

## CASE REPORT

# Oropharyngeal Tuberculosis—Mimicking Oral Cavity Carcinoma

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## ABSTRACT

Tuberculosis still represents a major health problem in developing countries like India. In majority of patients the infectious process is contained but very rarely infection can spread to sites like oral cavity where it mimicks carcinoma and can put clinician in jeopardy. A case of such a rare presentation of oropharyngeal tuberculosis is presented.

**Keywords:** Tuberculosis, Oropharyngeal, Carcinoma.

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## INTRODUCTION

Tuberculosis (TB) is an infectious granulomatous disease caused mainly by mycobacterium TB, an acid-fast bacillus that is transmitted primarily via the respiratory route.<sup>1</sup> Tuberculosis still represents a major public health problem and is quite widespread in countries like India. In most patients the infection does not spread and, as host immunity develops, the caseous foci in the lung and hilar nodes undergo healing by fibrosis and eventually calcification. In a minority of patients, progressive pulmonary disease spreads to other organ systems through self inoculation via infected sputum, blood and lymphatic system, establishing the secondary form of TB.<sup>2</sup> Tuberculosis of oral cavity is unusual because of protective mechanism in the upper respiratory tract. Saliva, containing saprophytes with phagocytic property and epithelium of oral cavity, inhibit growth and multiplication of TB bacilli. Any breach in the mucosa due to chronic irritation or inflammation can predispose to tuberculosis.<sup>3</sup> At the time of presentation, it usually mimics malignancy presenting mostly with odynophagia or dysphagia and ulceroproliferative lesions; thus causing problems in diagnosis. Isolated pharyngeal lesions affecting the nasopharynx, palatine tonsil or posterior oropharyngeal

wall are acquired by inhalation with harboring of disease in Waldeyer's ring.<sup>4</sup> Extrapulmonary localizations of TB are rare, commonly encountered in patients with poor host reaction due to chronic alcoholism, HIV infection.<sup>5</sup>

## CASE REPORT

Patient Brijpal 45-year-old male presented to OPD with chief complaint of dysphagia and odynophagia since 1 month. Patient also complaint of on and off fever since 1 month. Patient was a chronic smoker since 20 years consuming one packet of bidi everyday (20 pack years), no history of any other systemic illness. On examination of oral cavity, indurated mucosa was present on buccal mucosa both sides and posterior pharyngeal wall and externally involving lower lip and angle of mouth (Figs 1A to C). On performing an indirect laryngoscopy, pale white arytenoids were present but both vocal cords were mobile. There was no cervical lymphadenopathy. Considering the history and examination findings, oropharyngeal carcinoma was the obvious diagnosis that came to mind as age and long history of substance abuse supported the examination findings. Routine investigations like hemogram, liver function test (LFT), kidney function test (KFT) were carried out and patient was called for biopsy from buccal mucosa thinking of the lesion as malignancy. But the biopsy report that came was to surprise showing many epitheloid granulomas along with focal areas of caseous necrosis. On further staining for acid fast bacilli (AFB), the stain was positive. Histological features were strongly suggestive of TB. On further investigation for tuberculosis, chest X-ray (CXR), montaux test and sputum for AFB were carried out. CXR showed multiple confluent air opacities in the bilateral lung fields, finding suggestive of pulmonary TB (Fig. 2). Although sputum for AFB was negative but the montaux test had 20 mm induration. Blood investigations were as follows hemogram-12.5, TLC-17490, DLC-87, 9, 3, 1 and ESR was 30 mm. All findings were suggestive of oropharyngeal TB so the patient was referred to nearby NDTB centre and was started on anti-tuberculosis treatment (ATT).

## DISCUSSION

Oral and oropharyngeal manifestations of TB are uncommon, observed only in 0.05 to 5% of patients with TB, is often difficult to diagnose and it should be an important

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**Figs 1A to C:** Oropharyngeal lesion of the patient



**Fig. 2:** Chest X-ray posteroanterior view (C × P-Pa) of the patient showing multiple confluent opacities in bilateral lung fields

consideration in the differential diagnosis of lesions that appear in the oral cavity. The secondary form is more frequent in middle-aged and older persons and involves mainly the tongue, but involvement of pharynx is quite a rare condition. Pulmonary tuberculosis is very common in countries like India but we rarely encounter oropharyngeal TB. Normally there are various barriers in oral cavity like saliva which prevent the spread of infection but any breach in any of these barriers can lead to TB.

Although TB of oropharynx is relatively rare, with the increasing incidence of TB, it must be considered in the differential diagnosis of atypical ulcerative lesions of the mouth and oropharynx. This is especially important considering difficult clinical diagnosis because TB can mimic a variety of other conditions including reactive and traumatic lesions, malignant tumors, especially squamous cell carcinoma and lymphoma, deep fungal infections including paracoccidioidomycosis and histoplasmosis, and oral manifestations of systemic disease such as sarcoidosis and Wegener's.

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