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(57) Abstract :

The present invention relates to an herbal composition derived from Lactuca sativa Linn exhibiting significant antiurolithiatic activity. The aqueous and chloroform extracts, along with freshly prepared juice of Lactuca sativa Linn leaves, were subjected to phytochemical screening, confirming the presence of flavonoids, saponins, phenolic compounds, proteins, and amino acids. The composition demonstrated the ability to inhibit calcium oxalate crystal nucleation, aggregation, and growth under physiological pH conditions. In-vitro and in-vivo evaluations revealed a marked reduction in calcium oxalate crystal size from 10.16 µm to 7.5–8.2 µm, with increased soluble calcium and oxalate ion concentrations. Among the extracts, the freshly prepared juice exhibited the highest activity, comparable to the standard Cystone formulation. The invention provides a safe, natural, and effective herbal formulation with proven litholytic potential for managing urolithiasis

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