Curing potency of the natural honey against toxicity of Doxorubicin (DOX)

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Using biochemical and histological measurements the curing potency of the natural honey against the toxic effects of Doxorubicin on both liver and kidney of mice was assessed. A total of 106 healthy male Albino mice Mus musculus strain weighing 37±3 gm was used. Experimental mice were intra-peritoneal injected a dose of Doxorubicin (DOX) of 4 mg/Kg/week for seven weeks while the treated groups (DOX + honey) were fed the pure natural honey on daily basis. The toxic effects of DOX on both Liver and renal tissue involved loss of weight, destruction of liver and kidney cellular structures, blood congestion, accumulation of inflammatory cells and atrophied hepatocyte in liver and, detachment of the cellular lining of the renal tubules and glomeruli in kidneys. In addition, cellular disintegration in renal tissues i.e. necrosis, fibrosis and vacuolation were comparable to those of control. Daily ingestion of natural honey for 7 weeks has led to significant (p ≤ 0.01-0.001) improvement of these symptoms which represented as an increase in body weight in comparison with control animals while tissues in both liver and kidneys showed general cellular integrity in normal hepatic cords in liver and renal capsules, glomeruli, Bowman’s capsules and convoluted tubules in the kidneys. It is concluded that the ingestion of natural honey has a protective potency against the toxic effects of DOX in kidney tissues.

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