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Evaluation of Synergistic Antiurolithiatic Effect of *Tribulus terrestris* Fruit extract with Selected Indian Medicinal Plants.

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Objectives: *Tribulus terrestris* is one of the leading medicinal plants which is used in the treatment of various kidney disorders including stones by various ayurvedic practitioners. Based on the literature survey, two more medicinal plants, *Terminalia chebula* and *Tinospora cordifolia*, were selected, which were claimed in traditional medicine to dissolve renal stones. So the present study was undertaken to investigate the combined synergistic antiurolithiatic effect of *Tribulus terrestris* Linn (Gokhru) with aqueous extract of *Terminalia chebula* and *Tinospora cordifolia*.

Methods: Renal calculi were induced in rats by administration of 0.75% ethylene glycol in drinking water and co-treated orally with standard drug, Cystone (750 mg/kg) (Group I), with combined aqueous extracts (200 mg of *Tribulus terrestris* Aq. Extract with 100 mg *Terminalia chebula* and *Tinospora cordifolia* Aq. extract) (Group II) in doses of 500 mg/kg and with aqueous extract of *Tribulus terrestris* alone (Group III) in doses of 500 mg/kg for 21 days. Weekly body weights were recorded. On day 22, urolithiasis was confirmed by assessing the urinary parameters (urine volume, pH, uric acid etc) serum biochemical parameters, oxidative stress parameters and histology of kidney.

Results: Treatment with combined extracts (Group II) attenuated the EG-induced decrease significantly in body weight and elevation in urinary parameters and serum biochemical parameters as compared to single extract of Gokhru (Group III). Combined extract treatment also reversed EG-induced decrease in urine volume, pH, magnesium and creatinine clearance, oxidative and histological damages in kidneys. Results were comparable to standard drug, Cystone. Results indicated that EG administration caused renal calculi formation which is prevented by treatment with combined extracts.

Conclusions: Combined aqueous extracts of *Tribulus terrestris* with *Terminalia chebula* and *Tinospora cordifolia* showed a preventive effect against renal calculi formation and validate its ethnomedicinal use in urinary disorders. It further supports its therapeutic potential for the treatment of urinary calculi.