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The antifungal effects of alcoholic extract of *Ganoderma lucidum* on candida isolatesJavaher Chabavizadeh¹, Mojgan Sadeghi¹, Mostafa Chadeganipour¹, Mohammad Ghahri², Parvin Dehghan¹ and Behzad Mahaki¹¹Isfahan University of Medical Sciences, Iran²Imam Hossain School of Basic Sciences, Iran

Introduction: Candidiasis is a common fungal infection caused by various species of the *Candida*. *Candida albicans* is the most important etiologic agent of candidiasis which includes about 60%-75% of this disease. The extent of fungal opportunistic infections in susceptible individuals on one hand and increasing drug resistance on the other hand, leads to the importance of antifungal effects of traditional plant products. One of the edible mushrooms which is named as the best medicinal fungi, having many health benefits and various therapeutic properties is named *Ganoderma lucidum*. In this study, the therapeutic importance of this mushroom, as well as previous studies for antifungal and antibacterial properties of this fungus, was designed.

Materials & Methods: This study was carried out on patients with candidemia admitted to some specialized hospitals in Tehran. To identify the *C.albicans* specie, out of 4850 blood cultures, 43 cases were identified as candidiasis, by using phenotypic and molecular methods, *in vitro*. Then microdilution methods were used to prepare different concentrations of *G. lucidum* ethanol extract to determined MIC (minimum inhibitory concentration) and MFC (minimum fungicidal concentration) for each *C.albicans* isolated species as well.

Findings & Conclusion: The result showed that out of 43 candidiasis, the frequency of candida isolates were as follows: *C. albicans* 22 (52%), *C. parapsilosis* 10 (23%), *C. glabrata* 8 (18%) and *C. tropicalis* 3 (7%) respectively. By microdilution method the concentration of 5.2 mg/ml inhibited most species. The MIC was 3.1 mg/ml and the maximum concentration was 10.4 mg/ml. The MFC was 5.2 mg/ml and the maximum concentration was 20.8 mg/ml. According to the results of this study, the *G. lucidum* ethanol extract can be used as an antifungal product in the future studies to lead for better control and treatment of candidiasis.

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