CASE REPORT

DISSEMINATED CUTANEOUS HISTOPLASMOSIS IN HIV PATIENT (MIMICKING- MOLLUSCUM CONTAGIOSUM & CRYPTOCOCOSIS)

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ABSTRACT: We report a case of cutaneous histoplasmosis in a 29 yrs. old male HIV positive patient who presented with cough, loss of weight and multiple raised lesions on face, upper limbs, trunk and genitalia of 1 month duration. Histology of skin lesions showed numerous PAS +ve intracellular fungal spores with a clear halo. He was treated with oral fluconazole.

KEYWORDS: HIV, Histoplasmosis, Umbilicated papules, Nodules.

INTRODUCTION: Histoplasmosis is caused by spores of dimorphic fungus, *Histoplasma capsulatum*. Most cases are mild or asymptomatic. It can occur as acute/progressive disorder, disseminated or as a chronic disease. Skin lesions may occur with all the forms or rarely as primary cutaneous histoplasmosis. The disseminated disease commonly occurs in the immunocompromised and is often rapidly fatal. Classic histoplasmosis is also called Darling's disease.¹ It is a deep mycotic infection caused by either *H. capsulatum* or *H. dubosii*. The spores of this saprophyte are found in soil and bird droppings.^{2,3} Pulmonary histoplasmosis and disseminated histoplasmosis involving the skin is very common in patients with AIDS. It can be a major cause of morbidity and mortality in these patients.⁴

CASE REPORT: A 29yr. old jawan, resident of Delhi, known case of AIDS on ART, presented with productive cough of 4 months duration and multiple papulonodular lesions on face, upper limbs, trunk of 1 month duration to outpatient department of Osmania general hospital, Hyderabad. The lesions increased in size over 1 month. He had history of unprotected extra marital exposure. He had H/O vomiting, dysphasia, pedal edema and neck rigidity. He was diagnosed of tuberculosis and was started on ART 3 months back.

Later patient developed skin colored papules first on the face later progressed to whole body in 2 months period. The lesions are asymptomatic. Few papules progressed to form nodules.

Fig. 1: & Fig. 2: Multiple umbilicated Papules & Nodules on the Face and Chest

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O/E: Multiple, discrete, mildly tender, umbilicated papules and nodules distributed over face, trunk, upper limbs and genitals. Few crusted lesions were present. There is no significant lymphadenopathy. Examination of oral cavity revealed candidiasis. Genital examination revealed herpetic lesions and balanoposthitis. Fig: 1, 2. Shows umbilicated papules and nodules over the face and neck.

Laboratory investigations revealed haemoglobin of 10.6gm/dl, total WBC of 5800/mm³, platelet count of 2.4 lakhs, total proteins-7.1gm/dl, Serum albumin-4.2gm/dl, Globulin-2.9gm/dl, S.calcium-8mg/dl, CD4 count of 31 cells/ml. VDRL was nonreactive. Random Blood Sugar, Renal Function Test, urine and stool examination were in normal limits. Sputum examination for Acid Fast Bacilli was negative. X-ray chest showed previous healed tuberculosis changes.

Skin biopsy specimen showed fungal spores of 2-4 μ m with a clear halo (pseudocapsule) amongst granulomatous infiltrate which establishes the diagnosis of Histoplasmosis. (Fig: 3, 4).

Fig. 3: & Fig. 4: H & E stain of nodule shows fungal spores (10x & 100x)

Fig. 5: PAS stain, Fig. 6: Gomori's methenamine silver stain

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Fungal spores of Histoplasmosis were confirmed by PAS staining which showed positivity (Fig: 5). While Cryptococcal spores are larger (8-12µm) and do not have a well demarcated clear halo.

Gommori's methenamine silver stain was positive (Fig: 6). Indian Ink staining for Cryptococcus was negative.

The patient was started on oral fluconazole 200mg BD, Inj. Amikacin 250mg BD, Inj. Monocef 1gm BD. ART and AKT were continued. Patient not shown much improvement. He was then switched over to IV itraconazole. After 2weeks patient showed improvement in the form of decrease in the size of skin lesions. However the patient succumbed to his disease 1 month later.

DISCUSSION: Histoplasmosis is an opportunistic fungal infection caused by inhalation of dimorphic fungus *Histoplasma capsulatum*. It occurs mainly in immunocompromised individuals, more so in HIV infected individuals and usually with a CD4 count <75 cells/ml. The disease is not very frequently reported from India except from northeastern Indian states like West Bengal, which is considered as the endemic region for histoplasmosis.^{5,6} Panja & Sen first reported histoplasmosis from India in 1959.⁷ There are few sporadic reports from South India.⁸ In the last 2 decades, histoplasmosis has been reported with increased frequency from other regions as well and most of the cases are associated with AIDS. Respiratory tract is the usual portal of entry for the organism and the lesions generally occur in the lungs. Oropharyngeal histoplasmosis is the commonest manifestation observed in the cases reported in the pre AIDS era from India.⁹ The disseminated disease is most commonly reported in immunocompromised individuals. Skin lesions are usually manifestations of disseminated histoplasmosis. Primary cutaneous histoplasmosis is very rare and can present with nodules, abscesses or molluscum like lesions.

In our case the skin lesions mimicked cryptococcosis and molluscum contagiosum which further added to the diagnostic dilemma. As molluscum body could not be expressed MC was ruled out. Cryptococcosis was ruled out due to absence of large spores and negative Indian ink stain. Histopathological features exhibiting 2-4µm spores with a clear halo was suggestive of histoplasmosis which was confirmed by Gommori's methenamine silver stain. The lesions responded to fluconazole.

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