TITLE: PROSPECTING ENVIRONMENTAL SOURCES OF *Cryptococcus neoformans* (SANFELICE) VUILLEMIN and *Cryptococcus gattii* (VANBREUS. & TAKASHIO) KWON-CHUNG & BOEKHOUT IN MUNICIPALITIES IN THE STATE OF PARÁ, BRAZIL

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ABSTRACT:

The *Cryptococcus gattii/Cryptococcus neoformans* species complex, includes the main agents of the cryptococcosis. These species are encapsulated yeasts with marked neurotropism, being the main responsible for meningoencephalitis fungal. *Cryptococcus neoformans* is predominantly opportunistic and ecologically associated with avian droppings, while *C. gattii* behaves predominantly as a primary pathogen and associated decomposing wood of trees. The infection occurs by inhalation of dried yeasts present in the environment and possibly basidiosporos. In Brazil, opportunistic cryptococcosis occurs in all the regions, while the primary infection prevails as a systemic endemic mycosis in the North and Northeastern regions. The aim of this study was to investigate possible environmental sources of these agents in municipalities of the state of Pará. For this were collected materials of vegetable origin and bird's droppings were carried out in the municipalities of Cametá, Igarapé-Açú and the districts of Oureiro (Belém) and Beja beach (Abaetetuba), located in the state of Pará, Brazil. In laboratory the samples were processed and inoculated in an indicative medium, Niger seed agar (NSA). The positive fenoloxidase colonies were subcultivated in Sabouraud dextrose agar with antibiotic for micromorphological study and species differentiation through the canavanina-glycine-blue de bromothymol test (CGB). Of the fifty-seven samples analyzed one sample of vegetable hollow was positive for *C. neoformans and C. gattii*, obtaining forty isolates. These findings represent the first environmental evidence of the cryptococcosis agents for the city of Marabá, suggesting that new investigations should be conducted seeking to broaden the knowledge of the natural sources of these important pathogens in the Amazon region.

Keywords: C*ryptococcus neoformans*, Cryptococcus *gattii*, environment, Pará

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