

**PHYTOCHEMICAL SCREENING AND ANTIFUNGAL
ACTIVITIES OF *Pluchea indica* LEAVES EXTRACT**

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ABSTRACT

PHYTOCHEMICAL SCREENING AND ANTIFUNGAL ACTIVITIES OF *Pluchea indica* LEAVES EXTRACT

This study was conducted to determine phytochemical constituent present in *Pluchea indica*. The antifungal activities of distilled water and methanol extracts from *P. indica* leaves was also performed on selected pathogenic dermatophyte such as *Candida albicans*, *Trycophyton mentagrophytes* and *Malessezia spp.* From the phytochemical screening that was done, it showed the presence of glycoside, saponin and phenols in *P. indica* leaves crude extract. Different concentrations which were 50 $\mu\text{g}/\mu\text{L}$, 100 $\mu\text{g}/\mu\text{L}$, 200 $\mu\text{g}/\mu\text{L}$, 400 $\mu\text{g}/\mu\text{L}$ and 600 $\mu\text{g}/\mu\text{L}$ were prepared from these extracts to inhibit the growth of the dermatophytes. Both distilled water and methanol extract of leaves of *P. indica* showed antifungal activities towards the growth of *C. albicans*. For *T. mentagrophytes*, only distilled water has antifungal activities towards it and only methanol extract have antifungal activities toward *Malessezia spp.* Minimum inhibition concentration of distilled water and methanol crude extract in inhibiting the growth of *C. albicans* is 200 $\mu\text{g}/\mu\text{L}$ with the diameter of zone of inhibition of 3.2 mm and 50 $\mu\text{g}/\mu\text{L}$ with the diameter of zone of inhibition of 2.2 mm respectively. Minimum inhibition concentration of distilled water extract in inhibiting the growth of *T. mentagrophytes* is 50 $\mu\text{g}/\mu\text{L}$ with the diameter of zone of inhibition of 2.2 mm. Minimum inhibition concentration of methanol extract in inhibiting the growth of *Malessezia spp.* is 100 $\mu\text{g}/\mu\text{L}$ with the diameter of zone of inhibition of 8.4 mm. Zone of inhibition showed by *Malessezia spp* was the largest compared to *C. albicans* and *T. mentagrophytes*. *Malessezia spp* is the fungus that can cause dandruff, so leave of *P. indica* has the potential to be used as an agent to antidandruff in shampoo.