

Antifungal Effect of *Bunium persicum* Essential Oil on Fluconazol Resistance Clinical Isolate of *Candida glabrata*

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Background & Objectives: *Candida* species are associated with mucocutaneous infections and currently are considered as the fourth most common causes of bloodstream infections. During the past several years resistance to traditional triazole anti fungal drugs, such as Itraconazol and Fluconazole among clinical isolates of *Candida* has increased dramatically, justifying demands for novel antifungals. Nowadays, human need new antimicrobial drugs with minimum side effect, so researchers attention to the traditional compounds and herbal medicines. In the present study, antifungal effect of *Bunium persicum* essential oil, was evaluated against clinical isolate of *Candida glabrata*.

Methods: The minimum inhibitory concentration (MIC) of *Bunium persicum* essential oil against resistance clinical isolate of *Candida glabrata* that detected from bloodstream infection. Was evaluated by the microdilution methods as recommended by the clinical and laboratory standards institute (CLSI).

Results: In this study, results showed that essential oil of *Bunium persicum* has antifungal effect on clinical isolate of Fluconazole resistance *Candida glabrata*. MIC of *Bunium persicum* was 1.5 mg/ml and minimal fungicide concentration (MFC) was 3 mg/ml.

Conclusion: Based on result we conclude that the *Bunium persicum* essential oil showed suitable antifungal effect against clinical fluconazol resistance isolate of *Candida glabrata*. These result show that essential oil of *Bunium persicum* is a promising candidate for treating fluconazole resistance candidiasis in involved patients. Further evaluation of clinical effectiveness of this compound is recommended.

Keywords: Antifungal Activity; *Bunium persicum*; *Candida glabrata*