

OP-10

Antibacterial activity of Pachchaiennai against selected bacterial pathogens

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Pachchaiennai is one of the oils used to treat infected wounds at Siddha Medicine Hospitals of Northern Province of Sri Lanka. This oil consists of *Datura metal* leaf (Umaththai in Tamil), leaf of *Erythrina variegata* (Mulmurunga), coconut oil and CuSO₄ (Thurusu). In Siddha Medicine, minerals, metals and herbs are used to prepare different forms of Siddha drugs for treating various diseases. Thurusu is one of the ubarasum (found in rocks), Juice of *Erythrina variegata* and *Datura metal* leaves belong to the Family of *Leguminosae* and *Solanaceae*, respectively. This oil is commonly used to treat diabetic wounds as well as chronic wounds. Antibacterial activity of Pachchaiennai has not been tested previously.

The aim of the current study was to evaluate the antibacterial activity of *Pachchaiennai* against different bacteria including *Staphylococcus aureus* (ATCC 25923), *Pseudomonas aeruginosa* (ATCC 27853), *Escherichia coli* (ATCC 25922) and *Enterococcus faecalis* (ATCC 29212). The antibacterial activity was evaluated using the standard cut well diffusion method with Nutrient Agar (NA) medium with a control. The diameter of the zone of inhibition (ZOI) was measured after incubation. Replicates were made for the entire procedure.

Pachchaiennai showed antibacterial activity against all tested bacteria (ZOI ranging from 11 ± 0.675 to 18.4 ± 0.321mm). Degree of growth inhibition varied among bacterial species tested. Pachchaiennai had antibacterial activity against *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Escherichia coli* and *Enterococcus faecalis* standard strains suggesting the antibacterial potential of the Siddha medication.

Key words: Antibacterial activity, Pachchaiennai, selected bacterial pathogens

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