

## SYNERGISM BETWEEN ESSENTIAL OILS AND AZOLE ANTIFUNGALS FORWARD DIFFERENT SPECIES of *Candida sp.*

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The use of medicinal plants is becoming increasingly widespread in phytochemical-herbal market, increasing interest in knowing more deeply the biological activities of its active ingredients. Among the most studied plant and used popularly, stand out from the *Eucalyptus globulus* and *Syzygium aromaticum*. Their uses are related to anti-inflammatory activities, antibacterial, antifungal and antiseptic. Such forms of use are related to the resistance pattern of the different groups of microorganisms to the usual antimicrobial agents, an example is yeast of the genus *Candida sp.* Vulvovaginal candidiasis is one of the diseases related to fungi that presents the frequent resistance to standard drug treatment. Based on the above the present study aimed to quantitatively determine the enhancement or inhibition of medicinal power of the antifungal fluconazole and itraconazole, relating them to the antifungal power of essential oils of *Eucalyptus globulus* and *Syzygium aromaticum*, against strains of *Candida albicans*, *Candida glabrata*, *Candida krusei* and *Candida tropicalis* using for testing the Reference Method for Broth Dilution Tests for Determination of Yeast Sensitivity to Antifungal Therapy (NCCLS, 2002), in which they tested the MIC of drugs along with three oil concentrations from *E. globulus* and *S. aromaticum*, these being 50,000 ug / ml, 100,000 ug / mL and 200,000 ug / mL. Assays were performed using RPMI 1640 medium to make suspensions of microorganisms, being incubated in a mycological oven at 35 ° C for 48h. Readings were taken at UV-VIS spectrophotometer using 560nm. The results demonstrated that both compounds showed a synergistic effect with the oils tested, reaching up to 86% potentiation of the action of drugs, the drug being tested fluconazole with improved performance, however, itraconazole drug also demonstrated potencialization by oil synergism, but with less intensity. The essential oil of *E. globulus* proved to be more efficient regarding the enhancement of capacity of the medications than the *S. aromaticum* oil. However it can be stated that there were positive results regarding the use of drugs concomitantly with essential oils, making it a possible alternative in the treatment of fungal resistance.

**Key words:** Synergism, essential oil, *Eucalyptus globulus*, *Syzygium aromaticum*.