

TITLE: IDENTIFICATION OF *Cryptococcus gattii* IN A MONGREL CAT AT SANTA CATARINA STATE, BRAZIL

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ABSTRACT:

Cryptococcosis is a systemic fungal disease, which affects humans and other animals such as cats. It is mainly responsible for a respiratory syndrome, causing nasal deformity, leading to the appearance of “clown nose” in cats. Infection is caused by inhaling spores, especially *C. neoformans* and *C. gattii* species, that can spread to other organs. Despite that, it can present different clinical forms, such as respiratory syndrome, cutaneous, infections of central nervous system and systemic disease. The present study analyzed a case of cryptococcosis in a 4-month-old domestic cat (*Felis catus*), in Ibirama – SC. The animal showed clinical signs such as dyspnea, sneezing, tearing, major volume increase of the nasal plan and cutaneous lesions. After clinical examination, a CBC profile was ruled out, showing only a mild eosinophilia. Following, samples of exudate were isolated on Sabouraud Dextrose Agar (SDA), macroscopically evidencing bright yellow colonies, having the same result on the Niger Seed Agar (NSA), with negative melanin production. Spherical and oval encapsulated forms were verified by cytology, stained with Chinese Ink preparation. Definitive diagnosis was obtained using Agar test - Canavanine Glycine Bromothymol blue (CGB), suggesting the identification of *C. gattii*. A clinical improvement of the animal was noticed after therapeutic treatment using 10mg/kg of Itraconazole once a day. Soil and environmental samples will be collected to molecular analyses, and comparison of isolates with animal and human strains. This report is of great relevance, since there is only one report Brazil, and because animals may be sentinels for the human infection. Given the data presented, the knowledge of clinical aspect is of extreme importance, such as epidemiology, in face of diagnosing Cryptococcosis in animals.

Keywords: Cryptococcosis; *Cryptococcus neoformans*; *Cryptococcus gattii*; Cats