In vitro study of antifungal activity of Entada spiralis Ridl. crude extract against dermatophytes of superficial skin disease

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Abstract

The antifungal activity of crude extracts from the stem bark of Entada spiralis was evaluated in vitro against human dermatophytes by disc diffusion method. Three types of human dermatophytes, known as Trichophyton mentagrophytes, Microsporum gypseum, Trichophyton tonsurans and one non-dermatophyte Candida glabrata, were tested against petroleum ether, ethyl acetate and methanol crude extracts of the E. spiralis. Results revealed that all dermatophytes were susceptible towards all tested crude extracts, whereas, the non-dermatophyte showed resistance to all the extracts. M. gypseum was found to be most susceptible towards petroleum ether extract (400mg/ml), with a zone of inhibition of 16 mm. The ethyl acetate and methanol crude extracts (400mg/ml each) exhibited highest activity against T. tonsurans with inhibition zones of 12.7 mm and 11.5 mm, respectively. Nystatin was used as the standard antifungal drug in all experiments and served as the positive control. All these results suggested that the petroleum ether crude extract was the most active extract against all tested dermatophytes except for C. glabrata. Based on these current findings, it can be concluded that the stem bark extracts of E. spiralis have promising antifungal activities and can be used as a potent antifungal drug against certain dermatophytes.

References

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