Mycobacterium Avium Complex (MAC) Sepsis in an Immunocompetent Patient Isolated from Routine Blood Culture

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Mycobacterium avium complex (MAC) includes *Mycobacterium avium* and *Mycobacterium intracellulare*. Disseminated MAC characteristically involves multiple nodes, spleen, liver, bone marrow, and blood, and is an opportunistic infection almost uniquely associated with patients with advanced AIDS with CD4 lymphocyte count < 50 cells/mm³ and/or high plasma HIV RNA > 100,000 copies/mL. In HIV negative patients without immunosuppression, pulmonary MAC occurs in smokers, cystic fibrosis patients, and elderly women with nodular bronchiectasis. We report a case of a 60-year-old African American HIV-negative man with a past medical history of quadriplegia secondary to C3-C4 spinal cord injury, status post tracheostomy and PEG tube placement, ventilator-dependent chronic respiratory failure, presenting to the emergency department for dislodged PEG tube. At admission, the patient was hypertensive with blood pressure of 163/123 mm of Hg and was given one dose of labetalol. Subsequently, he became hypotensive with blood pressure of 60/30 mm of Hg and was treated with IV fluids and pressors. The patient had leukocytosis (31.3 TH/cu mm) with 90% neutrophils, mild anemia (Hb 9.3 g/dL), and thrombocytopenia (77 TH/mm³). Routine peripheral blood cultures were positive for acid-fast bacilli 6 days after inoculation. MAC was identified using DNA probe 3 weeks later. The patient was started on broad-spectrum antibiotics (vancomycin and zosyn). The patient continued to have worsening hypotension despite increasing doses of pressors and ultimately died on the fifth day of admission despite aggressive life support. Disseminated MAC is a potentially fatal infection and the most common cause of death in AIDS patients. This case highlights the unusual presentation of MAC in an immunocompetent patient with multiple comorbidities. It is important to screen for MAC irrespective of HIV status so that prompt treatment of this potentially lethal infection can be initiated.

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