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HEPATOPROTECTIVE EFFECT OF *GLYCYRRHIZA GLABRA* L. EXTRACTS AGAINST CARBON TETRACHLORIDE-INDUCED ACUTE LIVER DAMAGE IN RATS

LAYLA ABD-AL-SATTAR SADIQ LAYLANI

Community Health Department .Institute of Kirkuk Technical .Northern Technical University, Iraq

ABSTRACT

Hepatoprotective potential of aqueous extract of Glycyrrhiza glabra (QGG) and ethanol extract of G. glabra (EGG) and its possible mechanism were studied in rats intoxicated with carbon tetrachloride (CCl_4) in the present study.For acute hepatopathy experimental animals were intraperitoneally injected with CCl_4 at a dose of 1.0 ml/kg as a 50% olive oil solution. The rats were orally given the QGG and EGG at doses of 250, 500 mg/kg beside reference drug Silymarin 20 mg/kg after 6 h of CCl_4 treatment. At 24 h after CCl_4 injection, samples of blood and liver were collected and then biochemical parameters and histological studies were carried out. Results showed that both extracts and Silymarin inhibited significantly the activities of aspartate aminotransferase (AST) and alanine aminotransferase (ALT) and increased the activity of superoxide dismutase (SOD). Thus we can conclude that the QGG and EGG (250mg/kg and 500mg/kg) possesses dose dependent, significant protective activity against acute liver injuries induced by CCl_4 and this activity can be attributed to the antioxidant property of G. glabra.

KEYWORDS: Glycyrrhiza Glabra; Carbon Tetrachloride; Aspartate aminotransferase; Alanine Aminotransferase; Superoxide Dismutase

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