

## **Isolation and characterisation of *Cryptococcus neoformans* and *Cryptococcus gattii* from environmental sources in Nairobi, Kenya**

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**Objective:** To establish the environmental reservoirs of *Cryptococcus neoformans* and *Cryptococcus gattii* in Nairobi, Kenya.

**Design:** Prospective study.

**Setting:** Kenya Medical Research Institute, Mycology laboratory, Nairobi, Kenya.

**Subjects:** A total of 400 environmental samples from different sites were analysed including; avian droppings, tree swabs, soil contaminated with avian droppings and swabs from garbage dumping sites. Samples were subjected to various phenotypic tests including microscopic morphology, physiological and biochemical tests, pigmentation on bird seed agar and reaction on Canavanine-Glycine-Bromothymol Blue agar.

**Results:** *Cryptococcus neoformans* was isolated from 23/200 (11.5%) dropping samples and *Cryptococcus gattii* in 5/200 (2.5%) of the same samples. *Cryptococcus gattii* was isolated from 7/60 (11.7%) tree swabs and *Cryptococcus neoformans* in 5/60 (8.5%) of the same samples. From other sites there was no *Cryptococcus gattii* recovered with (5/50: 10%), (6/60: 10%), (2/30: 6.7%) *Cryptococcus neoformans* recovered from chicken cage, garbage dumping site and soil respectively.

**Conclusion:** Findings clearly showed a high presence of *Cryptococcus neoformans* and *Cryptococcus gattii* from several environmental sites in Nairobi, Kenya. This could probably explain the high incidence of cryptococcal meningitis in HIV/AIDS patients in Kenya.