عنوان مقاله:

Effect of Eight Weeks of Resistance Training and Consumption of Tribulus Terrestris on Androgenic Receptor-۱, Fas Ligand Gene Expression, and Lipid Profiles in Rats Exposed to Stanozolol

محل انتشار:

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خلاصه مقاله:

Background: Protective effect of medicinal plants on the heart has been reported, but the effect of resistance training (RT) and Tribulus terrestris (TT) on the heart exposed to anabolic-androgenic steroids (AAS) abuse is still unknown. Objectives: The present study aimed to investigate the effect of RT and TT on androgen receptor-۱ (ar-۱), Fas ligand (fasl) gene expression and lipid profiles in rats exposed to stanozolol (S). Methods: Thirty-five male rats were selected and divided into ۷ groups as follows: (۱) sham (normal saline/Sh), (۲) stanozolol (S), (۳) S+۱۰۰ mg/kg TT (S+TT۱۰۰), (۴) S+ ۵۰ mg/kg TT (S+TT۵۰), (۵) S+RT+TT, (۶) S+RT+TT۱۰۰, and (۷) S+RT+TT۵۰. Over a course of eight-week period, groups ۳, ۴, ۶, and ۷ received ۵۰ and ۱۰۰ mg/kg/d doses of TT peritoneally and groups ۵-۷ performed three sessions of increasing RT per week. Results: RT decreased plasma cholesterol and low-density lipoprotein cholesterol (LDL-C) levels, as well as ar-۱ and fasl gene expression in S-exposed rats (P<۰.۰۵). TT۵۰, TT۱۰۰, SRTT۱۰۰, and SRTT۵۰ reduced ar-۱ and fasl gene expressions (P<۰.۰۵). TT۵۰ reduced triglyceride (TG), cholesterol and increased high-density lipoprotein-cholesterol (HDL-C) (P≤۰.۰۱), and TT۱۰۰ decreased LDL-C levels (P<۰.۰۵). Additionally, SRTT۱۰۰ reduced TG, cholesterol, and LDL-C levels and increased HDL-C level (P<۰.۰۵), and SRTT۵۰ decreased cholesterol level and increased HDL-C level in S-exposed rats (P<۰.۰۵). Conclusion: RT and consumption of TT appear to have protective effects on the improvement of apoptosisdependent androgen receptor-۱ and lipid profile in S-exposed rats.

کلمات کلیدی: