

Title: ISOLATION AND SUSCEPTIBILITY PROFILE TO ANTIFUNGALS FOR *Cryptococcus laurentii* ISOLATED FROM TREE SPECIES

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Cryptococcus genus comprises several species, highlighting *C. neoformans* and *C. gattii* because of the clinical cases in humans and animals. Other species are now called emerging yeasts, due to the more relevance in medicine and veterinary clinics. The improvement of immunosuppressed individuals in the last decades for different reasons results in a greater number of opportunistic infections. Previous reports associate these yeasts with trees as saprobes. The objectives of the present study were associated these *Cryptococcus* species with different material of tree species and determinate the susceptibility profile to antifungals. Samples of bark, branches, leaves and flowers (when present) from *Anacardium occidentale*, *Cassia fistula*, *C. grandis*, *Eucalyptus* spp, *Mangifera indica*, *Psidium guajava* and *Terminalia catappa* were collected and transported inside sterile bags. To search epiphytic microorganisms the samples were fragmented into smaller pieces and 50 g of this were placed in 500 mL 0.9% saline with chloramphenicol and stirring for an hour. To search for possible endophytic isolates, the materials were initially disinfected with submersion in 200mg/L chloramphenicol followed by chlorhexidine and drying. After these steps, the samples were seeding in Sabouraud Dextrose Agar and a differential medium, containing dopamine. The isolated strains were phenotypically identified according Kurtzman et al. (2011) and the antifungal disk diffusion susceptibility test to amphotericin B, ketoconazole, itraconazole, fluconazole and miconazole was realized according to CLSI – M44-A2. *Cryptococcus laurentii* was isolated from *Terminalia catappa* (5), *Psidium guajava* (5), *Cassia fistula* (2), *Mangifera indica* (1) and *Eucalyptus* spp (1). These isolates almost entirely were sensitive to amphotericin B (85,7%), whole sensitive to ketoconazole, itraconazole showed isolates sensitive (50%) and intermediate (50%). Our samples showed predominant resistance to fluconazole (78,6%) and intermediate response to miconazole. (78,6%). The report of this specie involved in clinical cases and the resistance observed to some antifungals agents should reflect concern for the entire scientific community, considering *C. laurentii* as an emerging yeast.

Key-word: *Cryptococcus laurentii*, trees, susceptibility