

عنوان مقاله:

Troxeutin Chronic Treatment Protects against Fructose-induced Metabolic Syndrome in Male Rats

محل انتشار:

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خلاصه مقاله:

Background and Aims: Metabolic syndrome, a common metabolic disorder, for the serious health consequences such as insulin resistance and lipid abnormalities has been considered as a major clinical challenge with obscure causes. Oxidative stress is an important component of metabolic syndrome, contributing in its development. Troxeutin, a semi-synthetic derivative of natural bioflavonoid rutin, exerts various pharmacological activities, which among all, strong anti-oxidative property is of great importance. The aim of the current study was to evaluate the effects of troxeutin on metabolic parameters and oxidative stress in metabolic syndrome induced by fructose in male rats. **Materials and Methods:** In order to induce metabolic syndrome, animals received the water containing ۲۰% fructose for ۸ weeks.

Troxerutin was administered to animals with the dose of 150 mg/kg orally for 4 weeks after induction of metabolic syndrome following biochemical analysis and oxidative stress marker assessment. Results: Data showed that high-fructose diet leads to elevation of blood glucose and insulin resistance and causes abnormalities in lipid profile as well as oxidative stress enhancement (signs of a metabolic syndrome) ($p<0.001$). Troxerutin administration improved the detrimental effects of metabolic syndrome on biochemical factors and diminished oxidative stress ($p<0.001$). Conclusions: Troxerutin administration reverses the deleterious effect of metabolic syndrome in rats with high-fructose diet.

کلمات کلیدی:

Fructose, Insulin resistance, Metabolic syndrome, Oxidative stress, Troxerutin

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