

عنوان مقاله:

The Effect of Muscle Endurance Training on Blood Pressure, Resting Heart Rate and Endothelin- γ Levels in Inactive Men

محل انتشار:

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خلاصه مقاله:

Background and Aim: Sports activities play a protective and preventive role against heart diseases by reducing their risk factors. This study aimed to evaluate the effect of resistance training by muscle endurance method on blood pressure, heart rate, and plasma endothelin- γ levels of inactive healthy men. **Materials and Methods:** In this quasi-experimental study, 30 middle-aged men (Mean \pm SD age: 47.03 \pm 2.12 years, Mean \pm SD height: 172.90 \pm 3 cm, Mean \pm SD weight: 80.70 \pm 3.1 kg, Mean \pm SD Body Mass Index: 27.47 \pm 3.66 kg/m², and Mean \pm SD waist to hip ratio: 0.98 \pm 0.27) were purposefully selected and then randomly divided into the control and experimental groups (each 15 members). The experimental group performed 8 weeks of resistance training, three sessions per week with an intensity of 40% to 70% of 1 repetition maximum. Plasma endothelin- γ , systolic and diastolic blood pressure, and resting heart rate were measured before and after 8 weeks of exercise. The dependent t-test was used to examine intra-group changes, and the independent t-test was used for inter-group differences. The significance level was considered less than 0.05. **Results:** Eight weeks of muscular endurance resistance training significantly reduced endothelin- γ plasma levels of inactive middle-aged men ($P=0.002$). Also, 8 weeks of resistance training significantly reduced their systolic blood pressure ($P=0.001$) and resting heart rate ($P=0.001$), but the decrease in diastolic blood pressure was not significant ($P=0.041$). **Conclusion:** Based on the present study results, muscular endurance resistance training as a preventive factor can decrease the risk of hypertension and heart disease in healthy middle-aged men by reducing plasma endothelin- γ levels, systolic blood pressure, and resting heart rate.

کلمات کلیدی:

Resistance training, Endothelin γ , Blood pressure, Heart rate

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