

Comparison of the Effect of Lavender and Clotrimazole on the Growth of The Standard Strains of *Candida albicans*, an In Vitro Study

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Background & Objectives: Despite progresses of medical science and coming into existence new Methods of treatment, incidence and severity of fungal infections have increased in recent years surprisingly. As, 75% of women at least once during their lives are affected to vulvovaginitis candidiasis. Therefore, appropriate and safe treatment of this disease is great need. With attention to use of complementary and alternative medicine such as using herbal medicine that are the largest recent trends in medical care and also the long history of herbal therapy in the treatment of vaginal discharge, so researchers designed to compare in vitro effects of Lavender and Clotrimazole on the growth of the standard strains of *Candida albicans*.

Methods: In this semi-experimental study, the fungus cell count was done by thoma hemocytometer slide. After preparing the dilution 6×10^6 of standard *Candida albicans* (S.C.a-PTCC-2657) in the sabouraud liquid medium and after adding lavender essential oil, brew and clotrimazole in different dilutions of ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$) (in 4 stages), fungus cell was counted. After getting the information, the data were analyzed through descriptive-analytical statistic by SPSS software and test GLM univariate were used. Result tests were compared.

Results: The number of fungi cells in the brew (14×10^6) and the essential lavender oil (17×10^6) decreased significantly in comparison to clotrimazole (93×10^6) and fungus control (188×10^6) ($p=0.001$). Also, the fungus cell count in dilutions of $\frac{1}{2}$ the drugs, in the brew and in dilutions of $\frac{1}{4}$ and $\frac{1}{8}$, in essential oil were less in other proportions the highest antifungal efficacies of the drugs were observed in higher dilution ($p=0.005$). Clotrimazole had the least antifungal effect.

Conclusion: Lavender essential oil and brew had more antifungal efficacy on the standard *Candida albicans* in comparison with clotrimazole.

Keywords: Lavender; Clotrimazole; *Candida albicans*; Microdilution Methods