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PHOTOLETTER TO THE EDITOR

Disseminated histoplasmosis with initial oral manifestations

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Abstract

Histoplasmosis is a systemic fungal disease that may present in a variety of clinical manifestations. Involvment of the oral mucosa is very rare and may occur as part of disseminated histoplasmosis or as isolated involvement. We present a patient with disseminated histoplasmosis, in whom oral lesions were the initial manifestation of the disease. (*J Dermatol Case Rep*. 2013; 7(1): 25-26)

Key words:

AIDS, Fungal infection, HIV, mucous membrane, histoplasma, oral mucosa, tongue

Histoplasmosis is a systemic fungal disease that may present in a variety of clinical manifestations. Involvment of the oral mucosa is very rare and may occur as part of disseminated histoplasmosis or as isolated involvement.

A 48-year-old farmer from Madhya Pradesh, India, presented with painful eroded raised lesions in his oral cavity for three months and asymptomatic disseminated, skin-colored, raised cutaneous lesions for one month prior to admission. Ten days later, he developed fever and cough. On examination, the patient had submandibular and cervical lymphadenopathy. Bronchial breath sounds were heard in right mammary area with increased vocal resonance. Hepatosplenomegaly was also present. Mucocutaneous examination revealed numerous skin-colored to erythematous papules and small nodules 0.3 to 1.2 cm, present over the eyelids, forehead, pinnae, neck, forearms and abdomen (Fig. 1A). Few lesions showed central umbilication mimicking

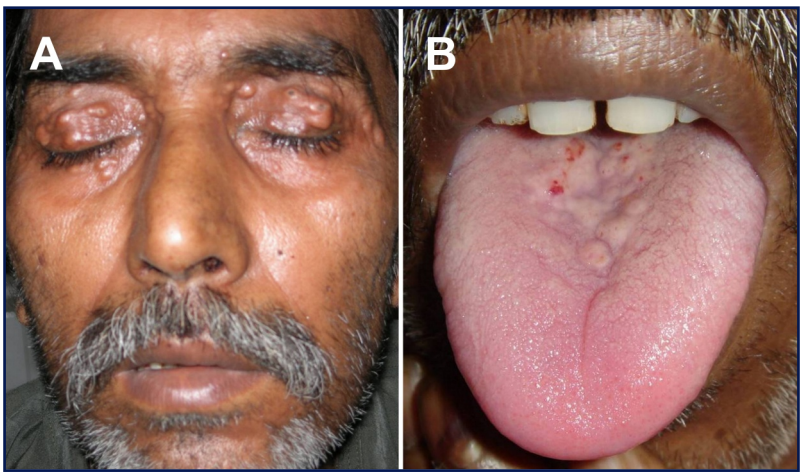

Figure 1

(A): Photograph of the face showing dome – shaped and typical umbilicated papules over the eyelids, glabella and eyebrows (published with patient's consent). (B): Photograph of the tongue showing atrophic glossitis with papules, few eroded, over the dorsum of the tongue.

molluscum contagiosum. The oral cavity showed multiple papules, few of which were eroded and had tiny bleeding points. (Fig. 1B) The hard palate also showed an infiltrated plaque. Multiple ulcers and crusts were present in the nasal cavity.

Laboratory examinations showed anemia (Hb-6.5 g/dL) and low white blood cell count (WBC-2500 x 109/L). Chest X-ray demonstrated an area of opacification in the right lung. HIV-1 antibody testing was reactive by ELISA. CD4 cell count was 49 cells/mm^3 and CD8-517 cells/mm^3. The CD4:CD8 ratio was 0.09.

Fine needle aspiration cytology from a submandibular lymph node showed many intra and extra-cellular tiny oval yeast forms (Fig, 2A). An oral biopsy showed numerous round to oval 2-4 µm yeasts with chromatin clumped at periphery in an arc like manner and surrounded by clear spaces suggestive of *Histoplasma capsulatum* organisms (Fig. 2B). The patient was thus diagnosed as acquired immunodeficiency state (AIDS) with disseminated histoplasmosis and oral involvement. He was started on highly active antiretroviral therapy (stavudine, lamivudine, and nevirapine) and intravenous amphotericin B (1 mg/kg/d). He initially responded well, with a decrease in size and number of mucocutaneous lesions, but eventually succumbed to the systemic disease on the 10th day of treatment.

Histoplasmosis is rare in India, with relatively more cases reported from the north-east states. The patient did not belong to an endemic state. Panja and Sen first reported histoplasmosis in India in 1954.[1] Around 50 cases have been reported since then. Most of the cases of disseminated histoplasmosis (DH) are associated with HIV infection, with CD4 counts below 50 cells/mm^3.

Mucocutaneous involvement occurs in 10-20% of cases of DH and is a very important diagnostic clue. Characteristic skin lesions include umbilicated nodules, papules, plaques and ulcers. Oral involvement is rare and may occur in association with DH or as isolated disease.[2-4] Commonly involved sites are tongue, hard and soft palate, buccal mucosa, gingiva and lips. Oral lesions can be papular, nodular, ulcerative, vegetative, granulomatous, furunculoid or plaque-like. Reddy *et al* reported that all the patients who presented with oral lesions, subsequently developed disseminated histoplasmosis, hence emphasizing the importance of monitoring of such patients.[5] A similar phenomenon was seen in our patient too.

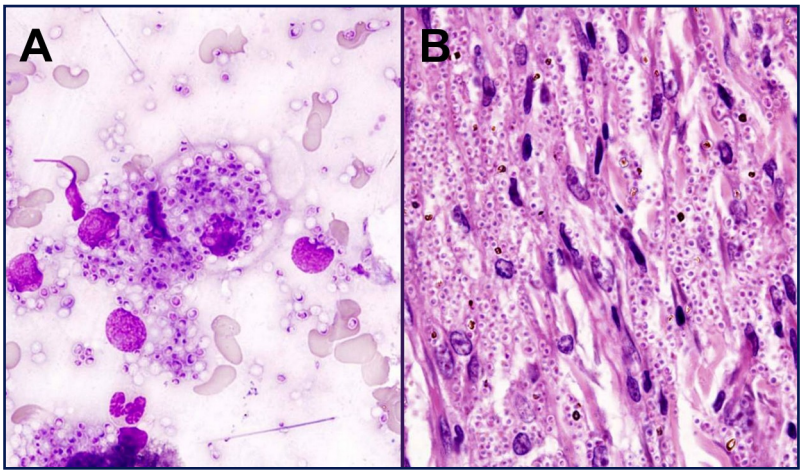

Figure 2

(A): Fine needle aspiration cytology of submandibular lymph node showing numerous intra- and extra-cellular tiny oval yeast forms of Histoplasma capsulatum. (B): Hematoxylin & Eosin stained section of oral lesion (400x magnification) showing a monomorphous mononuclear infiltrate throughout dermis. The field is full of intra- and extra-cellular round to ovoid 2-4 µm yeast cells with peripheral clear spaces, characteristic of Histoplasma capsulatum.

DH is treated with amphotericin (1 mg/kg/d for 2 weeks) or itraconazole (400 mg/d for 10 weeks) as inducing agents followed by itraconazole (200-400 mg/d) as maintenance.

With the current pandemic of AIDS, histoplasmosis should always be kept in mind as a differential diagnosis in immunocompromised patients with skin and oral lesions. Other differentials include cryptococcosis, blastomycosis, penicilliosis and sporotrichosis.

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