

TITLE : ANTIFUNGAL ACTIVITY OF ESSENTIAL OIL OF *ELIONURUS MUTICUS* (BRAZILIAN LEMONGRASS) AGAINST *CANDIDA* SPP.

AUTHORS: PUPPIN, D.G.P.B.; OLIVEIRA, T.R.; FEIRIA, S.N.B; BONI, G.C; BUSO RAMOS, M.M.; BARBOSA, J.P.; TEIXEIRA, A.L.; HÖFLING, J.F.

INSTITUTION: FACULDADE DE ODONTOLOGIA DE PIRACICABA, PIRACICABA, SP(AV. LIMEIRA, 901 - AREIÃO, CEP 13414-018, PIRACICABA - SP, BRAZIL)

ABSTRACT:

*Candida albicans*, along with some other non-*albicans* species, is a group of yeasts, which may cause serious infections as an opportunistic organism. Extensive efforts have been made to discover alternative antifungal agents, since the frequency of these fungal infections has increased drastically world wide. Plants belonging to the genus *Elionurus* are commonly used in the treatment of various infections, including those caused by fungi. According to literature it can be seen that the genus *Elionurus* is promising in new therapeutic alternatives. In this context, the objective of this work was to evaluate the antifungal activity of *Elionurus muticus* essential oil in standard *Candida* strains. The essential oil of *Elionurus muticus* was commercially acquired and 11 standard *Candida* strains were used for the tests. Minimal Inhibitory Concentration (MIC) and Minimum Fungicidal Concentration (MFC) were determined using known protocols employing the broth microdilution technique described by the CLSI (Clinical and Laboratory Standards Institute) for yeast (M27-A2). The tests were done in three independent experiments. The essential oil of *E. muticus* was effective against the tested strains, showing MICs of 0.0312 to 0.250 mg / mL, being the best antifungal effect found for *C. krusei*, *C. utilis* and *C. rugosa*. CFMs ranged from 0.0625 to 0.500 mg / ml exhibiting, in most of the tested strains, a fungistatic profile in relation to MICs. Thus, the essential oil of *E. muticus* is biologically active against *Candida* strains tested at low concentrations, opening up perspectives for a wider evaluation

Keywords: Oil essential, *Candida*, Antifungal