

OP-8

Antibacterial activity of Poonduthen against some human bacterial pathogens

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Poonduthen is one of the Siddha drugs used in treatment of infection as an internal medicine. It possesses the juice of *Allium sativum* and honey. *A. sativum* belongs to the family *Amaryllidaceae*. In Siddha medicine, *A. sativum* is used as one of the ingredients of the Siddha drugs used in the treatment of urinary tract infection, infections in the gastrointestinal tract, and skin diseases. The antibacterial activity of Poonduthen has not been reported previously although the antimicrobial activity of *A. sativum* extract has been studied extensively,

The aim of the study was to evaluate the antibacterial activity of Poonduthen against *Staphylococcus aureus* (ATCC 25923), *Pseudomonas aeruginosa* (ATCC 27853), *Escherichia coli* (ATCC 25922) and *Enterococcus faecalis* (ATCC 29212). Poonduthen was prepared by mixing of equal amount of garlic juice and honey. Garlic and honey were purchased from Siddha Medical shop in Jaffna. The antibacterial activity was evaluated by using the standard cut well diffusion method with nutrient agar (NA) as the medium. The wells with 9mm diameter were bored into the NA using sterile core borer and completed filled with poonduthen. The diameter of the zone of inhibition (ZOI) was measured after 24 hours incubation at 37 °C. Poonduthen showed inhibitory activity against all tested bacteria with ZOI ranged between 10.7 ± 0.34 mm and 18.5 ± 0.77 mm.

Screening for antibacterial activity of Poonduthen has demonstrated activity against four common human pathogens (*S. aureus*, *P. aeruginosa*, *E. coli* and *E. faecalis*). Further studies to determine the full spectrum of activity and determine the minimum inhibitory concentration of Poonduthen against these bacteria are planned.

Keywords: Antibacterial activity, human bacterial pathogens, Poonduthen.