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Advanced AIDS Presenting with Cutaneous Manifestations of Disseminated Cryptococcosis

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A 39 year old previously healthy man presented to a hospital for an extensive rash developing over the past 3 months. He had previously been treated empirically with a course of oral clindamycin by another physician in the outpatient setting, without improvement. The inpatient dermatology service was consulted. Physical exam demonstrated numerous umbilicated and crusted papules of varying sizes scattered across the bilateral upper and lower extremities, trunk, and face, with a large ulcerated plaque on the forehead.

A skin biopsy demonstrated fungal organisms with mucicarmine-positive capsule, permeating the dermis. CSF analysis from lumbar puncture revealed encapsulating budding yeast cells, positive for cryptococcal antigen. HIV screening was positive. CD4 count was 3 c/mm³, with HIV viral load >3,770,000 copies/ml.

A diagnosis was made of disseminated cryptococcosis, in the setting of advanced AIDS. Despite prompt treatment with IV amphotericin and flucytosine, the patient unfortunately decompensated over the following days, and his family opted to transition to hospice care.

Cryptococcus neoformans is an encapsulated yeast that can cause disseminated fungal infection in late-stage HIV patients. Of those with disseminated cryptococcosis, approximately 10-15% of cases present with cutaneous manifestations^{1,2}. These lesions often present as umbilicated papules or plaques that can mimic the appearance of molluscum contagiosum.^{2,3} Similar appearing lesions can also develop with histoplasmosis or penicilliosis. This case highlights the clinical features of systemic and cutaneous cryptococcosis, and emphasizes the importance of early detection and treatment for HIV and associated infections.

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2. Venkateshwaran S., Kulasegaram R., Rickaby, W., Dwyer, E. Rare presentation of cutaneous cryptococcosis in advanced HIV. *BMJ Case Rep.* 2018;11(1). doi: 10.1136/bcr-2018-227247.

3. Murakawa G.J., Kerschmann R., Berger T. Cutaneous *Cryptococcus* infection and AIDS. Report of 12 cases and review of the literature. *Arch Dermatol.* 1996;132(5):545-48.



