A CASE OF HIV WITH MULTIPLE RELATED INFECTIONS – BALANCING TREATMENTS, DRUG INTERACTIONS AND SIDE-EFFECTS

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Background/Purpose:
This case describes the complex management of a patient with advanced HIV, hepatitis B co-infection, disseminated tuberculosis, toxoplasmosis and immune reconstitution inflammatory syndrome (IRIS).

Approach:
A 55-year-old male, known to be a slow-progressor with hepatitis B co-infection, represented to our service with syncope, fevers and weight loss. His CD4 count was 5 x10⁶/L with a viral load of 79,433 copies/ml. He had clinical and radiological evidence of widespread lymphadenopathy and lymph node biopsy results confirmed disseminated Mycobacterium tuberculosis. There was also concern for TB pericarditis and retinitis. He commenced treatment with rifampicin, isoniazid, pyrazinamide, ethambutol and pyridoxine. Co-trimoxazole was initially avoided due to suspected G6PD deficiency and he received a pentamadine nebuliser for PJP prophylaxis. Three weeks later, he commenced tenofovir disoproxil, emtricitabine and dolutegravir for HIV and hepatitis B co-infection, and prednisolone 1mg/kg. After initial improvement, at 4 weeks he presented with fevers, confusion and liver derangement. MRI imaging of his brain revealed several new ring-enhancing lesions with central necrosis and surrounding vasogenic oedema, consistent with a diagnosis of toxoplasmosis and unmasking IRIS. In addition, worsening hepatotoxicity with a high hepatitis B viral load raised the suspicion of IRIS-hepatitis B. Medication side-effects, drug interactions and the interplay between co-infections complicated further medical management of this patient.

Outcomes/Impact:
Although the patient demonstrated clinical and radiological improvement, biochemical and haematological markers demonstrated hepatotoxicity and bone marrow suppression. Medication side-effects, IRIS and co-infections were thought to be contributory. The patient required frequent review and multiple medication alterations throughout ongoing treatment.

Innovation and Significance:
Management of patients with HIV and multiple co-infections remains difficult with monitoring for potential drug interactions and medication side-effects being an integral component of patient care. The case serves as a reminder of the often complicated course of illness that occurred in patients prior to the current era of early antiretroviral therapy for HIV.

Disclosure of Interest Statement:
No pharmaceutical grants were received in the development of this study.