

SEVERE MALARIA AND HAEMOPHAGOCYTOSIS AS FIRST PRESENTATION OF HIV IN AN OLDER FLY-IN FLY-OUT WORKER

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Background/Purpose: A 60yo Caucasian male fly-in fly-out (FIFO) worker to Zimbabwe presented to a rural Western Australian (WA) hospital with fevers, confusion and malaise. A diagnosis of severe *Falciparum* malaria was made and treatment was commenced with oral artemether/lumefantrine. He represented unwell to a tertiary service 5 days after completing therapy with fevers, jaundice, anaemia, hepatosplenomegaly and general malaise without evidence of recrudesced malaria and initially attributed to artemisinin-induced haemolysis. Fevers, haemolysis, pancytopenia and hyperferritinaemia persisted with nadir Hb 55. Profound CD4 depletion was identified while investigating for haemophagocytic lymphohistiocytosis (HLH), followed by HIV Ag/Ab testing in week 2 of admission. HIV-1 antibody was confirmed by Western Blot with CD4 count of $60 \times 10^6/L$ and viral load 407,380 copies/ml. Treatment was commenced with prednisolone and bicitgravir/emtricitabine/tenofovir alafenamide with stabilisation and cessation of transfusion requirements.

Approach: Malaria increases HIV-1 replication and may precipitate presentation to health services, and similarly HIV-1 infected patients are at increased risk of severe malaria and death. Multiple causes of haemolytic anaemia may present in this setting including HLH and treatment effects, and assessment of co-infection guides management.

Outcomes/Impact: Clinical improvement and resolution of anaemia was seen with steroid and introduction cART therapy.

Innovation and Significance: HIV infection should be suspected in returned travellers from endemic regions with unexplained presentations, even if few risk factors are initially evident. Co-infection with malaria may result in severe disease and the aetiology of severe anaemia can be challenging to elucidate.

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