

عنوان مقاله:

Interactive Effects of Continuous and Interval Training with Crocin Consumption on Interleukin 17 and 18 in the Soleus Muscle of Type 2 Diabetic Rats

محل انتشار:

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خلاصه مقاله:

Introduction: Muscular inflammation and atrophy is one of the characteristics of diabetes that causes motor disability in these individuals. Studies have shown that exercise training with different intensities and the use of herbal drugs can have favorable effects on diabetes. The aim of this study was to interactive effects of continuous and interval training with crocin consumption on interleukin 17 and 18 in the Soleus Muscle of type 2 Diabetic Rats. **Methods:** In this experimental study, 49 adult diabetic rats were randomly assigned to seven groups, including: high intensity interval training (HIIT), low intensity continuous training (LICT), HIIT + crocin consumption, LICT + crocin consumption, crocin consumption, sham, and control. HIIT and LICT groups did training for eight weeks on rodent treadmill, respectively. Crocin groups received 25 mg/kg of daily crocin for 8 weeks peritoneally. The gene expression levels of the variables were measured using Real Time-PCR. **Results:** HIIT increased IL-17 and 18 in the Soleus muscle tissue ($p \leq 0.05$), but LICT does not have a significant effect on changes in IL-17 and IL-18 ($p \geq 0.05$). Crocin consumption decreased expression of IL-18 and increased IL-17 in the Soleus muscle tissue ($p \leq 0.05$), and interaction of LICT and crocin consumption was significant in increasing IL-17 and IL-18 ($P \leq 0.05$). **Conclusion:** HIIT seems to have inflammatory effects in the muscle tissue of type 2 diabetic rats. However, the interaction of LICT and crocin was significant in the increase of IL-17 and IL-18 in the Soleus muscle tissue of type 2 diabetes rats.

کلمات کلیدی:

Training, Crocin, IL-17, IL18, Diabete

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