

Antibacterial property of plant extracts against few bacteria

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SUMMARY

An investigation was carried out to study the effect of aqueous and ethanolic root extracts of *Anacyclus pyrethrum* and *Clitoria ternatea* on *Bacillus cereus*, *Escherichia coli*, *Klebsiella pneumoniae*, *Pseudomonas fluorescens* and *Staphylococcus faecalis*. The ethanolic root extract of study plants exhibited Higher Relative Magnitude of inhibition against *Klebsiella pneumoniae*. In general all the tested bacteria were inhibited by both the root extracts. Regarding the concentration 100 µl/ml was more inhibitory than any other concentration.

Key Words : Plant extract, Relative magnitude of inhibition, Antibacterial activity

How to cite this article : Menaga, S. and Kalaichelvi, K. (2012). Antibacterial property of plant extracts against few bacteria. *Internat. J. Plant Sci.*, 7 (1) : 54-57.

Article chronicle : Received : 01.08.2011; Sent for revision : 11.08.2011; Accepted : 06.11.2011

In recent times, a renewed interest in the screening of medicinal plants for antimicrobial activity has been noticed because India is a hot spot of plant diversity and its vast plant resources are still fully untapped for their antipathogen activity. India is a leading third world country practicing the ancient herbal medicine authoritatively traditional wisdom in health is always realized with medicinal plants in our country. Now a days increasing recognition on raising importance of herbal remedies in western countries is observed in modern medicine too. Increase in demand for nutraceuticals is felt seriously in developed countries. India is exporting the medicinal and aromatic plants worth about Rs. 2000 million annually.

In this regard India has a unique position in the world, where a number of recognized indigenous systems of medicine viz., Ayurveda, Siddha, Unani, Homeopathy, Yoga and Naturopathy are being utilized for the health care of people.

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The demand for plant based medicines, health products, pharmaceuticals, food supplement, cosmetics etc are increasing in both developing and developed countries, due to the growing recognition that the natural products are non-toxic, have less side effects and easily available at affordable prices (Ncube *et al.*, 2008).

According to world health organization, medicinal plants are the best source to obtain a variety of newer herbal drugs. About 80 per cent of individuals from developed countries use traditional medicine, which has compounds derived from medicinal plants. Therefore, such plants should be investigated to better understand their properties, safety and efficacy. The world is now looking towards India for new drugs to manage various challenging diseases because of its rich biodiversity of medicinal plants. This worldwide interest in medicinal plants and the development of microbial resistance to the available antibiotics has led the authors to investigate the medicinal value of few medicinal plants.

MATERIALS AND METHODS

Plant materials were collected from Revenue Village of Thindal, Erode District, and confirmed with authentic herbarium specimens available in the Botany Department, Vellalar College for Women, Thindal, Erode.

Fresh leaves were collected and shade dried under room