

Title: *Casearia sylvestris* Swartz: EVALUATION *in vitro* of the POTENTIAL ANTIFUNGAL AGAINST *Candida* spp.

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Abstract:

The use of natural products in the conventional therapy has been important in the recent years due to the high rate of toxic effects and excessive growth of multidrug-resistant strains to antibiotics used in clinical practice. Between the new trials therapeutic front of fungal diseases, deserves special attention to those acquired by species of the genus *Candida*, being classified as fungal infections that can cause damage to human body. The plant species *Casearia sylvestres* Swartz has been shown interest in the scientific community, with important therapeutic properties like anti-inflammatory, antiulcerogenic, healing, cytotoxic strains in tumor cells and snakebite. In this context the present study was to evaluate the potential antifungal *in vitro* of the ethanolic extract of the *Casearia sylvestris* leaves against the standard ATCC strains of the species *Candida albicans*, *Candida tropicalis*, *Candida glabrata*, *Candida krusei* and *Candida parapsilosis*. The study was carried out using the dilution method in microplates (microdilution), in which the plant extract was evaluated at concentrations of 1000 to 7,81 µg / mL. As positive controls employed were the drugs fluconazole (256 ug / mL) and amphotericin B (32 ug / mL). The microplates were incubated for 48 hours at 37°C and after the incubation period were performed using the readings 2,3,5 - triphenyltetrazolium chloride (TTC). The results showed the potential of the plant extract on the selectivity of action against non-albicans strains used in the study since they did not show activity against *C. albicans* (MIC > 1000 mg / mL). Highlight the promising activity of strains resistant to conventional drugs, *C. krusei* (MIC = 125µg / mL) and *C. glabrata* (MIC = 62.5 mg / mL). The data reported importance for the therapy of fungal diseases, since drug therapy in infectious cases by non-albicans species is low and and it is often does not exist because of multidrug resistance to antifungal agents available.

Keywords: *Casearia sylvestris*; antifungal activity; *Candida* ssp; microdilution.

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