Histoplasmosis affecting oral mucosa in an immunocompetent patient: A rarity in non-disseminated disease

Sir,

Histoplasmosis is a systemic mycosis caused by dimorphic fungus *Histoplasma capsulatum*. It is predominantly seen in North, Central and Latin America, Africa, and in tropical and temperate rural areas. This condition is transmitted by inhalation of dust particles from the soil, contaminated with bat or bird droppings containing infective fungal spores. Immunocompetent persons rarely present with isolated oral mucosal lesionsthough it can be a manifestation of disseminateddisease.Patientswithacquiredimmunodeficiency such as users of corticosteroid and immunosuppressants, elderly, pregnant or human immunodeficiency virus infection may present with more severe and generalised form.[1] Here, we report a case of histoplasmosis limited to the oral cavity in an immunocompetent patient.

A 40-year-old non-smoker female presented to our OPD (Institute of Post-Graduate Medical Education and Research and SSKM Hospital) with multiple painless nodules on the buccal mucosa for last four months. The lesions were initially papular and gradually progressed to nodules. She denied any past history of chronic obstructive pulmonary disease, asthma or dental prosthesis implant. Physical examination revealed four nodules, sized 1–1.5 cm, on the right buccal mucosa [Figure 1]. The nodules were pinkish-white in colour, non-tender, non-ulcerated without any associated bleeding. Cutaneous and lymph node examination were unremarkable without any systemic complaint. Chest X-ray and serology for HIV-1, 2 were non-contributory. Routine hematology revealed mild eosinophilia (total leucocyte count 13,500/mm^3 with eosinophil 45%). Lesional oral biopsy showed numerous small oval-amphophilic yeast-like bodies within histiocytes and macrophages (shown by black arrow) [Figure 2]. Gomori's methenamine-silver stain showed small black yeasts with narrow-based budding and some in clusters (shown by upper black arrow) with surrounding clear halo suggesting capsule (shown by lower black arrow) inside macrophages [Figure 3]. We prescribed oral itraconazole 200 mg daily and notedsignificant improvement at 6-week follow-up [Figure 4].

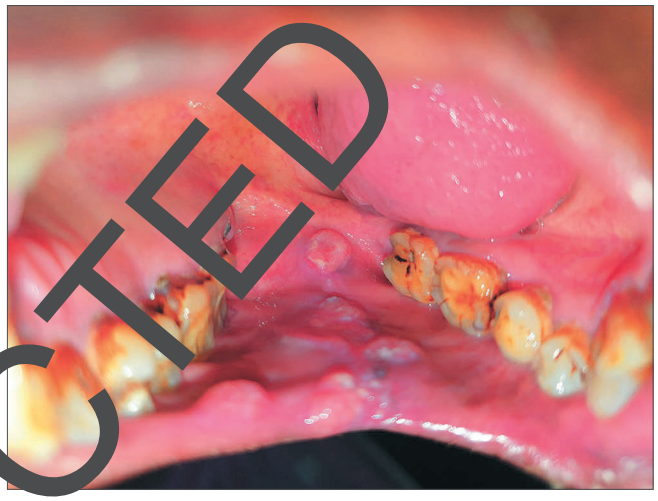

Figure 1: Non-ulcerated nodules 1–1.5 cm in size on the right buccal mucosa

Histoplasmosis is a systemic mycoses with predilection for hot and humid climates. In general, macrophages play a fungicidal role by phagocytising *Histoplasma capsulatum* to control the disease in immunocompetenthosts.[2] Usually oral lesions indicate disseminated disease and can affect any area of the oral cavity.[3] The common sites involved include tongue, palate, buccal mucosa, gingivae and pharynx. Oral histoplasmosis lesions generally present as multiple painful ulcers or granular ulcerations as well as granulomatous, plaque like or verrucous growths.[4] Deep ulcers are characterised by surrounding infiltrative edges with pseudomembrane, and erythematous irregular, hardened nodular lesions along with local lymphadenopathy which can simulate other infectious diseases or malignant tumours.[4] Infection

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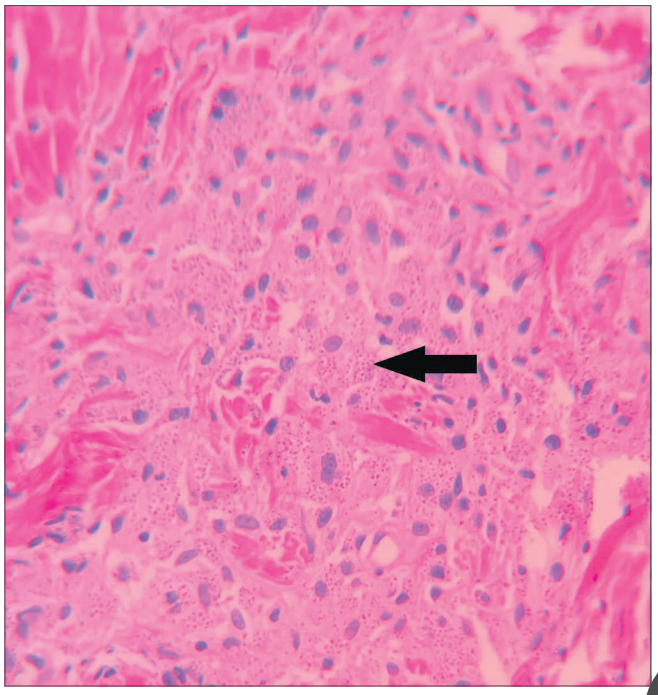

Figure 2: Numerous small oval-shaped amphophilic yeast-like bodies within histiocytes and macrophages (black arrow) (hematoxylin-eosin stain, ×40)

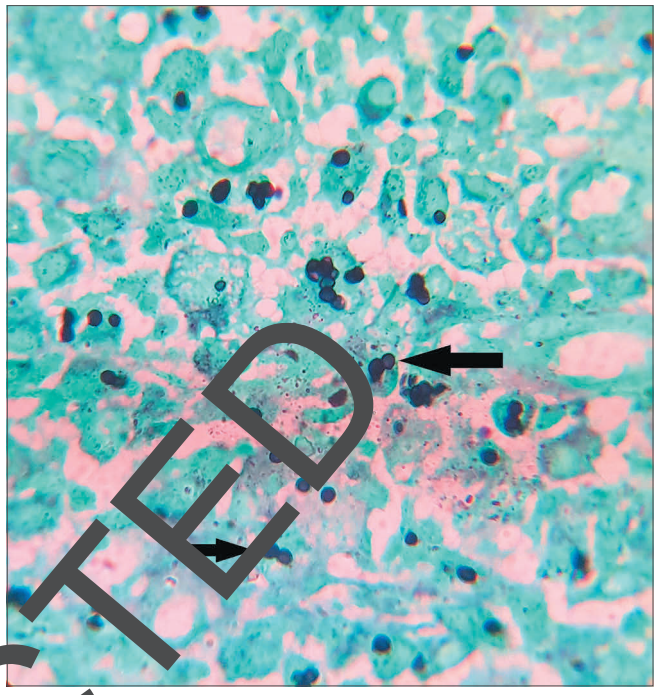

Figure 3: Small black yeasts with narrow-based budding and some in clusters (upper black arrow) with surrounding clear halo suggesting capsule (lower black arrow) in macrophages (Gomori's methenamine-silver stain, ×100)

Figure 4: Significant improvement after oral itraconazole

is usually asymptomatic in healthy individuals unless a large inoculum has been inhaled.[5] In immunocompetent individuals, cell-mediated immunity plays a key role in resolving acute infection. MemoryT lymphocytes secrete tumour necrosis factor alpha and interferon gamma which activate macrophages to inhibit its growth and prevent reinfection.[6] Differential diagnoses include squamous cell carcinoma, tuberculosis, deep fungal infections, oral lesions in Crohn's disease, necrotising sialometaplasia of the palate and traumatic ulcers.[3] This disease is endemic in eastern part of India with most cases reported from Gangetic West Bengal, consistent with our case. [7] Our report is unique as an immunocompetent patient presented with isolated oral manifestation with nodular morphology without lymphadenopathy and systemic involvement. The early and precise diagnosis of histoplasmosis is crucial for its appropriate management.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

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