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Anticandidal Potential of *Jasminum officinale*, *Leucas zeylanica*, *Cassia auriculata* and *Cinnamomum zeylanicum* Extracts against Selected *Candida* Strains

D.N. Wanigasekara [a*], S.S. Wickramasinghe [b], G.B. Wijayaratne [b], M.T. Napagoda[a]

[a]*Department of Biochemistry, Faculty of Medicine, University of Ruhuna, Galle, 80000, Sri Lanka*
[b]*Department of Microbiology, Faculty of Medicine, University of Ruhuna, Galle, 80000, Sri Lanka*

*Corresponding author: *dharaninirasha@gmail.com*

ABSTRACT

Emergence of resistance to antifungal drugs among *Candida* species is reported at alarmingly high rates. This limits severely the treatment options available for invasive and superficial candida infections. Despite many studies dedicated to develop novel treatment strategies, in depth exploration of antifungal medications used in indigenous medicinal practices would lead to a fruitful path rationalizing the pharmacological and phytochemical significance of them. Thus the current study was undertaken to investigate the anticandidal potential of four plant extracts commonly used in indigenous medicinal systems as antifungal remedies; *Jasminum officinale* flower, *Leucas zeylanica* whole plant, *Cassia alata* flower and *Cinnamomum zeylanicum* leaf methanol extracts against three *Candida* type cultures namely *Candida albicans* (ATCC 10232), *Candida krusei* (ATCC 200917) and *Candida parapsilosis* (ATCC 22019).The anticandidal activities of these plant extracts were evaluated by agar well-diffusion method. Standard fluconazole was used as the positive control and 80% dimethyl sulfoxide (DMSO), the solvent was used as the negative control. The obtained results indicated that all three *Candida* species were inhibited by *C. zeylanicum* leaf extract yielding mean inhibition zone diameters of 16.67±0.58 mm, 18.00±0.00 mm and 19.33±0.58 mm for *C. albicans*, *C. krusei* and *C. parapsilosis* respectively. No inhibition was reported for remaining extracts to all three *Candida* species. A mean inhibition zone diameter of 40.33±0.58 mm, 42.00±0.00 mm and 37.67±0.58 mm were obtained for standard fluconazole positive control accordingly. The growth of all three species was not affected by the negative control. The preliminary observations suggest that *C. zeylanicum* leaf extract has the potential to be further studied and to be developed into potential herbal medication for *Candida* infections.

Keywords: *antimicrobial, antifungal resistance, Candida, plant extracts*