

## Preliminary *in vitro* study of antimicrobial activity of traditional mouthwash preparations

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### Introduction

The frequency of recurring aphthous stomatitis varies from less than four episodes per year (85% of all cases) to more than one episode per month (10% of all cases). The objective of this study was to evaluate the in-vitro antimicrobial activity (AMA) of traditional mouthwashes *Padikkaraneer* (PN), *Pancha thuarpi kasayam* (PT) and *Masikaai neer* (MN) against some oral ulcer causing pathogens, *Escherichia coli*, *Pseudomonas*, *Staphylococcus aureus* and *Candida albicans*.

### Methods

The raw materials were taken as per the specific formula and pounded into a coarse powder to which was added 8 times the volume of water. The pounded ingredients were allowed to completely soak in water for one to two hours. The mixture was then boiled in a wide mouthed container over a mild fire with continuous stirring using a ladle. The resulting kasayam was boiled until it reduced to one fourth of its initial volume. It was then filtered. Fifteen isolates of each pathogen were obtained from the culture collection in the Division of Microbiology, Faculty of Dental Sciences, University of Peradeniya. Screening of AMA of three selected mouthwash samples were carried out using the agar well diffusion method.

### Results

Zone of inhibitions (ZOI) of MN against *C. albicans*, *S. aureus*, *Pseudomonas* sp. and *E. coli* were 5.3mm, 6mm, 12.7mm and 8.3mm respectively. PT was less effective with ZOI of 4.3mm, 5.3mm and 4.7mm against *E. coli*, *Pseudomonas* sp. and *S. aureus* respectively. None of the organisms were inhibited by PN.

### Conclusion


MN and PT demonstrated antimicrobial activity against the tested organisms. Further study to determine the active agents in these herbal preparations are indicated

**Keywords:** *Padikkaraneer*, *Panchathuarpi kasayam*, *Masikaai neer*, oral ulcers.

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