Answer to Photo Quiz: *Cladophialophora bantiana*

(See page 2215 in this issue [[doi:10.1128/JCM.01750-14](https://doi.org/10.1128/JCM.01750-14)] for photo quiz case presentation.)

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Cladophialophora bantiana is the leading cause of cerebral phaeohyphomycoses. Its natural habitat is soil and rotting vegetation. Unlike other species of *Cladophialophora*, which tend to be geographically limited, *C. bantiana* has been isolated worldwide. Infection is often in immunocompetent patients, and the route of entry is presumed to be via inhalation. Although *C. bantiana* can cause diverse clinical presentations, it is primarily neurotropic and often causes cerebral abscesses. The laboratory diagnosis on this patient was made on the basis of morphology (growth on potato flake agar), specifically the absence of distinct conidiophores and the long, nonfragile chains of oval conidia, and growth at 40°C (1). These features are key characteristics of this mold and are not observed in other *Cladophialophora* species (*C. carrionii*, *C. boppii*, or *C. emmonsii*) or the genus *Cladosporium*. Unlike *Cladosporium* spp., *C. bantiana* does not have darkly pigmented hila or distinctive shield cells (see Fig. 1 in the photo quiz). Primary histopathology features are septated, brown (melanized) hyphal elements with undifferentiated conidiophores. Although the definitive source of infection could not be determined, it is likely that the mold was acquired through inhalation since the patient had spent several days clearing leaves in his yard prior to presentation. A major environmental source of this mold is the soil and other diverse environments, including pine needles, decaying tree bark, showers, and greenhouses.

Per the Centers for Disease Control and Prevention guidelines, *C. bantiana* should be manipulated only in a class II biological safety cabinet under biosafety level 2 (BSL-2) conditions (2).

Although the paucity of cases has not permitted prospective clinical trials, a review of the literature suggests that the combination of aggressive surgical resection and liposomal amphotericin B, voriconazole, and/or 5-flucytosine is the most effective treatment (3). The mortality rate for *C. bantiana* infection is 70%. Our patient was maintained on systemic and intracavitary amphotericin B and intravenous voriconazole. To date, he has required two additional aggressive resections, without definitive cure, which highlights the virulent nature of this organism.

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