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Letter to the Editor

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Fungal corneal abscess caused by *Exophiala dermatitidis*

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Sir

Exophiala dermatitidis is a saprophytic black yeast. It is widely distributed in the natural environment and it has the capacity to grow in extreme conditions. Although human infections caused by *E. dermatitidis* are rare, this fungus can occasionally cause subcutaneous and systemic infections. Factors that contribute to pathogenicity are its ability to produce biofilm and melanin, which forms part of the cell wall of black yeasts [1,2]. Here, we present a case of corneal infection by *E. dermatitidis*.

A 68-year-old woman was admitted to the Emergency Department for pain and red eye of one week of evolution. She had undergone a protected penetrating keratoplasty a year ago. Biomicroscopy revealed conjunctival hyperemia, transparent corneal button, brownish corneal foreign body with rubbery paracentral aspect with perilesional corneal thinning. Corneal foreign body was removed and a sample was sent to our laboratory. The patient was initially treated with moxifloxacin eye drops and oral doxycycline and later the treatment was changed to vancomycin and ceztazidime eye drops and oral doxycycline.

The sample obtained was incubated in blood, chocolate and Sabouraud agar and thioglycolate broth. There was growth of dark colonies after 48 hours of incubation at 37°C in the three media and in the reseed of thioglycolate (Figure 1A). The Gram staining of these colonies is shown in Figure 1B.

The identification of the microorganism isolated was realized by matrix-assisted laser desorption/ionization-time-of-flight-mass spectrometry (MALDI-TOF MS) (Maldi Biotyper®Bruker Dal-tonics) resulting in *E. dermatitidis* with a score value of 2.4.

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Antifungal susceptibility testing was performed by microdilution (Sensititre YeastOne, Thermo Fisher). The minimum inhibitory concentrations (MIC) of amphotericin B (0.50 mg/L), itraconazole (0.12 mg/L), voriconazole (0.03 mg/L), and posaconazole (0.03 mg/L) against the pathogenic strain were found to be low. However, MIC of fluconazole (8 mg/L), micafungin (>8 mg/L), caspofungin (>8 mg/L) and anidulafungin (>8 mg/L) were high. Based on these results, voriconazole eye drops for two months and oral voriconazole during three weeks were administered with good clinical evolution.

Reviewing the literature, we have only found a few cases of eye infection by *E. dermatitidis* [1,3-6]. However, this yeast is involved in diverse pathologies such as central line infection [7], pneumonia [8], meningoencephalitis [9] or skin and soft-tissue infections [10] among others.

Regarding susceptibility, there are no defined breakpoints for any species in the genus. Our strain had high MIC to fluconazole and echinocandins. These data are in line with other reported cases [1, 4]. It is necessary to study large number of cases in order to obtain representative data of the antifungal susceptibility of this species.

The case presented here confirm the ability of *E. dermatitidis* as an opportunistic pathogen especially in patients with ocular trauma, pre-existing ocular disease or immunocompromised states.

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CONFLICT OF INTEREST

Authors declare no have conflict of interest.

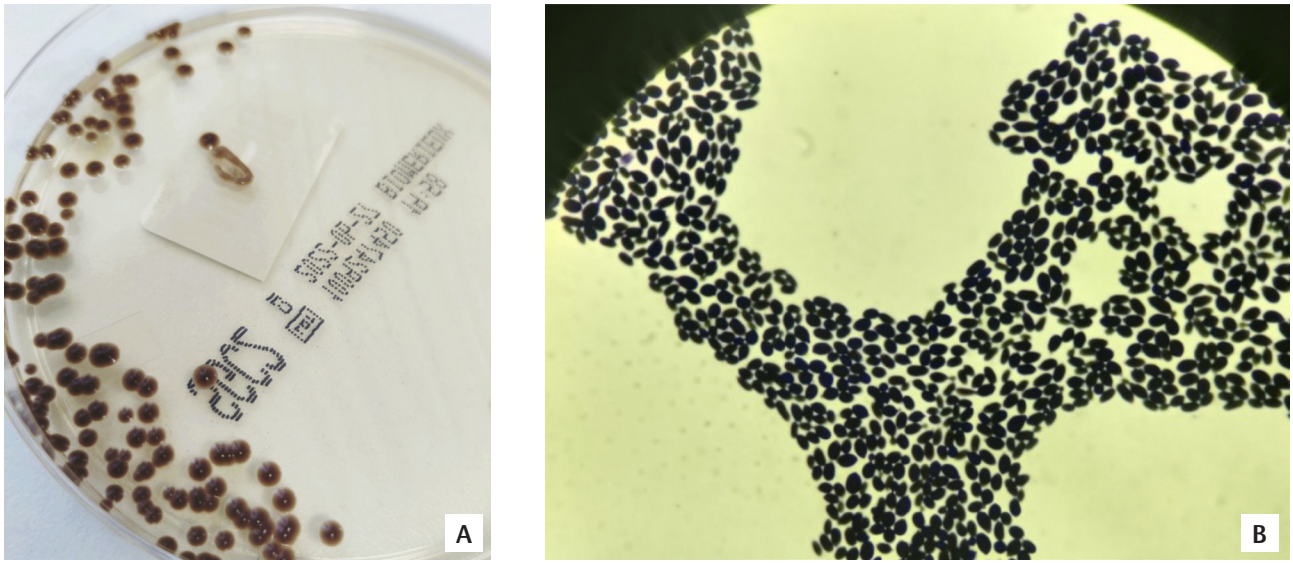

Figure 1 | **A) Image of brownish colonies of *E. dermatitidis* in Sabouraud agar. B) Gram staining of *E. dermatitidis* colonies**

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