

Abstract:

Background: *Exophiala* (*Wangiella*) *dermatitidis* is a clinically relevant black yeast. Although *E. dermatitidis* rarely causes human infection, it can cause superficial and deep-seated infections, and cutaneous and subcutaneous diseases. Cases of fungemia and central line-associated bloodstream infections due to *E. dermatitidis* are extremely uncommon, and their clinical manifestations and prognosis are still not well-known. Herein, we report a case of central line-associated bloodstream infections in a patient with cancer. These infections were caused by melanized yeast that was finally identified as *E. dermatitidis* via internal transcribed spacer sequencing and matrix-assisted laser desorption/ionization time-of-flight mass spectrometry.

Case presentation: A 75-year-old man with thoracic esophageal cancer and early gastric cancer presented with a 1-day history of fever during his hospitalization at our hospital. A central venous port was placed in the patient for total parenteral nutrition. Two *E. dermatitidis* isolates were recovered from two blood samples drawn at different times from a peripheral vein and this central venous port. The isolate was identified as *E. dermatitidis* by internal transcribed spacer sequencing and matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. The central venous port was removed, and the patient was administered micafungin and voriconazole. Although the minimum inhibitory concentrations of *E. dermatitidis* for voriconazole and minimum effective concentrations for micafungin were 2 µg/mL and 4 µg/m, respectively, the bacteremia was successfully treated.

Conclusions: Although no clear treatment guidelines have been proposed for *E. dermatitidis* infections, immediate removal of central venous catheters is the key to improving central line-associated bloodstream infections.

Reference:

Itoh N, Murakami H, Ishibana Y, Matsubara Y, Yaguchi T, Kamei K. Challenges in the diagnosis and management of central line-associated blood stream infection due to *Exophiala dermatitidis* in an adult cancer patient. *J Infect Chemother*. 2021 Apr 19:S1341-321X(21)00116-1. doi: 10.1016/j.jiac.2021.04.009. Epub ahead of print. PMID: 33888421.