



## Tuberculosis of Tongue: A Case Report

Authors

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### Abstract

*Tuberculosis was one of the most prevalent diseases in developing countries more than developed countries. Although incidence of tuberculosis is gradually decreasing due to effective treatment regimen, there are still significant cases reporting here and there. Most common site being lungs, extra-pulmonary sites are not of less significance. Sometimes infection of extra-pulmonary sites can be seen even without any primary in the lung. Hence it is important to suspect any non-healing lesion in any part of the upper aero-digestive tract as a possibility of being tuberculosis. Here, we present a non-healing lesion on the tongue of a 52 year old male presented to our hospital, initially suspected as a cancerous growth but was ultimately diagnosed as having tuberculosis.*

### Introduction

Tuberculosis is an infectious disease caused mostly by Mycobacterium tuberculosis. The relative prevalence is high in developing countries rather than developed ones. Lungs are the most commonly affected site but extra-pulmonary sites are not less common. Even sometimes, there are chances of tuberculous lesions being found in extra-pulmonary sites without any primary in the lung.<sup>1</sup> Most common sites in the upper aero-digestive tract include cervical lymph nodes, larynx, tonsils, salivary glands, middle ear, nose and nasopharynx.<sup>2</sup> So, it is important to suspect the possibility of tuberculosis while evaluating any non-healing lesion of upper aero-digestive tract.

Here we present a case where tuberculosis of tongue was incidentally found on biopsy of a non-healing ulcer on tongue which was initially suspected as a malignant growth.

### Case Report

A 52 year old male patient presented to OPD of Head and Neck Oncology Department in BBCI hospital at Guwahati with chief complaints of a painless ulcer on the tongue since 3 months (figure 1). It was of insidious onset, gradually progressive, not associated with burning sensation or difficulty in swallowing. No history of trauma, fever, night sweats, cough, hoarseness, decreased appetite or weight loss was given. No similar complaints were present in the past. He was a chronic tobacco chewer since last 15 years, occasional alcoholic and non-smoker. He took over-the-counter medication but the lesion did not subside. On examination, there was a 1cm x 1cm lesion on the posterior dorsal aspect of the tongue in the midline (figure 1). It was non-tender, irregularly bordered, firm in consistency, non-indurated and didn't bleed on touch. Oral hygiene was very poor. No cervical lymph nodes were

palpable. Respiratory system examination was normal.

A traumatic ulcer cannot be a possibility as the lesion is found in the midline. Even a malignancy was not suspected as it is non-indurated, painless and didn't bleed on touch. A tuberculous lesion even can't be confirmed as the lungs are normal. Keeping all these possibilities in mind, the patient was subjected to further evaluation.

Haematological parameters were normal. Serum biochemistry and renal function tests were normal. Chest X-ray was normal. Retroviral tests were negative. A sample was taken from the margin of the lesion and sent for histopathology which showed granulomatous inflammation with langhans cells, epithelioid cells and caseous necrotic foci confirming it as a tuberculous lesion. Taking a clear margin, the lesion was excised under general anaesthesia (figure 2) and the patient was discharged with anti-tubercular treatment for 6 months. 2 month follow-up showed no signs of any lesion and the wound healed well. Further 4 month course was suggested to follow.



**Figure 1**



**Figure 2**

### Discussion

Tuberculosis is one of the most prevalent diseases in India. The prevalence of it is more in the states of northeast compared to other parts of the country.<sup>3</sup> Tuberculosis of oral cavity has an incidence of 0.5-1.5%.<sup>4</sup> Very low incidence may be due to saliva cleaning the oral mucosa continuously and also the resistance offered by the oral mucosal epithelium lining. Risk factors mainly include mucosal trauma, smoking and poor hygiene. Majority of the infected people are asymptomatic. Oral lesions of tuberculosis may present as ulcer, nodule, fissure, tuberculoma or granuloma.<sup>5</sup> In head and neck, cervical lymph nodes constitute 95% of extra-pulmonary sites whereas all other constitute less than 1% each.<sup>6</sup> Diagnosis of extra-pulmonary tuberculosis can be done by mycobacterial stain and culture, measurement of adenosine deaminase (ADA), tissue biopsy, polymerase chain reaction (PCR), and immunologic tuberculin skin test and radio-imaging.<sup>2</sup>

Although tuberculosis of oral cavity is rare, it should be considered as one of the differential diagnoses in case of a non-healing ulcer. Among

the different sites of occurrence in oral cavity, tongue is the most common and other sites include gums, lips, buccal mucosa, palate, tonsils. Other differential diagnoses include malignancy and trauma but in our patient, there was no induration, pain, bleeding or sharp teeth and even the location of the ulcer in the midline makes sure that trauma cannot be a possibility. Even the patient is not using any denture. Histopathology confirmed the diagnosis as a tuberculous lesion. Sometimes, even histopathological confusion may exist in differentiating the granulomatous inflammation of tuberculosis from that of Wegener's granuloma, sarcoidosis and foreign body reactions.<sup>7</sup>

Treatment of tuberculosis is mainly anti-tubercular therapy. Prognosis is excellent. Follow-up after 2 months of initiating anti-tubercular therapy in our patient has shown almost complete healing and no sites of recurrence. Education of other family members is also equally important to contain the spread of the disease through droplet form.

#### Conflicts of Interest: None

#### Conclusion

Any non-healing ulcer in the upper aero-digestive tract should be suspected of having tuberculosis. Prognosis is good and depends on the prompt diagnosis and swift management.

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