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Case report *Medical research*

Cutaneous histoplasmosis - A case report

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ABSTRACT

Histoplasmosis, also known as Darling's disease or Tingo Maria fever, is caused by dimorphic fungus, *Histoplasma capsulatum*. In India, several cases of Histoplasmosis have been reported since 1954, but only a few cases could be diagnosed on cytology and histopathology. Confirmation of diagnosis can be done by fungal culture but it is rarely practiced. Here, we report a case of disseminated histoplasmosis with skin and oral lesions with generalized lymphadenopathy in a HIV positive female.

Keywords: Histoplasmosis, Darling's disease, Tingo Maria fever, *Histoplasma capsulatum*

INTRODUCTION

Histoplasmosis is a granulomatous fungal disease caused by *Histoplasma capsulatum*, which is found in soil rich in excreta of birds. This disease has variable clinical picture. Upper gastrointestinal tract lesions are chiefly associated with systemic disease, especially affecting patients with immunosuppression, as in human immunodeficiency virus infection.[1] Disseminated disease usually occurs in immuno compromised patients or in chronically ill patients. Although relatively uncommon, histoplasmosis has been reported in patients with chronic acquired immunodeficiency virus syndrome and oral lesions have varied presentations. [2] In setting of disseminated disease, oral lesions are present in 30-50% of the patients and may occur in almost every part of oral mucosa. The most common sites are the tongue, palate and buckle mucosa. In some cases, oral lesions appear to be the primary or the only manifestation of the disease. [3][4] Cutaneous lesions present in 6% of the cases.

CASE REPORT

36 years old housewife known to be HIV positive since two years presented with multiple erythematous papular eruptions over the face, neck and abdomen of one month duration. Pustules were having umbilication. The onset of eruptions was sudden and gradually progressive. The lesions were slightly painful. She also complained of oral ulcerations since

1 month. Family history revealed a HIV positive husband, who died 1 year back due to undiagnosed disease. On examination, she had multiple, discrete, pearly white papules and plaques, mildly tender, distributed over the face, neck, abdomen, back and oral cavity. They showed umbilication. Some of them showed spontaneous ulceration and crusting. She had generalized lymphadenopathy. The lymph nodes were discrete, firm, non-tender and mobile. Examination of respiratory, central nervous and cardiovascular systems did not reveal any abnormality. Other systemic examinations were unremarkable. Routine investigations revealed hemoglobin of 6.9 gm/dl, total count was 2800/mm^3, and differential count was neutrophils 60, lymphocytes 36, monocytes 2 and eosinophils 2. The erythrocyte sedimentation rate was 70 mm/h. Venereal Disease Research Laboratory (VDRL) test was non-reactive. Urine and stool examinations were within normal limits. Chest X-Ray was normal. Liver and renal function tests were normal. Abdominal Ultrasonography confirmed few small, discrete, enlarged Para-aortic lymph nodes. FNAC from right cervical lymph node was done. It revealed macrophages loaded with yeast forms of Histoplasma. A histopathological examination of skin biopsy taken from the lesion over the back revealed granulomatous infiltrate involving the dermis and the subcutaneous tissue, mainly consisting of macrophages and scattered giant cells. Small round -to-oval organisms with clear space were seen inside the macrophages. The histopathology was compatible with the diagnosis of Histoplasmosis.

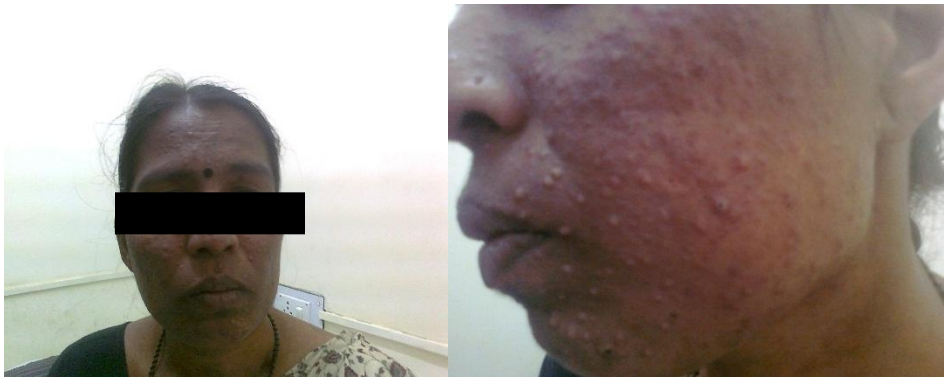

Fig. 1 & Fig. 2 - Discrete multiple papules seen on face and neck. Umbilication, Crusting and ulceration seen in few of the lesions

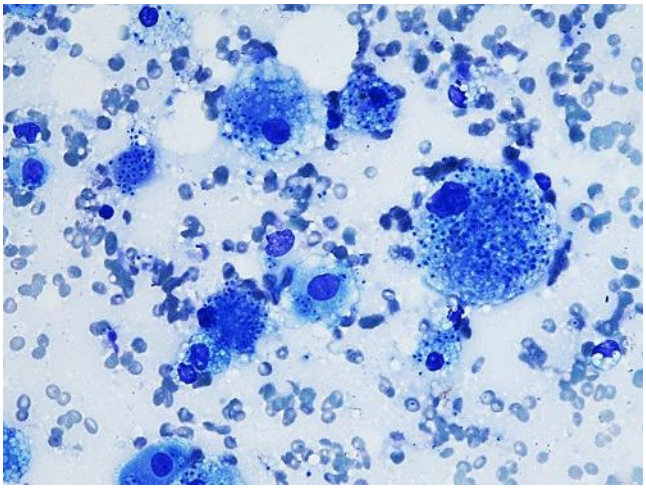

Fig. 3 - FNAC from right cervical lymph node revealed macrophages loaded with Yeast forms of Histoplasma

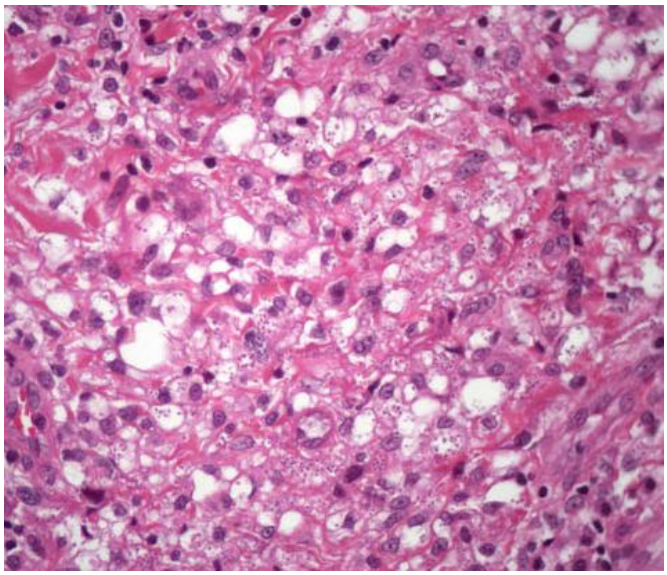

Fig. 4- 40 X View of skin biopsy showing macrophages loaded with small round-To- oval organisms (Histoplasma) with clear space

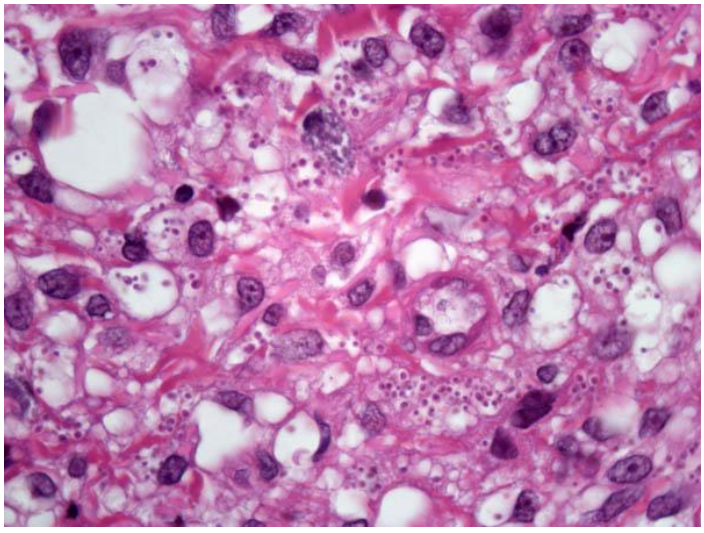

Fig. 5- 100 X view showing similar features

DISCUSSION

Histoplasmosis, also called as Darling's disease or Tingo Maria Fever, is caused by dimorphic fungus, H. capsulatum. Several cases have been reported from India since 1954, but only in some of them the diagnosis has been confirmed by the culture. Maximum cases of Histoplasmosis present with oral lesions. H. Capsulatum is an intracellular organism parasitizing the reticulo endothelial system and involving the spleen, liver, kidney, central nervous system and other organs. The organism 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 airborne route.[5] Histoplasmosis is caused by either H.capsulatam found in America and the tropics. The histopathology of the African form characteristically shows a giant cell granuloma containing yeast cells

of 10-15 microns in diameter are embedded in the histiocytes.[6][7] Histoplasmosis is rarely reported from India, perhaps on account of its varied clinical presentation and lack of awareness among dermatologists. Panja and Sen., first reported histoplasmosis from India in 1959.[8] H.capsulatum is considered to be endemic in certain East Indian states like West Bengal, where a study showed a prevalence of skin positivity of 9.4 % to histoplasmin antigen.[9] There are few sporadic case reports from South India as well.[10] Although several cases of histoplasmosis have been reported, cutaneous histoplasmosis presenting as molluscum contagiosum like lesions have been reported in very few patients. Generally, by the time Histoplasmosis affects HIV- positive patients, other opportunistic infections would have already occurred and the HIV status of the patient would have been known. In our case, the presentation was similar. It is important to include histoplasmosis in the differential diagnosis of ulcerated oral lesions in the immuno compromised patients. Although histoplasmosis is the most common endemic respiratory mycosis in United States,[11] it is not so common in India. We could not do fungal culture in our case as the patient was not willing to further investigate. Disseminated Histoplasmosis is classically described in immuno deficient patients, especially those with AIDS, patients that are at an early or an advanced age [12, 13] and [14] and those suffering from idiopathic CD_4 lymphocytopenia. In approximately 1/3 to 2/3 of the cases no identifiable risk factors are recognized in the dissemination of the illness. [15]

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