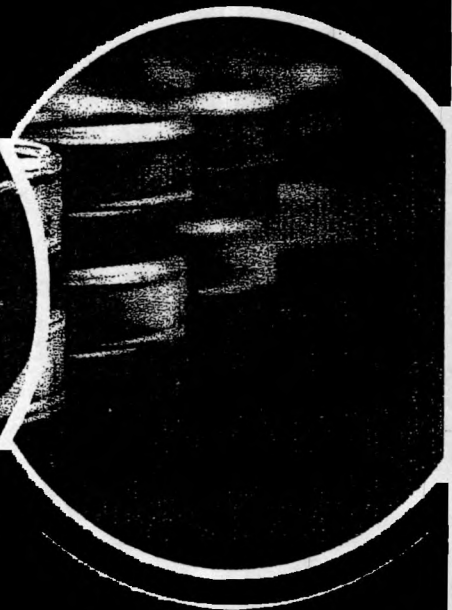
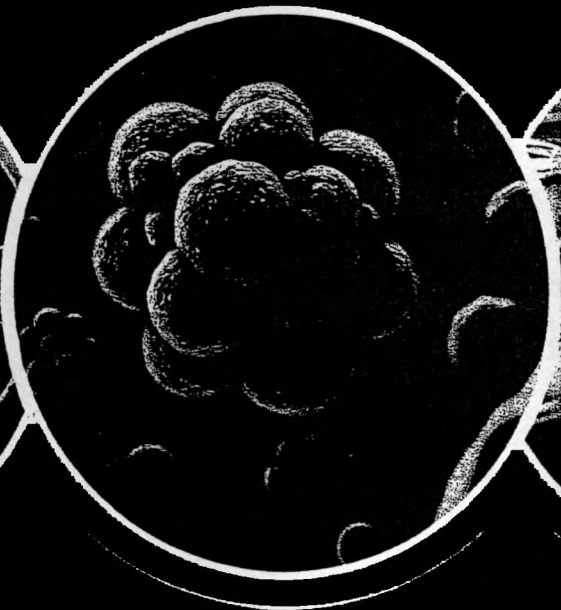
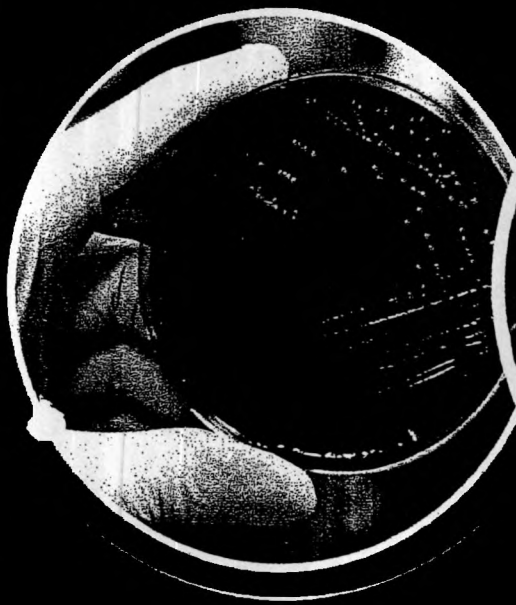


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**Antimicrobial activity of selected herbal and chemical disinfectants against
Acinetobacter species causing ventilator associated pneumonia**

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Acinetobacter species are emerging as important pathogens of ventilator associated pneumonia (VAP) and are often associated with increased morbidity and mortality. This study was done to determine the antimicrobial activity of selected herbals and chemical disinfectant solutions against clinical isolates of *Acinetobacter* species.

Aqueous extracts of dried fruit of *Garcinia zeylanica* (Elagoraka), dried stem bark of *Cinnamomum verum* (Cinnamon), dried flowers of *Syzygium aromaticum* (Clove), dried stem bark of *Ficus benghalensis* (Nuga), dried stem bark of *Ficus racemosa* (Attikka), young bulbs of *Allium sativum* (Sudulunu), dried stem bark of *Garcinia zeylanica* (Elagoraka) and Tripala decoction (Aralu, Bulu and Nelli) was prepared following the traditional Ayurvedic practice. Fresh juice of young bulbs of *Allium sativum* was prepared by crushing. Commercial oral disinfectants 0.2% Chlorhexidine, 1% Betadine, 0.044% Sodium Fluoride and Listerine were purchased for testing. Nine clinical isolates of *Acinetobacter* species were tested in triplicates using the well diffusion method for antimicrobial activity. Minimum inhibitory concentration (MIC) of the aqueous extracts and chemical disinfectants were determined using the pour plate method.

The zones of inhibition were observed for the 9 clinical isolates of *Acinetobacter baumannii* by the well diffusion method included *Garcinia zeylanica* (15.1 mm), Tripala decoction (13.1 mm) and fresh juice of *Allium sativum* (34.55 mm). For the oral disinfectants tested, 0.2% Chlorhexidine and 1% Betadine gave inhibition zones of 19.17 mm and 13.53 mm, respectively. Aqueous extracts of other plant extracts and oral disinfectants 0.044% Sodium Fluoride and Listerine did not give a zone of inhibition. The MIC of *Acinetobacter* isolates included *Garcinia zeylanica* of 15.6 mg/mL, Tripala decoction of 31.5 mg/mL, *Allium sativum* of 19.53 mg/mL, 0.2% Chlorhexidine of 0.031 mg/mL and 1% Betadine of 5 mg/mL. Aqueous extract of *Garcinia zeylanica*, Tripala decoction and fresh juice of *Allium sativum* had antimicrobial activity against clinical *Acinetobacter* isolates. Further studies should be carried out to determine the cell cytotoxicity and *in vivo* activity of these extracts.

Key words: Antimicrobial activity, herbs, chemical disinfectants, *Acinetobacter* and VAP.