

A Rash Decision: A Case of Disseminated Fusariosis in a Patient with Acute Lymphoblastic Leukemia

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INTRODUCTION

Fusarium species are ubiquitous fungi that cause invasive infections, particularly in immunocompromised individuals. This includes **disseminated fusariosis**, a rare but life-threatening invasive fungal infection.

A **high index of suspicion** is warranted in patients with **prolonged neutropenia and persistent fever** that is refractory to standard antimicrobials along with the sudden appearance of typical skin lesions.

CASE PRESENTATION

We report a **64-year-old, female** who was diagnosed with precursor B-cell Acute Lymphoblastic Leukemia and underwent initiation HyperCVAD. Post-chemotherapy, she developed **profound neutropenia, persistent febrile episodes and progressive cough**. Initial set of blood cultures and septic workup were negative for any microorganism. Broad-spectrum antimicrobials were administered empirically, however, she remained febrile and profoundly neutropenic.

One-week post-chemotherapy, she developed erythematous maculopapular skin lesions that evolved into necrotic plaques on her upper and lower extremities. Blood cultures were repeated upon the onset of the skin lesions which grew ***Fusarium solani* complex** leading to the diagnosis of disseminated fusariosis. She was started on Liposomal Amphotericin B and Voriconazole with lysis of fever and documented clearing of *Fusarium* species on repeat blood culture.

DISCUSSION

Disseminated fusariosis is a challenging infection that carries a high mortality rate, especially in immunocompromised patients. This highlights the importance of a high index of suspicion, a comprehensive diagnostic workup, and timely initiation of appropriate antifungal therapy. Early diagnosis and prompt treatment are critical since outcome is largely dependent on the recovery of immunosuppression especially neutrophil recovery.

IMAGES



Image 1. A solitary, well-defined, irregular shaped ulcer on an erythematous base with necrotic eschar on the patient's right forearm



Image 2. Multiple well-demarcated ulcerative and necrotic lesions with violaceous raised borders, some with necrotic eschar and surrounding erythema over the patient's lower extremity