

“EVALUATION OF NEPHROPROTECTIVE ACTIVITY OF POLYHERBAL FORMULATION IN GENTAMICIN INDUCED NEPHROTOXICITY IN RATS”

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ABSTRACT

Objectives: To Evaluate the Nephroprotective Effect of Polyherbal Formulation in Gentamicin induced Nephrotoxicity in Rats

Material and methods: In these model of Nephrotoxicity, 36 adult male wistar rats were divided in to 6 groups.group-1 and group-2 served as a Normal control and positive control respectively. group-3 served as a standard group (prednisolone 1mg/kg) and group-4, 5, and 6 was a treatment group which received polyherbal formulation with the dose of 250 mg/kg, 500 mg/kg and 700 mg/kg respectively. After the experimental period blood sample were collected for biochemical parameters and kidney was isolated for histopathological studies.

Results: Gentamicin treatment caused nephrotoxicity as evidenced by marked elevation in creatinine, blood urea nitrogen, and uric acid. Co-administration of polyherbal syrup with gentamicin showed decrease in creatinine, Blood urea nitrogen, and Uric acid. In addition, Histopathological studies also showed protective nature of polyherbal syrup against gentamicin induced necrotic damage of renal tissue.

Conclusion: It was observed that Polyherbal syrup containing *Boerhavia diffusa*, *Plumbago zeylanica*, *Tribulus terrestris*, *Piper longum* conferred nephroprotective and anti-oxidant activities by histopathological and biochemical observation against gentamicin induced nephrotoxicity in rats. In the near future polyherbal syrup could lead to discovery of novel herbal combination drug for treatment of drug induced nephrotoxicity.

Key words: Polyherbal syrup; Nephroprotective; Gentamicin; Antioxidant