

Title: *Cryptococcus magnus* ISOLATED FROM TREE SPECIES AND EVALUATION OF SUSCEPTIBILITY TO ANTIFUNGALS

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The genus *Cryptococcus* comprises several species, especially *C. neoformans* and *C. Gattii* due to their clinical relevance for humans and other animals. Some *Cryptococcus* species, the now called emerging yeasts, show growing relevance in medicine and veterinary practices. The rising number of immunosuppressed individuals throughout the last decades, for different reasons, resulted in a greater number of opportunistic infections. Previous reports associate these yeasts with trees as saprobes. The main purposes of the present study were associating these *Cryptococcus* species with different materials from tree species and determining their 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 for epiphytic microorganisms the samples were fragmented into smaller pieces of which 50 g were placed in 500 mL of 0.9% saline solution with chloramphenicol and then stirred for an hour. To search for possible endophytic isolates, the materials were initially disinfected by submersion in 200mg/L chloramphenicol, followed by chlorhexidine and drying. The samples were then seeded 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 was performed according to CLSI – M44-A2, to amphotericin B, ketoconazole, itraconazole, fluconazole and miconazole. *Cryptococcus magnus* was isolated from *Cassia fistula* (4), *Mangifera indica* (4) and *Eucalyptus* spp (1), not being isolated from the other species. All isolates were susceptible to amphotericin B and ketoconazole. Itraconazole showed 6 sensitive isolates (66,7%), 1 intermediate (11,1%) and 2 resistant (22,2%). 7 strains showed resistance (77,8%) and 2 sensibility (22,2%) to fluconazole. The majority of isolates had an intermediate response to miconazole. (77,8%) while 2 were susceptible (22,2%). What has been reported regarding this specie involvement in clinical cases and the resistance observed in the present work to the tested antifungal agents should reflect concern in the entire scientific community, considering *C. magnus* as an emerging yeast.

Keyword: *Cryptococcus magnus*, trees, susceptibility