

PRELIMINARY PHYTOCHEMICAL ANALYSIS AND ANTIMICROBIAL ACTIVITY OF AEGLEMARMELOS EXTRACT AGAINST PATHOGENS

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ABSTRACT

World is endowed with a rich wealth of medicinal plants. Man cannot survive on this earth for long life without the plant kingdom because the plant products and their active constituents played an important role. Herbs have always been the principal form of Medicine in India and presently they are becoming popular throughout the world. Plants continue to be a major source of commercially consumed drugs. The trend of using natural products has increased in recent years and the active plant extracts are frequently screened for new drug discoveries. *Aeglemarmelos*, corr.(FaM. Rutaceae) is commonly known as Bael in Bengal and Vilvam in tamil is distributed throughout India in dry forests, and also cultivated. *Aeglemarmelos*, corr.(FaM. Rutaceae) extract is used as a natural medicine. It is a cheaper and safe alternative source of drugs. Antibacterial activity of *Aeglemarmelos* leaves, fruits, bark and root extracts was determined using agar well diffusion method. It had significant antibacterial potency against the tested pathogens. In the present study the plant active components of *Aeglemarmelos* leaves, fruits, bark and root were extracted using Five different extraction solvents namely ethanol, ethyl acetate, chloroform, formaldehyde and distilled water. The phytochemical compounds such as reducing sugar, Tannins, Phlobatanins, terpenoidssaponins, alkaloids, flavonoids and poly phenols were revealed. Leaves, fruits, bark and root powder extract of *Aeglemarmelos* was studied by using five different solvents against the tested pathogens such as *Staphylococcus aureus*, *Escherichia coli*, *Bacillus subtilis*, *Pseudomonas aeruginosa* and *Candida albicans*. The formaldehyde extract of leaves fruits, bark and root (100%) was found to be most effective against *Bacillus subtilis* (28 mm), *Staphylococcus aureus* (36 mm), *Escherichia coli* (24mm), *Pseudomonas aeruginosa* (27mm), and *Candida albicans* (29 mm). All these preliminary reports warrant an in depth analysis of the usefulness of *Aeglemarmelos* as miracle drug against various ailments.

KEYWORDS: *Aeglemarmelos*, Phytochemical Screening, Anti Microbial Activity, Cotton Fabric & Pad Dry Cure Method

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