Ficus Carica: Nature's Shield for Kidney Health

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ABSTRACT

Introduction: The increasing prevalence of kidney diseases has prompted the search for natural therapeutic agents that can offer nephroprotective benefits (Tienda-Vázquez *et al*., 2022). *Ficus carica*, commonly known as the fig, has long been valued for its medicinal properties in traditional medicine because of variety of bioactive substances including flavonoids, phenolic acids and tannins (Rasool *et al*., 2023).

Objective: The present study is aimed to explore the nephroprotective effects of aqueous methanolic extract of *Ficus carica*, particularly in its dried form, in gentamicin-induced nephrotoxic rabbits, highlighting its potential as a natural shield for kidney health.

Methodology: Aqueous methanolic fruit extract (AqMFEt) of dried figs was prepared via Bohm and Kocipai-Abyazan method (Rahman *et al*., 2023). To induce nephrotoxicity in experimental rabbits' gentamicin was injected intraperitoneally with the dosage of 80 mg/kg body weight. The experimental rabbits were divided into five groups (n=6); normal control (distilled water; 1ml/kg), gentamicin-induced (GI) nephrotoxic group (distilled water; 1ml/kg), GI negative control (0.05% dimethylysulphoxide (DMSO); 1ml /kg), GI positive control (silymarin; 200 mg/kg) and test group (AqMFEt 200 mg/kg). All the treatment was administered consecutively for 10 days in overnight fasted rabbits. Urea, creatinine, blood urea nitrogen (BUN) and total protein were estimated in serum after completion of animal trial.

Result: The test group administered with AqMFEt significantly (p<0.05) decreased urea, creatinine, blood urea nitrogen and total protein as compared to GI nephrotoxic group. The findings indicate that dried figs usage may enhance renal well-being as it improves various biochemical markers, thus mitigating oxidative stress, reduce inflammation and support renal function.

Conclusion: AqMFEt of dried figs may offer protection against nephrotoxic insults, chronic kidney disease (CKD) and acute renal injury presenting a potential natural therapeutic approach for the treatment of kidney diseases.

Keywords: Kidney, Ficus Carica, Nephroprotective, Gentamicin.

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