

عنوان مقاله:

The Effect of Resistance Training on Malondialdehyde and Protein Carbonyl Concentration in the Heart Tissue of Rats Exposed to Stanozolol

محل انتشار:

مجله تحقیقات دارویی و بیومدیک، دوره 6، شماره 4 (سال: 1399)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Ayat Arjmand - *Department of Physical Education and Sport Sciences, Faculty of Human Science, Mahallat Branch, Islamic Azad University, Mahallat, Iran*

Bahram Abedi - *Department of Physical Education and Sport Sciences, Faculty of Human Science, Mahallat Branch, Islamic Azad University, Mahallat, Iran*

Seyed Ali Hosseini - *Department of Sport Physiology, Faculty of Human Science, Marvdasht Branch, Islamic Azad University, Marvdasht, Iran*

خلاصه مقاله:

Background: Consumption of anabolic steroids causes damage to various tissues, including the heart. Objectives: This study aimed to investigate the effect of Resistance Training (RT) on Malondialdehyde (MDA) and Protein Carbonyl (PC) in the heart tissue of rats exposed to stanozolol (S). Methods: In this experimental study, 18 rats with the mean age of 8 weeks and weight range of 150 to 200 g were selected and divided into three groups of 6 rats: 1. Sham (normal saline consumption) (Sh), 2. S, and 3. S+RT. For 8 weeks, the S and S+RT groups received 5 mg/kg/d S, and the S+RT group performed 5 RT sessions per week. Measurement of MDA and PC in the heart tissue was performed with the enzyme-linked immunosorbent assay. Results: Stanozolol had a significant effect on increasing MDA ($P=0.001$) and PC ($P=0.03$) in the heart tissue. However, RT led to a decrease in MDA and PC in the heart tissue of rats exposed to S ($P=0.001$). Conclusion: It appears that S consumption leads to an increase in MDA and PC levels in the heart tissue, while RT can improve the elevated levels of MDA and PC.

کلمات کلیدی:

Malondialdehyde, Protein carbonyl, Resistance training, Stanozolol, Heart

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<https://civilica.com/doc/1872390>

