Tongue Histoplasmosis Mimicking Malignancy

Ajay Garg*, Raman Wadhera**, SP Gulati***, Rajnish Kalra†, Sunita Singh‡

Abstract

A 42 year old male presented with progressive difficulty in swallowing for the past 6 months. Oral examination revealed ulcer on right dorsum of tongue, which was mistaken for malignancy. Histopathology of incision biopsy specimen diagnosed it as histoplasmosis. The patient was put on oral itraconazole therapy and responded well to the treatment.

Introduction

Histoplasmosis, a chronic granulomatous fungal infection, also known as Darling’s disease, named after Darling who first described this clinical entity well in details.1 Histoplasmosis is endemic in central states of United States principally Ohio and Mississippi river valleys. In Indian literature first case of histoplasmosis was reported by Panja and Sen in 1954.2 In Indian subcontinent eastern states like west Bengal are considered endemic. Few cases have also been reported from southern India.3

Mucosal lesions of upper aerodigestive tract by histoplasmosis are not a common phenomenon. Moreover these lesions also mimic carcinoma, so a high index of suspicion must be kept in non endemic areas to reach at diagnosis of histoplasmosis. An immunocompetent individual with suspected tongue base malignancy that eventually diagnosed as histoplasmosis is reported here.

Case Report

A 42 years old male presented with complaints of progressive difficulty in swallowing for the past 6 months. There was no history of fever, prostration, cough, weight loss or bleeding from the mouth. He was chronic smoker for the last 20 years using approximately 2 packs per day. On examination a tender 2 X 2 cm ulcer with heaped up edges was noticed on the right dorsum of tongue (Fig. 1). Indirect laryngoscopy and lymph node examination was unremarkable. As patient had history of chronic smoking, ulcer seemed to be a malignant one. Incisional biopsy taken and submitted for histopathology revealed stratified squamous epithelium covered soft tissue. Subepithelial tissue showed large number of foamy macrophages filled with yeasts of fungii (Fig. 2). Gomori’s methenamine silver stain was positive. Diagnosis of histoplasmosis was kept most favourable. After which patient was investigated for any factor in his body compromising his immunity, but all investigations was with in normal limits. X ray chest didn’t reveal any sign of histoplasmosis in lungs and mediastinum. Oral itraconazole therapy was started and followed up. On 3 month follow up ulcer had disappeared completely (Fig. 3) and patient was relieved of symptoms.

Discussion

Histoplasmosis is caused by histoplasma capsulatum, a dimorphic fungus which exists in soil in the mycelial form but converts in yeast when exposed to the higher temperatures of the human body. Soil from chicken houses or from areas contaminated by bat or bird faeces is especially rich in histoplasma capsulatum organism.4

Human and animal infection is caused by inhalation of fungus in dust. Size of inoculum and immune status of the individual determine degree of infection and clinical presentation. Histoplasmosis infections have been classified in two categories pulmonary histoplasmosis and disseminated histoplasmosis. Pulmonary histoplasmosis occurs in patient with normal cellular immune mechanism while disseminated form manifests in patients whose cellular immune mechanism is compromised either by intercurrent malignancy, long term corticosteroids therapy, immunosuppressant drugs, or AIDS infection, thus incapable of killing the fungus.5

Head and neck manifestation of histoplasmosis occur primarily in patients with disseminated diseases and can be the only presenting symptom. Chronic disseminated disease has minimal systemic involvement and a tendency to develop more destructive and focal lesions and is characterised by mucosal lesions of upper aerodigestive tract. Oral involvement is seen in 30% to 50% cases; tongue, palate, and buccal mucosa being the frequently involved sites. Very rarely local oropharyngeal and laryngeal lesions are the primary and the only presenting sign as documented in our case.6 Clinically mucosal histoplasmotic lesions are seen as firm, painful ulcers with heaped-up edges suggesting malignancy. Proliferating lesions with a verrucous or plaque like appearance may be seen in the early stages: however, central ulceration occurs in untreated lesions. Laryngeal involvement has characteristic anterior located lesions in comparison to tuberculosis where posterior larynx is commonly involved. Sore throat, painful mastication, hoarseness, gingival irritation and dysphagia are common presenting complaints of oropharyngeal histoplasmosis.6 Constitutional symptoms like fever, night sweats, and fatigue are relatively uncommon. The histoplasmotic lesions in the oral cavity, pharynx and

Fig. 1 : Ulcer measuring 2 X 2 with heaped up edges on the right dorsum of tongue.

*Professor, Senior Resident, ‡Senior Professor and Head, †Professor, Departments of Otorhinolaryngology, Pathology, PT. BDS, PGIMS, Rohtak, India
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larynx clinically resemble malignancy and rarely tuberculosis as incidence of primary TB of tongue presenting as ulcer is 0.2% of all cases of TB. Apart from these, other conditions closely mimicking with histoplasmosis are sarcoidosis and blastomycosis. Cutaneous and mucocutaneous involvement in blastomycosis is far more common, while sarcoidosis lesions are ruled on clinical and epidemiological grounds.

The definitive diagnosis of disseminated disease depends on culture or biopsy identification of the organisms within the extrapulmonary tissues. Gomori’s methenamine silver stain and Wrights stain are preferred over haematoxylin and eosin (Hand E) stain to detect fungii as capsule of yeast is a polysaccharide and stains poorly with Hand E. Centre and base of the ulcer predominates with heavily laden parasitized macrophages as compared to the marginal areas. Microscopically histoplasmosis lesions may demonstrate tuberculoid granulomas as central caseation necrosis making it difficult to differentiate from tubercular lesions, but usually are absent in disseminated disease. If present represents mildest form of disease with low grade infection and normal immune system of the individual. Peripheral blood film and bone marrow aspiration are rarely positive in chronic disseminated form of disease.

Standard drug regimen for chronic disseminated histoplasmosis had been intravenous amphoterecin B. In recent years oral ketoconazole and itraconazole therapy have been shown to be effective in chronic disseminated form of disease. These newer azoles are associated with lesser side effects.

References
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Reflex Sympathetic Dystrophy following Pacemaker Insertion

Vikram A Londhey*, Nishant Singh**, Seema Kini*

Abstract
A 55 year old male presented with pain and swelling over dorsum of right hand and small joints, and loss of sweating over right hand since two months. He was a known case of mitral valve prolapse (MVP) with mitral regurgitation and complete heart block for which pacemaker was implanted 1 year back. Bilateral wrist X-ray was suggestive of pronounced demineralization (osteopenia) in the right hand. He was thus diagnosed to have reflex sympathetic dystrophy syndrome (RSDS) considered to be induced by pacemaker insertion. After treatment with amitryptiline and indomethacin his symptoms dramatically improved.

Introduction
Reflex sympathetic dystrophy syndrome (RSDS) is an uncommon entity occuring in approximately 1-15% of