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Antifungal activity of methanolic extracts of *Abelmoschus esculentus* pods and *Salvia hispanica L.* seeds against *Candida albicans*

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Introduction: Candidiasis, which is caused by *Candida albicans*, is becoming a global health concern due to the emergence of resistant strains to antifungal drugs. It led to the need for alternative treatment approaches. Nowadays, herbal plant extracts that contain various bioactive constituents serve as promising antifungal agents. *Abelmoschus esculentus* (okra) pods and *Salvia hispanica L.* (Chia) seeds possess various biological properties. Despite these activities, the antifungal activity of methanolic extracts of *A. esculentus* pods and *S. hispanica L.* seeds against *C. albicans* has not been investigated so far.

Objectives: This study aimed to determine the minimum inhibitory concentrations (MIC) of methanolic extracts of pods of *A. esculentus* and seeds of *S. hispanica L.* to assess their antifungal activity against standard *C. albicans* ATCC 10231^T.

Methodology: Methanolic extracts of *A. esculentus* pods and *S. hispanica L.* seeds were prepared by maceration and tested for the antifungal activity against the standard strain of *C. albicans* ATCC 10231^T using Sabouraud Dextrose Broth microdilution assay. Serial two-fold dilutions of *A. esculentus* (40 mg/mL–0.019 mg/mL) and *S. hispanica L* (2.5 mg/mL–1.22 µg/mL) extracts were tested in duplicate to determine the MIC, where miconazole was used as the positive control.

Results: Both methanolic plant extracts exhibited detectable antifungal activity against *C. albicans*, with the MIC values of 312.5 µg/mL for *S. hispanica L.* seed extract and 2.5 mg/mL for *A. esculentus* pod extract, which were higher than that of the standard drug miconazole with an MIC of 0.5 µg/mL.

Conclusion/s: This study provides the first report on the MIC of methanolic extracts of *A. esculentus* pods and *S. hispanica L.* seeds against *C. albicans*. Although their antifungal activity is lower than that of standard antifungal drug, the findings offer preliminary evidence supporting the potential role of these plant extracts in antifungal phytotherapy research.

Keywords: *Abelmoschus esculentus*, Antifungal activity, *Candida albicans*, Minimum Inhibitory Concentration, *Salvia hispanica L.*