

Nephroprotective Activity of Aqueous Methanolic Extract of Aerva Lanata (Busehri Booti) against Cisplatin Induced Nephrotoxicity in Rats

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Abstract : Chronic renal failure is a debilitating condition responsible for high morbidity and mortality. Because of its costs and the complexity of its treatment, proper care is available to very few patients in India. According to researchers, the number of adults aged 30 or older who have chronic kidney disease is projected to increase from 13.2 percent currently, to 14.4 percent in 2020 and 16.7 percent in 2030. The aerial part of Aerva lanata (Busehri booti) have been used in kidney disorders by the Unani physicians. In the present study, the effect of extract of Aerva lanata was investigated on cisplatin-induced nephrotoxicity in rats. The renal effects of this drug was evaluated by monitoring levels of blood urea nitrogen (BUN), serum creatinine, serum uric acid in blood and histopathological examination of kidney. Aerva lanata was evaluated at two different doses (1400 mg/kg and 2800 mg/kg). The effect of higher dose was more pronounced in terms of inhibition in the rise of BUN, serum creatinine and uric acid. Higher dose show greater prevention in the rise of BUN, serum creatinine, and uric acid. The histopathological examination of the kidney tissue of the rats treated with aqueous methanolic extract of Aerva lanata (Higher dose-2800 mg/kg) showed marked inhibition of glomerular congestion, tubular casts, peritubular congestion, epithelial desquamation, blood vessel congestion, interstitial edema and inflammatory cells produced by the cisplatin-induced nephrotoxicity. This finding clearly indicates the protective role of Aerva lanata at higher dose. Present investigation validates the use of Aerva lanata in kidney disorders by Unani physicians.

Keywords : Aerva lanata, Busehri booti, nephroprotective, unani medicine

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