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EVALUATION OF *IN-VITRO* ANTI-BACTERIAL AND CYTOTOXIC ACTIVITY OF *LEEA MACROPHYLLA*

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ABSTRACT: Studies have confirmed the medicinal potential of the *Leea macrophylla* mentioned in traditional medicine. While the effects of the *Leea macrophylla* extract on some bacteria and Brine shrimp lethality using their different concentrations has not been previously explored. The present study shows that the standardized aqueous and ethanolic extract of *Leea macrophylla* exhibited antibacterial and cytotoxic activity. The findings of the present work provide promise for the development of new molecules of treat microbial infections and cancer.

INTRODUCTION: *Leea macrophylla* (Roxb.) (Family: Leeaceae) is a herb or herbaceous shrub with a very big size leaf like an elephant-ear. The plant parts of *Leea macrophylla* are used by tribal people in the cold, cough, headache, tetanus, etc. ¹. ² It also has ethnobotanical uses in goiter, gastric tumor, lipoma body pain and rheumatic pain ²⁻⁵. Although *Leea macrophylla*. *Leea macrophylla* has various ethnopharmacological uses; the plant have not been investigated for antimicrobial and cytotoxic activity against prominent gram-positive and gram-negative human pathogenic bacterial strains. Besides, cytotoxic activity screening of the extracts was also carried out with view to assess the presence of antitumor activity of different extracts.

In-vitro lethality test has been successfully used as a preliminary study of cytotoxic and antitumor agents.

MATERIALS AND METHODS:

Preparation of Extracts: The plant species *Leea macrophylla* [Roxb.ex Hornem] belonging to Family: Leeaceae was collected from Kalgaoon village Taluka. Patan, District- Satara and authenticated at Botanical department of Yashwantrao Chavan College of Science, Karad. The plant was dried under sunlight and fine powder of the plant was prepared by using a hand grinder.

Preparation of *Leea macrophylla* Aqueous Extract (LMAE): powder was mixed with 30 ml distilled water boiled for 30 min in round bottom flask attach with a reflux condenser. The material was filtered Whatman filter paper no 40, and filtrate was collected.

Preparation of *Leea macrophylla* Ethanolic Extract (LMEE): powder was mixed with 30 ml

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