

HIV related progressive multifocal leukoencephalopathy immune reconstitution inflammatory syndrome

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Progressive multifocal leukoencephalopathy (PML) is an opportunistic infection affecting immunocompromised patients. It is a rare devastating disease of the CNS caused by the reactivation of JCV in immunocompromised patients. Patients can develop PML during antiretroviral therapy. HIV infection currently accounts for approximately 80% of new PML cases. No drug is effective against JCV. Since the restoration of CD4 and CD8 JCV-specific T cell immune responses, allowing the control of JCV replication, the initiation of combined antiretroviral therapy (cART) in HIV-infected patients remain the only available therapeutic alternative for PML. cART-induced immune recovery improved PML survival in HIV-infected patients. However, immune restoration is not always beneficial. 20% of HIV-infected patients with PML

worsen after cART initiation, due to severe neuroinflammation within settings of immune reconstitution inflammatory syndrome (PML-IRIS). The contribution of IRIS toward the clinical worsening of PML is difficult to distinguish from natural evolution of classical AIDS associated PML. Therapeutic management of PML-IRIS usually relies on steroids. However this may blunt the anti-JCV immune responses that are instrumental in the long-term control of JCV replication. We describe a case with PML in relation to immune reconstitution inflammatory syndrome (PML-IRIS).