

From Negative to Unmasked: Cryptococcal Meningitis IRIS Strikes Unexpectedly

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Immune reconstitution inflammatory syndrome (IRIS) is a paradoxical worsening of pre-existing opportunistic infections that can occur in individuals infected with human immunodeficiency virus (HIV) upon initiation of Anti-Retroviral Therapy (ART). We present a case of a patient with an AIDS diagnosis who developed unmasking IRIS despite initially negative screening for cryptococcal meningitis during lumbar puncture. A 33-year-old male with confirmed AIDS presented with disseminated tuberculosis (TB), including TB meningitis confirmed by the presence of Acid-Fast Bacilli (AFB) in the cerebrospinal fluid. Following standard anti-tuberculosis therapy, the patient's condition improved, and ART was initiated. Unexpectedly, despite negative screening for cryptococcal meningitis during the initial lumbar puncture, the patient developed a severe headache, altered mental status, and neck stiffness. Cerebrospinal fluid analysis revealed positive results for cryptococcal meningitis. This unique presentation was consistent with unmasking IRIS. The patient received induction therapy with amphotericin B and flucytosine, followed by consolidation and maintenance therapy with fluconazole. Concurrently, ART was continued with careful monitoring for drug interactions and immune reconstitution. Gradually, the patient's condition improved and achieved clearance of *Cryptococcus* from the cerebrospinal fluid. The unexpected occurrence of unmasking IRIS in a patient with initially negative screening for cryptococcal meningitis highlights the intricate and enigmatic nature of immune reconstitution. This case emphasizes the importance for clinicians to maintain a high index of suspicion for IRIS, even when initial tests were negative. Continued research is necessary to unravel the mysteries surrounding IRIS and facilitate the development of targeted interventions to optimize patient care.

Keywords: Immune reconstitution inflammatory syndrome, Cryptococcal meningitis, Acquired Immunodeficiency syndrome, Anti-retroviral therapy, disseminated tuberculosis

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