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Rheumatology: Current Research

Editorial

HIV Positive Patients with Inflammatory Immune Reconstitution Syndrome

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DESCRIPTION

The term "Immune Reconstitution Inflammatory Syndrome" (IRIS) describes a set of inflammatory disorders associated with paradoxical worsening of pre-existing infectious processes following initiation of Antiretroviral Therapy (ART) in people with HIV. Immune reconstitution inflammatory syndrome is an over-inflammatory state that usually occurs within the first six months of treatment in HIV/AIDS patients. This is a potential complication of Highly Active Antiretroviral Therapy (HAART). Medicines can be used to treat mild cases that may require symptomatic treatment alone or with non-steroidal anti-inflammatory drugs. Corticosteroids have been used to treat more severe cases of IRIS involving fungal and bacterial infections.

Around the world, antiretroviral treatment is becoming more commonly available. After initiating ART, IRIS (Immune Reconstitution Inflammatory Syndrome) is a common adverse effect. In this review, we provide an overview of the clinical and epidemiological characteristics of HIV-associated IRIS, as well as current knowledge of

- Pathophysiological reasons,
- Available medications, and
- Preventative approaches

The range of HIV-associated IRIS is examined, with a focus on three important pathogen-associated forms:

While clinical characteristics and epidemiology are well understood, mechanism is poorly understood, resulting in ineffective therapy and preventative strategies. The timing of ART introduction is critical for reducing IRIS-related morbidity. A better knowledge of the pathogenesis of IRIS will probably lead to improved diagnostic techniques and more targeted treatments.

Demonstrations of HIV-positive patients with inflammatory immune reconstitution syndrome

HIV-related mortality has decreased dramatically, from 2.3 million in 2005 to 1.6 million in 2012. 1-3 in low- and middle-income countries, where the number of patients receiving ART has increased more than 30-fold and life expectancy is rising; this means a 10-fold increase in HIV-infected individuals receiving ART. The fact that commencing antiretroviral medication early in HIV infection improves outcomes has been incorporated into international guidelines. Because ART reduces TB patient mortality, Tuberculosis (TB) is now considered an indication for ART, independent of CD4 count. However, there is a risk of complications while beginning ART, particularly within the first six months. IRIS (HIV-associated immune reconstitution inflammatory syndrome) has emerged as a major early complication of ART use, with high morbidity and mortality, particularly in patients who begin ART with extensive immunosuppression. A pathogenic inflammatory response, which is typically directed towards microbial antigens, is associated to immune recovery after initiating ART. Despite considerable clinical and pathophysiological diversity, clinical deterioration in the early weeks to months of ART, with evidence of localized tissue inflammation with or without a systemic inflammatory response, is a critical feature. To interrupt or stop ART, IRIS should only be used as a last option. Our discussion will be limited to HIV-associated IRIS. IRIS has been reported following the reversal of various types of immunosuppression, including iatrogenic immunosuppression in transplant recipients, bone marrow recovery following treatment for hematological malignancies, and the discontinuation of anti-tumor necrosis factor therapy for rheumatoid arthritis.

Despite the fact that global access to ART is improving, IRIS is still a common side effect since many patients start ART with low CD4 counts. IRIS is a difficult condition with several different case definitions. Although some types of IRIS have well-defined clinical symptoms and epidemiology, there are no conclusive diagnostic tests or evidence-based therapeutic options. CNS IRIS is associated with a high percentage of mortality, prompting the development of more effective treatments.

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Received: October 04, 2021; **Accepted:** October 18, 2021; **Published:** October 25, 2021

Citation: Alumuku M (2021) HIV Positive Patients with Inflammatory Immune Reconstitution Syndrome. Rheumatology (Sunnyvale). S18:001.