

When weaning doesn't work: Management of steroid-refractory central nervous system (CNS) immune reconstitution inflammatory syndrome (IRIS)

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Case Presentation

A 25-year-old man from Timor Leste with no past medical history presented with 1 month of intermittent fevers, night sweats, 5kg weight loss, and a tender, enlarged cervical lymph node. Lymph node biopsy showed granulomas and was polymerase chain reaction (PCR) positive for mycobacterium tuberculosis (TB). Brain magnetic resonance imaging (MRI) showed multiple ring-enhancing intracranial lesions which were confirmed as tuberculomas on brain biopsy, culture positive and sensitive to all first-line agents. Secondary screening revealed HIV co-infection (initial CD4 count 131 (13%) and viral load 297,000 cp/ml). Small hyperpigmented lesions consistent with Kaposi's sarcoma (KS) were noted on his arms and chest. He was commenced on rifampicin, isoniazid, pyrazinamide, moxifloxacin plus pyridoxine, and weaning dexamethasone. Six weeks later, he began co-formulated abacavir/lamivudine/dolutegravir with additional 50mg dolutegravir.

Ten days later, he represented with headaches with no focal neurological deficits. Neuroimaging demonstrated a significant increase in oedema surrounding the tuberculomas. A diagnosis of TB IRIS was made and high dose dexamethasone (16mg BD) was recommenced. ART and TB therapy were continued. Dexamethasone was weaned 2 weeks later, causing confusion and headache. Neuroimaging demonstrated progression of oedema despite TB treatment.

After a third attempt at weaning steroids, 3 infliximab infusions were administered over a 6 week period whilst continuing on a weaning course of dexamethasone without return of CNS symptoms. Serial MRIs showed improvement in tuberculoma size and surrounding oedema. Four months later he represented with fever and abdominal pain. Imaging revealed grossly enlarged abdominal and inguinal lymph nodes. Lymph node biopsy demonstrated KS without evidence of tuberculosis. Treatment for disseminated KS with liposomal doxorubicin resulted in reduced lymphadenopathy, resolution of skin lesions, and further reduction in steroids.

This case outlines the management of steroid-refractory CNS TB IRIS and the development of disseminated KS in the setting of immunosuppression despite effective antiretroviral therapy.

Disclosure of Interest Statement:

Nothing to disclose