Evaluation of the hydroalcoholic chamomile extract antifungal activity on Candida albicans-Invitro Study

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Abstract

Background and Aim: Fungal Oral diseases affect the majority of the population and can affect a person’s overall health. It is reported that chamomile extract contain phytomedicine capable of suppressing oral pathogens associated with fungal diseases. The aim of this study is the assessment of chamomile extract antifungal activity on Candida albicans.

Materials and Methods: The reference strain of C. A ATCC 10231 used for this study. The 70% ethanol extract of chamomile was and then made in 2-512 mg/ml concentrations. The antifungal activity of the extract was examined by determining Minimum Inhibitory Concentration (MIC) and Minimum Fungicidal Concentration (MFC) using the macro broth dilution technique and agar well diffusion method.

Result: Results showed that the ethanol extract of Chamomile had inhibitory and fungicidal effect only in concentration of 512 mg/ml.

Conclusion: Comparison of the results of ethanol control group and test group showed that inhibitory and fungicidal effect of hydroalcoholic extract of chamomile is due to 70% Ethanol but not the chamomile and Ethanol extracts of chamomile has no antifungal effect on Candida albicans.

Keywords: MIC, MFC, Chamomile extract, Candida Albicans, Minimum Inhibitory Concentration, Minimum fungicidal Concentration

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