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ABSTRACTS

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In vitro-Antifungal Potential of, *Pityranthe verrucosa, Pterospermum suberfolium*, and *Chloroxylon swietenia* Against Human Pathogenic Fungi

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This study was carried out to investigate the in vitro antifungal potential of leaves of three dry zone tree species found in Sri Lanka, *Pityranthe verrucosa, Pterospermum suberfolium* and *Chloroxylon swietenia*. The study aimed to assess the antifungal activity and to determine the zone of inhibition of crude extracts on *Aspergillus niger* (both human and plant pathogen) and human pathogenic fungus, *Candida albicans*. Plant materials were extracted using the sequential method of extraction using increasing order of polarity with n-hexane, dichloromethane, methanol, and water. The agar well diffusion method was used to evaluate the antifungal activity. The zones of inhibition against crude extracts were measured. Standard antibiotic drugs Nystatin and Itraconazole were used as the positive controllers for *C. albicans* and *A. niger*, respectively. 2% DMSO was used as the negative controller. The hexane extractions of all three plant species were active against *Candida albicans* and *Aspergillus niger*. The dichloromethane extractions of *C. swietenia* and *P. verrucosa* were active against *C. albicans*, and all the Dichloromethane crude extracts were active against *A.niger*. The methanol extract of *P. verrucosa* was active against both *C. albicans* and *A.niger*. The methanol extraction of *C. swietenia* also active against *A niger*. According to the results obtained, *P. verrucosa* has the highest antifungal activity against both *C. albicans* (zone of inhibition, Nystatin 17.67± 2.31 mm < 25.00 ± 3.61 mm Dikwenna) and *A. niger* (zone of inhibition 21.33 ± 4.16 mm). The results obtained suggest that the bioactive compounds in the leaves of these plants possess antifungal properties and may serve as a source of antifungal ingredients for the drug production for human diseases Candida infections and aspergillosis.

Keywords: *Pityranthe Verrucosa, Pterospermum Suberfolium, Chloroxylon Swietenia, In Virto Antifungal Activity, Human Pathogens*