

Modulatory Effect of Propolis against Nephrotoxicity Induced in Rats by Methotrexate



Tahani Alnomasi ^{a, b}; Ehab M. M. Ali ^{a, c}; Galal Khan ^a

^a Biochemistry Department, Faculty of Science, King Abdulaziz University, Jeddah, Saudi Arabia.

^b Biochemistry Department, Faculty of Science, Hail University, Hail, Saudi Arabia.
Email. tahaniss@gmail.com

^c Division of Biochemistry, Chemistry Department, Faculty of Science Tanta University, 31527, Tanta, Egypt

and improves the antioxidant activities in the kidney
of rats treated with MTX.

Abstract

Methotrexate (MTX) is chemotherapy treats immune and cancer diseases. MTX has deleterious effects on kidney. The aim of this study assessed the protective effect of propolis against dysfunction and oxidative stress induced by MTX in kidney. Rats were divided equally into 4 groups; control, propolis, MTX injected *i.p.* with 20 mg/kg, MTX and propolis. Serum urea and creatinine serum kidney levels were lower in rats injected with MTX and treated with propolis as compared with the rats induced MTX. Kidney glutathione level was elevated; however, glutathione peroxidase and catalase activities were decreased in rats administrated MTX and treated with propolis compared with rats injected with MTX alone. MTX at 20 mg/kg dose caused nephrotoxicity and ameliorative by propolis. It was concluded that propolis decreases the toxicity and oxidative stress

Keywords: Methotrexate; Propolis; kidney diseases.