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Tukhm-E-Kharbuza (*Cucumis melo* Linn.) Ameliorates Renal Oxidative Damage Induced by Gentamicin in Albino Rats

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Cucumis melo Linn. is an annual creeping herb. In Unani medicine kernel of seed (Magz) is commonly used in renal disorders. Large numbers of research studies have proved that gentamicin is altering the concentrations of antioxidant systems which are responsible for renal injury. Hence, the present study was carried out to evaluate the nephroprotective activity of methanolic extract (ME-CM) and its chloroform soluble (CHSF-CM) and insoluble (CHIF-CM) fractions of kernel of seed of *Cucumis melo* in gentamicin-induced nephrotoxicity. The rats were divided into five groups of six animals each. Group I served as control (1% CMC; 10 mg/kg/d), while group II (Toxicant), III, IV and V received 1% CMC, higher dose (HD) of ME-CM 190 mg/kg/d, CHSF-CM 100 mg/kg/d and CHIF-CM 90 mg/kg/d respectively. The 1% CMC and the test drugs were given orally suspended in vehicle (distilled water) in the volume of 10 ml/kg for 8 days. In addition to this, the animals in groups II, III, IV and V were co-administrated subcutaneously daily with gentamicin in a dose of 100 mg/kg in neck region in the volume of 1ml/kg for last 5 days. On 9th day animals were sacrificed and the sera were estimated for concentration of BUN and serum creatinine. Kidneys were removed for estimation of malondialdehyde (MDA) formation, Superoxide dismutase (SOD), Catalase (CAT), Glutathione peroxidase (GPx), Reduced glutathione (GSH), and for histopathological examination. Gentamicin induced rise in the BUN, Scr and Lipid Peroxidation, decrease in CAT, SOD, GPx and GSH were significantly inhibited by co-administration of ME-CM and CHIF-CM but co-administration of CHSF-CM fraction did not show significant alteration in the biochemical parameters. The histopathological and biochemical parameters confirmed that the ME-CM and CHIF-CM protect against gentamicin induced renal oxidative damage.

Keywords: Nephroprotective, *Cucumis melo*, Gentamicin, Histopathology