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Histoplasmosis of skin in a Patient with Advanced HIV Disease – A Case Report

KEYWORDS

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ABSTRACT *Histoplasmosis, also called as Darling's disease, is caused by the dimorphic fungus, Histoplasma capsulatum. The pulmonary and disseminated forms of histoplasmosis are very common in AIDS patients and cause great morbidity and mortality. In India, several cases of histoplasmosis have been reported since 1954, but very few cases have diagnostic confirmation by fungal culture. We report a case of Biopsy and Culture confirmed cutaneous histoplasmosis in an AIDS patient with very low CD4.*

Introduction:
Histoplasmosis is caused by spores of the dimorphic fungus Histoplasma capsulatum. It can occur either as Acute or as progressive disorder, disseminated disease or as a chronic disorder.[1] Histoplasma capsulatum var. capsulatum, that is usually found in America and the tropics, mainly causes pulmonary involvement resembling tuberculosis and may pass asymptomatically to involve the reticuloendothelial system and the skin. Histoplasma capsulatum var. duboisii, mainly causes cutaneous and osseous involvement and is strictly restricted to the African continent.[2,3].

The disease has various clinical manifestations. Disseminated disease usually occurs in patients with chronic illness or in the immunocompromised host. We report a case of cutaneous Histoplasmosis in a patient with advanced AIDS and failing therapy.

Case Report:
A 36 year old female who is a known HIV positive patient on failing Antiretoviral therapy presented to our clinic with multiple asymptomatic lesions on her face, trunk, upper limbs that are gradually spreading to the rest of her body since three to four months. Patient gives a history of occasional fever for past one to two months, generalized weakness and loss of weight and appetite since six months.

On examination multiple, discrete, skin coloured to pearly white papules with central umbilication were present over her face, back, upper limbs.[Fig1,2] Few lesions showed crusting. Generalised lymphadenopathy was present. Lymph nodes were non tender, firm and mobile. Her CD4 was low at 8 cells/uL & Viral Load – 253006 copies/ml. Hb – 8.7 gm%, ESR – 125 mm/1hr (Elevated), USG abdomen, RFT & LFT were normal.

Histopathology showed Parakeratotic Hyperkeratosis covering pseudoepitheliomatous epidermal hyperplasia. Predominant Histiocytic Infiltrate with intracytoplasmic yeast like bodies in the Dermis.[Fig 3,4] Mucicarmine stain was used to differentiate from Cryptococcus. Tissue culture for fungus on Sabouraud's dextrose agar yielded typical cottony white buff colonies in 4 weeks [fig 7].

With itraconazole 100 mg BD for 8 weeks, the patient showed complete clearing of lesions. The treatment was continued for another 8 weeks after clearance along with change of ART to a Protease inhibitor based second line regimen.

Tables/Charts:

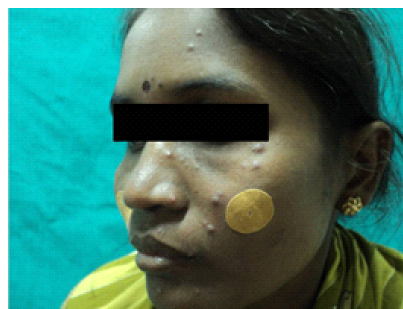

Fig 1: Multiple skin coloured to pearly papules with central umbilication over face

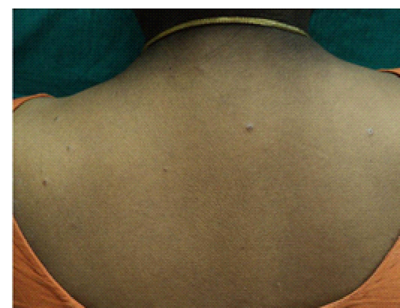

Fig 2: Multiple umbilicated papules over back.

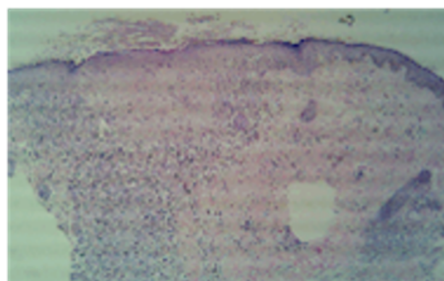

Fig 3: Histopathology showing histiocytic infiltrate in the dermis.

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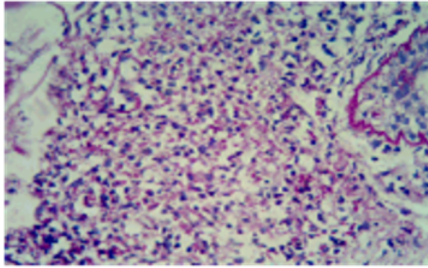

Fig 4: Histopathology showing intracytoplasmic inclusion bodies.

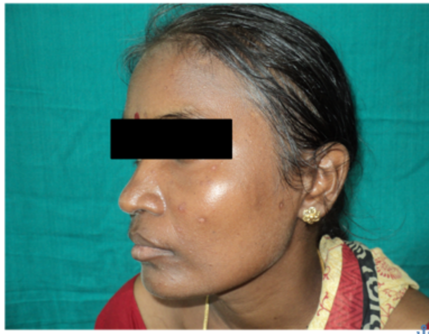

Fig 5: Clearance of lesions after four weeks of theatment with itraconazole.

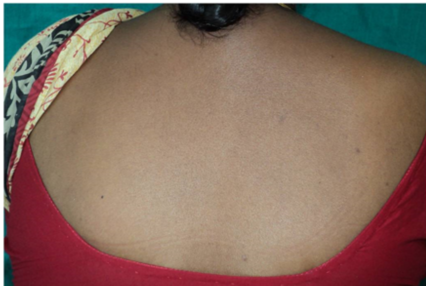

Fig 6: clearance of lesions over back after treatment.

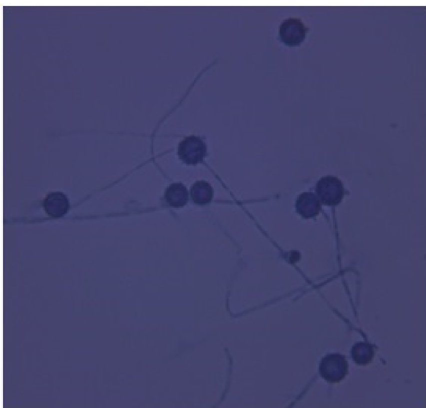

Fig 7: Culture showing growth at 2 weeks

Discussion:

H. capsulatum is an intracellular organism parasitizing the reticuloendothelial system and involving the spleen, liver, kidney, CNS and other organs. H. capsulatum exists as a saprophyte in nature and has been isolated from soil, particularly when contaminated with chicken feathers or droppings. Its spores are infectious to humans by the airborne route.

Histoplasma capsulatum is considered to be endemic in certain North Indian states like West Bengal, where a study showed a prevalence of skin positivity of 9.4% to histoplasmin antigen.[4] Panja and Sen first reported histoplasmosis from India in 1959.[5] There are a few sporadic case reports from South India as well.[6]

Cutaneous lesions in cases of disseminated histoplasmosis can be papule, pustule or plaque, ulcers, wart like and rarely may present as erythema nodosum. In AIDS patients the skin involvement in histoplasmosis should always be included in the differential diagnosis specially in patients with face and trunk papules associated with fever and hepatosplenomegaly. Skin and bone marrow cultures are the most reliable diagnostic methods.[7]

In our patient, the lesions showed complete clearance after Eight weeks of treatment with Itraconazole 100mg twice daily and change of ART to Protease Inhibitor based second line regimen.

Summary:

Various infectious agents are known to produce a plethora of clinical manifestations in the Immuno compromised. Histoplasmosis of the skin is relatively rare and is often missed. Untreated, it may lead to severe disease. The present case in presented for its rarity and to demonstrate that even in advance case of AIDS also a cure is possible for Histoplasmosis.

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