

**TITLE:** RESEARCH OF YEAST OF COMPLEX CRYPTOCOCCUS NEOFORMANS/GATTII IN EXCRETAS OF BIRDS PSITACÍDEOS AND PASSERIFORMES IN THE STATE OF MATO GROSSO

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### **ABSTRACT**

Cryptococcosis is an opportunistic fungal infection caused by encapsulated yeasts belonging to the *Cryptococcus neoformans/Cryptococcus gattii* complex. It is acquired through the inhalation of infective propagules. The clinical forms of cryptococcosis can be: cutaneous, pulmonary, systemic, and in most cases neurocryptococcosis (meningitis and meningoencephalitis). Not infrequently cases of meningoencephalitis culminate in death of patients. The ecological niche of these agents is generally related to hollows located in different species of trees, as well as excreta of pigeons, parrots and passerines. The main objective of this investigation was to isolate yeasts from the *C. neoformans/C. gattii* complex in psittacine and passerine excreta marketed in stores in the State of Mato Grosso. A total of 237 samples were collected from psittacine and passerine excreta from October 2018 to April 2019, which were sent to the Laboratory of Medical Mycology/Research of the Federal University of Mato Grosso (UFMT). The samples were identified and processed as follows: 2g were diluted in 8 mL distilled water plus 0.4 g chloramphenicol. They were then homogenized, and allowed to stand (gravitational sedimentation) for 1 hour. From each sample, 100µL of the supernatant was seeded in 10 Petri dishes containing Niger Agar (NSA) plus chloramphenicol (0.4g/L) and ampicillin (120µg/L). They were incubated at 35 °C in a B.O.D oven for 3 days. After incubation, all plaques were examined for the isolation of colonies suggestive of the *C. neoformans/C.gattii* complex. It was isolated 19 colonies showing dark brown coloration in Niger agar medium (phenoloxidase positive), suggestive of yeasts of *C. neoformans/C.gattii* complexes. The urease test was positive for the 19 isolates. For the determination of molecular types, appropriate techniques will be used. It is important to emphasize the exposure and risk of both employees and parrot and passerine breeders who are frequently in contact with excreta due to the need for daily cleaning of cages and the passage (treatment) of birds, favoring the possible acquisition of cryptococcosis.

**KEYWORDS:** Birds, *C. gattii*, *C. neoformans*, Cryptococcosis.

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