to resistance training may be due to an increase in insulin serum levels .or an increase in glucose transmitters in muscle tissue

## کلمات کلیدی:

Type 2 diabetes, Resistance exercise, Glycemic profile, GLUT4 expression

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/983865>

