

Antifungal effect of Sodium Dodecil Sulfate and Nano particle ZnO on growth inhibition of standard strain of *Candida albicans*

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Abstract

Background and Objective: The *Candida albicans* is an opportunistic fungi that can be pathogenic in patients suffering from diabetes and AIDS. This organism can cause various infections such as superficial of the skin and mucosa to deep tissue infections. In this study the antifungal effects of ZnO and SDS on *Candida albicans* in comparison with Fluconazole were investigated.

Materials and Methods: This was an experimental study which evaluated the antifungal effects of biocide SDS and ZnO on *Candida albicans* by microbroth dilution assay in broth and agar medium. Minimum Inhibitory Concentration (MIC) was determined for each inhibitor during colony count in comparison with control.

Results: MIC of ZnO was 1.013-296 µg/ml and for SDS and Fluconazole were 0.001-0.56 and 0.062-128 µg/ml respectively.

Conclusion: This study demonstrated antifungal activity of ZnO can be a candidates for the elimination of candida in medicine particular in medical instruments.

Keywords: *Candida Albicans*, Nanoparticle ZnO, Sodium dodecile sulfate, Minimum inhibitory concentration

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