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Epidemiology and management of mycobacterial infections in the immunocompromised patient

Maximo O. Brito

Division of Infectious Diseases, Immunology and International Medicine, University of Illinois at Chicago, United States

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ABSTRACT

Reactivation tuberculosis (TB) and *Mycobacterium avium* complex (MAC) disease are significant causes of morbidity in HIV infected patients, especially in resource-constrained settings. These diseases are the most common AIDS-presenting illnesses in some countries. Although morbidity and mortality have significantly decreased with the advent of Highly Active Antiretroviral Therapy, significant challenges exist in treating patients, among them overlapping medication toxicities, drug-drug interactions and the risk of developing Immune Reconstitution Inflammatory Syndrome. Mycobacterial resistance to existing antimicrobials continues to rise, further complicating the management of these patients and presenting a public health challenge.

Solid organ and hematopoietic stem cell transplant recipients are also at increased risk of developing TB and MAC disease. In addition, although patients with cellular immune defects are perceived to be at higher risk for non-tuberculous mycobacterial infection, limited data exist on the frequency of these infections in this patient population. Incidence may be influenced by the degree of immunosuppression and the types of immunosuppressants used. Diagnosis is sometimes challenging, and the clinician needs to keep a high index of suspicion to correctly diagnose the syndromes caused by these bacteria.

The author will review the epidemiology, clinical presentation, diagnostic methods and principles of treatment of the most common mycobacteria that cause disease in HIV and transplant recipients, and will discuss some of the nuances in the management of these patients.

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