

Abstract Title: Coccidioides endocarditis presenting as hand abscess

Coccidioides is a fungal pathogen capable of causing systemic disease in humans. Its widespread natural habitat and ability to infect immunocompetent individuals makes early recognition of extrapulmonary manifestation vitally important to avoid fatal sequelae. A 27 year old African American man presented to the emergency department with a small pustular lesion on the right wrist of many weeks duration. Imaging confirmed the presence a superficial abscess which was incised at the bedside. Blood cultures were obtained and the patient was discharged home with oral antibiotics. Two days later he was admitted for failure of outpatient therapy and underwent surgical wound exploration which showed purulent, necrotic material. His postoperative course was unremarkable, including negative bacterial blood and wound cultures and the patient was again discharged. Approximately five days later, the patient returned to the emergency department with hemoptysis and chest pain. Review of the previously obtained histopathologic specimens suggested probable hyphae in the necrotic appearing material. Previous wound culture specimen had also become positive for coccidioides species, suggesting disseminated coccidioides infection. Thoracic imaging showed multifocal airspace processes as well as an anteriorly located mediastinal mass invading the pulmonary artery and compressing the IVC. Fungal cultures of blood were obtained, confirming the previously suspected coccidioides species. Patient was placed on amphotericin B and itraconazole but doses were not ideal due to intolerable side effects and acute renal insufficiency. Transthoracic echocardiography showed large mitral valve vegetations with severe mitral regurgitation. Antifungal therapy was continued but failed to decrease the size of vegetations on subsequent imaging. Valve replacement was then planned but ultimately not completed as patient left AMA. He is currently receiving posaconazole as salvage therapy in the outpatient setting. Endocarditis due to coccidioides species represent a vanishingly small portion of all cases of fungal endocarditis. Predisposing conditions include HIV infection, organ transplantation and chemotherapy to name only a few. Though our patient had no general immunosuppressive factors, he was of African American descent which in itself is predisposing to disseminated coccidioides infection. Early recognition of systemic coccidioides in otherwise healthy, immunocompetent patients remains supremely important to avoid such problems as mediastinitis and endocarditis. These complications routinely carry 50-75% mortality even with appropriate parenteral antifungal treatment. The absolute infrequency of coccidioides endocarditis and failure of most institutions to routinely obtain fungal blood cultures, can delay recognition and ultimately contribute to an already dismal prognosis.

Category: Clinical Vignette

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