



Research article

Anticandidal activity of essential oils of *Myristica fragrans* and *Syzygium aromaticum*

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Abstract

M. fragrans is commonly known as nutmeg. *S. aromaticum* is called as clove. In Siddha medicine, these are used as one of the ingredients in medicines that are used to treat vaginal diseases. The aim of the study was to evaluate the anticandidal activity of oils of seed and leaf of *M. fragrans* and clove against *C. tropicalis* ATCC 13803, *C. krusei* ATCC 6258, *C. albicans* ATCC 90028, *C. glabrata* ATCC 90030, *C. parapsilosis* ATCC 22019, *C. albicans* 3 clinical isolates. Oils were distilled using the Clevenger apparatus. Anticandidal activity of oils was screened using disc diffusion method. Minimum Inhibitory Concentration (MIC) of the oils was determined in two different method of two fold micro-broth dilution. Minimum Bactericidal Concentration (MBC) was determined wells with no turbidity in the micro-broth MIC method (BHI) were sub cultured onto a blood agar plate. All three oils showed activity against all tested *Candida* sp ZOI from 8.3 ± 0.5 - 30.0 ± 0.0 mm. MIC of three oils are similar for all tested *Candida* sp in both methods. The extremely low MIC ($0.0045 \mu\text{g/mL}$) of the oil of *S. aromaticum* for all the tested *Candida* strains is note worthy. However, all the tested oils were active against *Candida* with MICs ranging from 0.0045 - $2.5 \mu\text{g/mL}$. MBC was the same or differed by only one dilution as the MIC for tested *Candida* sp. suggesting that the oils are fungicidal. Three oils have ability to inhibit *Candida* sp with low MIC.