



INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

## EMERGOMYCES AFRICANUS: THE MIMICKING FUNGUS

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**Background:** Systemic fungal infections are common among persons living with advanced HIV disease in South Africa. An under-reported and emerging opportunistic infection, which can be fatal in HIV-seropositive patients, is caused by a thermally-dimorphic fungal pathogen known as *Emergomyces africanus*. The detection of *Es. africanus* is challenging in South Africa due to our limited knowledge of the epidemiology of the disease and that molecular testing is not widely available. Cryptococcosis and histoplasmosis are well-documented systemic fungal infections in HIV-seropositive patients and can masquerade as other infections, including tuberculosis. *Es. africanus* is recognized as an endemic mycosis in southern Africa and has been reported from six of the nine provinces in South Africa.

**Observation:** Clinically, patients present with polymorphic skin lesions such as umbilicated papules, nodules, ulcers, verrucous lesions, crusting and erythema. Systemic features include pulmonary, liver and splenic involvement. *Es. africanus* has been found in the soil. Histology is the fastest way to diagnose systemic fungal infections but this can be difficult as *Es. africanus* closely resembles *H. capsulatum*, with small (2 to 5 µm) intracellular and extracellular oval to round budding yeasts. Histology can detect yeasts but one cannot differentiate among the different genera. Molecular identification of cultured isolates has been the gold standard for *Es. africanus* detection but is not readily available in KwaZulu-Natal.

**Key message:** We report a case of a systemic fungal infection caused by *Es. africanus* in a HIV-seropositive patient, which was misdiagnosed as histoplasmosis clinically and on histopathology, who responded to antifungal therapy with fluconazole. Emergomycosis needs to be considered among patients who present with cutaneous lesions similar to that of histoplasmosis. Pathologists should be alerted when skin biopsies are sent for evaluation and blood and skin samples should be sent for mycological culture. This patient responded to fluconazole despite this agent's limited activity in vitro.

