

Fatal *Saprochaete capitata* Fungemia In An Intensive Care Unit Patient Without Malignancy

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Introduction

Saprochaete capitata (teleomorph *Magnusiomyces capitatus*; formerly known as *Geotrichum capitatum* and *Blastoschizomyces capitatus*) is a fungus that can form colonies in the respiratory tract, gastrointestinal tract and on human skin. It is reported as a disseminated infectious agent in immunocompromised patients, especially those with hematological malignancies and severe neutropenia. Furthermore, there are limited case reports from patients without malignancy and also immunocompetent patients. The clinical spectrum of disseminated infections caused by *Saprochaete capitata* is very similar to those produced by other yeast such as *Candida*. Prolonged neutropenia, chemotherapy, broad spectrum antibiotics and vascular catheterization are the risk factors for invasive infections. Disseminated *Saprochaete capitata* infections have high mortality ratios and the clinical means for optimal treatment are insufficient.

Saprochaete capitata is usually differentiated by carbohydrate assimilation test. Recently MALDI TOF MS (Matrix-Assisted Laser Desorption/Ionization Time-of Flight) has been utilized in identification of yeasts. In this report, fatally progressed *Saprochaete capitata* fungemia results are shown for non-malignant geriatric patient treated for pneumonia in the intensive care unit (ICU).

Case Report

An 86-year-old woman with anamnesis of hypertension for ten years, diabetes mellitus, chronic renal failure, aortic valve stenosis, and congestive heart failure, came to the emergency department with a complaint of coughing, stertorous respiration and shortness of breath and taken into the ICU immediately. A central venous catheter was placed, and treatment for pneumonia was initiated. Non-germ tube forming and round yeast colonies of cream color with hairy formations on the periphery were observed in her blood culture.

Fluconazole treatment was started; however the patient died before she was diagnosed with *Saprochaete capitata* infection. Carbohydrate assimilation tests (Vitek 2, Biomerieux, France) and MALDI-TOF MS (Bruker Daltonics, Germany) were used in combination to identify yeast strain.



Figure 1. Colonies of *S. capitata* on sabouraud dextrose agar.

Conclusion

In summary, *Saprochaete capitata* should be considered as a cause of disseminated infections in ICU patients without malignancy along with various risk factors. Thus, quick and rapid identification of these yeasts is very crucial for employing proper antifungal treatment.