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## IN-VITRO CYTOTOXIC STUDY ON THE ROOT EXTRACT OF APAMA SILIQUOSA LAMK

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### Abstract

Background: The demand for herbal medicines in many pharmaceutical sector is growing at a drastic rate due to their improved pharmacological actions, minimal side effects and cost effectiveness. The ever increasing cost of chemotherapy ruined the economic stability of many families. This led to the discovery of herbal medicines for cancer treatment. Tribes of western ghats have been using the roots of Apamasiliquosa for cytotoxic activity. Objective: To carry out the in-vitro cytotoxic study on the root extract of Apamasiliquosalamk by Brine shrimp lethality assay and by cell line study (MTT Assay). Materials & methods: Methanolic and aqueous extract of the roots of Apamasiliquosa were prepared by Soxhlet apparatus. These extracts were then used to prepare different concentrations and these different dilutions of extract was used to carry out brine shrimp lethality assay & the LC50 value was determined. Cell line study by MTT assay using cancerous cell line (MCF7 cells-human breast adenocarcinoma cells) & LC50 value was determined. Conclusion: LC50 value for aqueous and methanolic extract was found to be 102.32µg/ml & 91.20µg/ml respectively by brine shrimp lethality assay and the same by MTT assay was found to be 117.527µg/ml & 87.4056µg/ml respectively for breast cancer cell line (MCF7 cells). These led to the conclusion that both extracts showed excellent toxicity to the naupli and mild toxicity to cell lines.

**Key words:** Apamasiliquosa, soxhlet, brine shrimp lethality assay, MTT assay

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## COMPARATIVE EVALUATION OF ANTI-INFLAMMATORY ACTIVITY OF VATSANABHA PURIFIED BY DIFFERENT METHODS

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### Abstract

Objective of the study includes to collect and identify root tubers of *Aconitum ferox* (vatsanabha), To purify root tubers of *Aconitum ferox*, To prepare the alcoholic extract of purified Vatsanabha, To perform the phytochemical analysis of the extract, To evaluate the anti-inflammatory activity of ethanolic extract of Vatsanabha by various methods. Experimental methods are Purification of the crude drug By using cow's urine, By using cow's milk. Preparation of plant extract by coarsely powdered drug was extracted by means of ethanol using soxhlet apparatus. Determination of anti-inflammatory activity by Albumin Denaturation Method, HRBC Stabilization Method. Both the extracts purified by two different methods are found to have good anti-inflammatory activity in varying degree and show itself as good anti-inflammatory drug sources. From the studies, we can conclude that the Vatsanabha extract purified by cow's urine shows higher anti-inflammatory activity than the drug purified by cow's milk.

**Key words:** Vatsanabha, Anti-inflammatory, Cow's urine, Cow's milk, *Aconitum ferox*

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