

**Title: DETECTION OF *CRYPTOCOCCUS NEOFORMANS* AND *C. GATTII* FROM INDOOR DUST FROM HOUSES IN RURAL AREAS OF IRANDUBA, AMAZONAS, BRAZIL**

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**Abstract:**

Cryptococcosis is a systemic mycosis caused by *Cryptococcus* that has a high mortality. This study evaluated the indoor dust from houses in rural communities of Iranduba/AM as an environmental source of *Cryptococcus* infection. The municipality of Iranduba is the only one located among the Rio Negro - dark waters and white sandy beaches - and Rio Solimões - muddy waters with rich animal life. The labor occupations in these rural communities are agriculture and fishing. To carry out this work 160 household dust were collected, 77 (48.12%) of “Comunidade São Sebastião da Serra Baixa” and 83 samples (51.87%) from “Comunidade do Limão” were collected, 68 located in dry areas and 15 in flooded areas after rain period. One gram of each sample was suspended in 50 mL 0.9% sterile saline. After agitation and rest, 0.1mL was plated on NSA (Niger Seed Agar) medium with chloramphenicol (10 plates for each sample), which were incubated at 30°C/5 days. Each phenol oxidase-positive/brown colony was subcultured on NSA medium. The yeast isolates were tested for thermotolerance at 37 °C, sensitivity to cycloheximide, growth on medium CGB and genotyping by molecular biology. Two dust samples (2.59%) from “Comunidade São Sebastião da Serra Baixa” were positive, one for *Cryptococcus neoformans* molecular type VNI and other *C. gattii* molecular type VGII. Samples of “Comunidade do Limão” were positive in 10 houses (12.04%), where it was possible to identify the mixed presence in 3 of these houses, with the existence of both *C. neoformans* molecular type VNI and *C. gattii* molecular type VGII sharing the same habitat. Therefore, it is confirmed the presence of *C. neoformans* and *C. gattii* in indoor dust from house in rural areas of Iranduba-AM, which is the first report of the joint occurrence of these species in household dust in Amazonas state.

**Keywords:** *Cryptococcus*, Indoor Dust, environmental

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