

Objective and Plan of Work

In recent Scenario, Kidney diseases are the global health issue due to overuse of drugs and medication, environmental toxins, occupational chemicals, smoking as well as alcohol consumption. Nephrotoxicity focuses predominately on drug induced nephropathy. The frequency of drug-induced nephrotoxicity is approximately 14-26% worldwide per year. Cisplatin is the platinum containing antineoplastic drug and its dose limiting side effect of is nephrotoxicity. About 28-36% of patients receiving high-dose cisplatin suffer from nephrotoxicity. *Exacum lawii* is folklore medicinal plant used for the treatment of kidney diseases and eye infection. In this context, the present study was undertaken to evaluate the pharmacognostical standardization, phytochemical standardization and ethnopharmacological evaluation of *Exacum lawii*.

OBJECTIVE

- To establish the pharmacognostical standardisation including DNA finger printing profile, physicochemical parameters, nutritional analysis and phytochemical screening of *Exacum lawii*.
- HPLC standardization of *Exacum lawii* using chemotaxonomic marker swertiamerin and its isolation.
- To investigate virtually for the binding interaction of swertiamerin within the active site of iNOS enzyme by docking study.
- To investigate the oral toxicity profile of *Exacum lawii* in experimental rats.
- To investigate the nephroprotective activity of *Exacum lawii* extract and swertiamerin in cisplatin induced nephrotoxicity in rats.

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- To investigate the protective effect of *Exacum lawii* extract and swertiamerin in cisplatin treated human embryonic kidney cell line (HEK-293).
- To investigate the antibacterial and antifungal activity of volatile oil and extract *Exacum lawii* against ocular infection.

PLAN OF WORK

