

ملخص البحث رقم (6)

Title: Protective effect of Hesperidin and Tiger nut against Acrylamide toxicity in female rats.

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ABSTRACT

Phytochemicals that have antioxidant effect play important role in protection against several diseases in humans. This study was carried out to evaluate the efficacy of hesperidin and tiger nut against the early changes that may be related to the toxicity of acrylamide in female rats. 72 Sprague Dawley female rats were divided into six groups (12 rat/group): control group (I); hesperidin (HES) treated group (II); tiger nut (TN) treated group (III); Acrylamide (ACR) treated group (IV); HES-ACR treated group (V); and TN-ACR treated group (VI). There was a significant increase in the levels of serum carcino embryonic antigen (CEA), malondialdehyde (MDA), protein carbonyls (CO), ALT, AST, LDH, urea and creatinine while no significant changes of serum total sialic acid, progesterone (prog) and estradiol (E2) levels, and significant decreases of body weights, catalase (Cat) activity, superoxide dismutase (SOD) activity, reduced glutathione (GSH) level, and glutathione peroxidase (GSH-Px) activity of ACR treated group compared with the control. Our results suggested that supplementation of a diet with hesperidin provided antioxidant defense more significant than tiger nut against the toxicity of ACR in breast, liver and kidney tissues.

Keywords:

Acrylamide, Hesperidin, Tiger nut, Oxidative stress & Histopathology