CUTANEOUS HISTOPLASMOSIS IN A NEW DIAGNOSIS OF ADVANCED HIV

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Case Presentation: 41-year old man of Thai origin presented with a 3-week history of dry cough, fatigue, dyspnea, fevers, night sweats, intermittent diarrhea, unintentional weight-loss (18-kilograms) and mildly pruritic rash. His general practitioner diagnosed HIV and referred him for further management. He had no significant past medical history and tested negative for HIV 2-years prior.

On presentation he was cachectic, febrile (40^0C), tachypnoeic and hypotensive (85/60 mmHg). He had a violaceous-brown papulosquamous rash, papules varying from 2-5 mm in size, some with central umbilication involving his face, neck, chest, abdomen and arms. Examination was otherwise unremarkable. Initial investigations revealed HIV viral load (VL) of 3.7 million copies /ml, CD4+ T-cell count of 14 cells/µL, multi-resistant *Salmonella spp.* on blood cultures, bilateral diffuse ground-glass opacification on CXR and positive *Pneumocystis jiroveci* (PJP) polymerase chain reaction (PCR) on sputum. He was treated with meropenem and trimethoprim/sulfamethoxazole, with significant improvement.

Punch biopsies of skin lesions showed scattered non-septate ovoid fungal elements, some showing schizogony, without true budding, within the dermis. The clinical concern was for penicilliosis, and treatment was commenced with conventional itraconazole (Sporanox^{TM}) 200mg bd. Differential diagnoses included papular pruritic eruption, cutaneous cryptococcosis and dimorphic fungi.

Antiretroviral therapy was commenced at 2-weeks of PJP treatment (abacavir 600mg/lamivudine 300mg/dolutegarvir 50mg). Pan-fungal PCR and fungal culture of skin diagnosed *Histoplasma capsulatum*. Serum itraconazole trough level after one week was 0.33 mg/L (0.5–1.0mg/L). Itraconazole therapy was continued and compassionate access was gained for the more bioavailable itraconazole (Lozanoc^{TM}) requiring dose reduction to 100mg bd. Two-months into treatment: VL was 130 copies/mL, CD4+ T cell count was 80 cells/µL, he had gained 8 kilograms was tolerating treatment and rash had improved significantly.

Histoplasmosis is a well-described endemic mycosis in advanced HIV and should be considered in people with rash and advanced HIV who have consistent epidemiological exposures.

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