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Study of *Portulaca oleracea* for its nephroprotective effect against Gentamycin and Doxorubicin induced nephrotoxicity

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Portulaca oleracea is an important drug of Unani medicine described to be effective in renal diseases. In the present study therefore the nephroprotective effect of Kurfa was studied in experimentally induced nephrotoxicity by the administration of gentamycin (80 mg/kg) and doxorubicin (7.5 mg/kg) in different groups albino rats. The hydroalcoholic extract of Khurfa in the dose of 230 mg/kg (group A) and 390 mg/kg (group B) was administered orally for 14 days to the animals pretreated with gentamycin and doxorubicin. The nephroprotective effect was evaluated on the basis of biochemical estimation of serum creatinine, blood urea and urine protein in gentamycin treated group and serum creatinine, blood urea, serum cholesterol, serum albumin and urine protein in the group treated with doxorubicin. Histopathological study of the kidneys was also done to confirm the results. The findings were compared with negative and plain control groups using one way ANOVA and Tukey Kramer multiple comparison test.

The test drug in gentamycin induced nephrotoxicity group produced significant effect as the concentration of urea and serum creatinine decreased significantly ($p < 0.01$). The proteinuria also reduced significantly. The test drug in doxorubicin treated group was found to decrease blood urea ($p < 0.01$) and serum cholesterol ($P < 0.001$) in pretreated group at higher dose level. In post-treated group the drug was effective at both the doses however the higher dose was comparatively more efficacious. Urinary protein was also found decreased significantly. Histopathological studies demonstrated dose dependant effect of the test drug in both the pre and post treated groups. The study demonstrated that Khurfa (*Portulaca oleracea* Linn.) possesses significant nephroprotective effect against gentamycin and doxorubicin induced nephrotoxicity.

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