

Anti-candidal activity of two plant extracts

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Candida species which cause human infections are resistant to some antifungal drugs used today. Therefore requirement of new anticandidal agents has increased. Medicinal plants that were used in traditional medicine were found to be multipurpose drugs. Hence study of anticandidal activity of the medicinal plants place an important role in discovering new anticandidal agents. *Flueggea leucopyrus* is commonly used for cancer treatment in traditional medical systems. *Osbekia octandra* is also important in traditional medical systems as its plant parts are used to treat various illnesses, one of which is diabetes. Therefore the aim of this study was to investigate the anticandidal activity of *Flueggea leucopyrus* and *Osbekia octandra* plants.

Ethanollic extracts were prepared by adding 5ml of ethanol for 1g of ground leaves of each plant separately. These extracts were used to investigate the anticandidal activity. The agar well diffusion assay was performed on isolates of *Candida albicans*, *Candida tropicalis* (ATCC13803), *Candida glabarata* (ATCC90030), *Candida parapsilosis* (ATCC22019) and *Candida krusei* (ATCC6258).

Minimum inhibitory concentration (MIC) values of crude extracts that were made using the rotary evaporator were determined by agar dilution assay for the above *Candida* species.

Results of the agar well diffusion assay of *Flueggea leucopyrus* were 3.33mm, 4.34mm, 1.67mm, 4mm, 2.34mm and results of *Osbekia octandra* were 8.34mm, 4.33mm, 3.34mm, 8.67mm, 5mm for *Candida albicans*, *Candida parapsilosis* (ATCC22019), *Candida tropicalis* (ATCC13803), *Candida glabarata* (ATCC90030) and *Candida krusei* (ATCC6258) consecutively.

MICs of *Flueggea leucopyrus* were 32mg/l for *Candida parapsilosis* (ATCC22019), *Candida tropicalis* (ATCC13803), *Candida glabarata* (ATCC90030), *Candida krusei* (ATCC6258) and the clinical isolates of *Candida albicans* showed MIC value of 64mg/l.

MICs of *Osbekia octandra* extracts against *Candida parapsilosis* (ATCC22019), *Candida glabarata* (ATCC90030), *Candida krusei* (ATCC6258) and the clinical isolates of *Candida albicans* found to be 32mg/l. *Candida tropicalis* (ATCC13803) showed a MIC value of 64mg/l.

The result confirmed that the leaves of *Flueggea leucopyrus* and *Osbekia octandra* contain anticandidal activity.

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