Clinical vignette: MAC-IRIS in HIV/AIDS patient presents as endo-bronchial lung mass lesion

Moustafa Youssef

Peggy Beeley

Follow this and additional works at: https://digitalrepository.unm.edu/hospitalmed_pubs

Recommended Citation


This Presentation is brought to you for free and open access by the Internal Medicine at UNM Digital Repository. It has been accepted for inclusion in Hospital Medicine by an authorized administrator of UNM Digital Repository. For more information, please contact disc@unm.edu.
As of December 2009, 33 million people worldwide were estimated to be living with HIV/AIDS. Of the 33 million, 22.5 million were living in sub-Saharan Africa alone.

At the end of 2008, an estimated 1.2 million persons in the United States were living with HIV/AIDS. Approximately 2.9 million lives have been saved because of access to anti-retroviral therapy.

The prevalence of HIV appears to have stabilized, or even decreased, in some countries due to increased survival of infected people due to treatment with antiretroviral drugs.

The extent of CD4+ T cell immune suppression prior to the initiation of antiretroviral therapy (ART) therapy in February 2010. Fever evaluation revealed PET scan with left lower lobe lung mass with mediastinal and hilar lymphadenopathy concerning for AIDS-related lymphoma, and sputum culture stained positive for acid fast bacilli. Viral load on admission was 3200 copies/ml and CD4 count was 131.

Lung mass biopsy showed organizing pneumonia with necrotizing granulomas consistent with MAC pneumonia. The biopsy culture and a thoracentesis fluid specimen subsequently grew MAC.

Diagnosis of disseminated MAC IRIS was made and the patient was started on four-drug therapy for MAC with continuation of ART.

IRIS in patients initiating ART has been firmly established as a significant problem. Because of wide variation in clinical presentation and the still increasing spectrum of symptoms and etiologies reported, diagnosis remains problematic. Furthermore, no specific test is currently available to establish an IRIS diagnosis.

**IRIS**

- **Definition**
  - The term “immune reconstitution inflammatory syndrome” (IRIS) describes a collection of inflammatory disorders associated with paradoxical worsening of preexisting infectious processes following the initiation of highly active antiretroviral therapy (HAART) in HIV-infected individuals.

- **Incidence**
  - Up to 30% of HAART responders developed one or more inflammatory syndromes consistent with IRIS.

- **Etiology**
  - A variety of microorganisms are known to cause IRIS, including Mycobacterium avium, Mycobacterium kansasii, and Pneumocystis jirovecii.

- **Immunobiology and Pathogenesis**
  - The likelihood and severity of IRIS correlates with two interrelated factors: 1. The extent of CD4+ T cell immune suppression prior to the initiation of HAART; 2. The degree of viral suppression and immune recovery following the initiation of HAART.

  - Pathogenesis remains largely speculative. Current theories concerning the pathogenesis of the syndrome involve a combination of underlying antigenic burden, the degree of immune restoration following HAART, and host genetic susceptibility.

- **Treatment**
  - Continue HAART therapy is reasonable in patient with IRIS that is not life threatening.
  - Management of specific IRIS-related syndromes.

**Summary Points**

- The possibility of IRIS should be considered when initiating ART.
- When IRIS is suspected, thorough evaluation for a specific underlying pathogen should be performed based on clinical symptoms.
- When a diagnosis is made, pathogen specific treatment should be initiated promptly.
- Continue HAART therapy is reasonable in patient with IRIS that is not life threatening.

**References**

- AIDS epidemic update, UNAIDS/09.36E / JC1700E (English, November 2009)