

Título: ANTIFUNGAL ACTIVITY OF LAVENDER (*Lavandula officinalis*) ESSENTIAL OIL AGAINST YEASTS ISOLATED FROM VAGINAL DISCHARGE

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Resumo:

Yeasts are unicellular fungi that reproduce primarily by budding and/or fission with generally spherical cells, oval or cylindrical. The uncontrolled growth of yeasts on the women genital tract mucosa can cause vulvovaginitis, usually caused by species of genus *Candida*, *Rhodotorula* and *Trichosporon*. The use of essential oil of lavender (*Lavandula officinalis*) as an analgesic, anticonvulsant, anti-inflammatory and sedative can be proven in many studies. However, its use for antifungal activity against medical importance yeasts is still poorly related. Thus, the present study proposed to evaluate the antifungal activity *in vitro* of lavender essential oil against yeasts isolated from vaginal discharge. Initially, twelve yeasts strains preserved under mineral oil were chosen, from the URM (University of Recife Mycology Culture Collection), belonging to the genus *Candida*, *Rhodotorula*, *Trichosporon* and *Kloeckera*. The lavender essential oil was obtained from commercial brand (Bioessência®). The antifungal activity was verified *in vitro* by paper disc diffusion method. The test was standardized by turbidity equivalent to 0.5 of McFarland's Scale in physiological solution, corresponding to a concentration of approximately 10⁷ CFU/mL for yeasts. On inoculated Sabouraud's Agar, sterile paper discs (6 mm) were placed and soaked with 10 µL of oil. After disks placement, plates were incubated for 24h and 48h at 28°C and 37°C. At the same time the positive control was carried out with discs containing the standard antifungal agent chosen, Nystatin (100,000 IU/g) and the negative control was carried out with disks containing Dimethylsulfoxide (DMSO) at 95%. Equal halos or greater than 8mm were considered significant antifungal activity. It was observed that the lavender essential oil had significant antifungal activity only on the strains URM 4978 *Candida shehatae*, URM 5189 *Candida tropicalis*, URM 4990 *Candida albicans*, URM 741 *Candida brumptii* e URM 5974 *Candida albicans* a 28°C e URM 4978 *Candida shehatae*, URM 739 *Candida catenulata*, URM 5189 *Candida tropicalis*, URM 4990 *Candida albicans*, URM 741 *Candida brumptii* e URM 4975 *Candida guilliermondii* at 37°C. In other samples the oil inhibited 100% growth. The antifungal activity observed in the essential oil of lavender encourages new researches on medicinal plants in order to establish the chemical constituents responsible for its antimicrobial effect.

Palavras-chave: antimicrobial, phytotherapy, yeasts

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