# Ulcer in the Disguise-A Rare Case Report

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## Abstract

Tuberculosis (Tb) is an infectious disease which usually affects the pulmonary system and sometimes occurs in other body organs including the oral cavity. The present article is on a case study of a 25-year female diagnosed with TB osteomyelitis which presented a non-healing and non-painful ulcer both intra and extra orally. The diagnosis was confirmed based on histopathology. The patient underwent anti-TB therapy and her oral and systemic conditions improved rapidly. Although oral manifestations of tuberculosis are rare, clinicians should include them in the differential diagnosis of various types of oral ulcers. An early diagnosis with prompt treatment can prevent complications and potential contaminations. Tuberculosis of the oral cavity is rare and have become a forgotten diagnosis of oral lesions. Dental practitioners need to be aware that TB may occur in the oral cavity and should be considered in the differential diagnosis of any ulcerated, indurated non-healing lesion of the oral cavity, especially in lower socioeconomic groups. Besides, efforts should be made to control oral TB by early detection and referral of the patient to a physician for proper management. Clinicians are to be careful about ulcers in disguise.

***Keywords:*** *Tuberculosis, ulcer, Langhans cells, epithelioid cells*

## Introduction

Tuberculosis (TB) is a transmissible chronic granulomatous disease caused by Mycobacterium tuberculosis.[1] India alone accounts for nearly one-fifth of the global burden of tuberculosis.[2]The incidence of TB in underdeveloped countries is increasing. Depending on the organ system involved, tuberculosis is classified clinically as pulmonary and extra-pulmonary. Pulmonary tuberculosis remains the most common form of the disease. Extra-pulmonary involvement in tuberculosis is uncommon, accounting for approximately 10% to 15% of all the patients.[7] TB mainly affects the lungs but also affects intestine, meninges, bones, joints, lymph glands, skin and other tissues of the body.[3] Oral tuberculosis lesions are rare and it is estimated that only 0.05- 5% of total tuberculosis cases may be presented with oral manifestations.[4] This article aims to report a case of primary tuberculosis and to emphasize the importance of early diagnosis with various diagnostic tests to lessen the risk of exposure to an infected patient's contact.

## Case Report

A 25-year-old female reported to the department of oral medicine with a chief complaint of ulcer in the right cheek as well as in right buccal mucosa for two months. On examination, there was an ulcer extra orally in the right cheek (Fig 1a&b) measuring about 4x3 cm. Intraorally there was a non-healing ulcer concerning carious 46 teeth in the buccal mucosa of size 2x1.5 cm (Fig 2). It was painless mild tender on palpation. A single lymph node was palpable and enlarged. An intraoral radiograph revealed radiolucency concerning 46. OPG revealed severe bone loss. (Fig 3a&3b). Her detailed medical history revealed that she was diagnosed for TB and had weight loss and was under medication 6 months back. There was no other abnormality elsewhere in the oral cavity. Based upon the clinical examination, a differential diagnosis included aphthous ulcer, traumatic ulcer, infections (bacterial, fungal and viral), drug reaction and malignancy, including primary squamous cell carcinoma and lymphoma. Since there was no history of any kind of trauma and the ulcers were

chronic, painless and non-recurrent, the possibility of traumatic or aphthous ulcers was ruled out. Moreover, the patient was not on any systemic medication; thus the possibility of an ulcer due to drug reaction was also ruled out. An incisional biopsy is done. Histopathologic examination revealed an ulcerated stratified squamous surface epithelium in association with fibrovascular connective tissue. The connective tissue exhibited granulomatous inflammation containing epithelioid cells, Langhans giant cells and lymphocytic infiltrate with areas of necrosis. (Fig 4a&4b).

This raised the possibility of granulomatous infection, including tuberculosis. Manteaux test was positive. The blood test was within normal limits.ESR was raised. Based on the clinical, radiological and Histopathological findings the case was diagnosed as TB osteomyelitis.

**Figure 1a. Extraoral Examination**

**Fig1b Extraoral Examination**

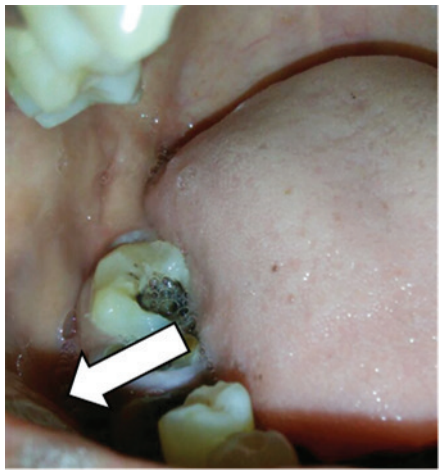

**Fig 2. Intraoral examination**


**Fig 3a OPG examination**

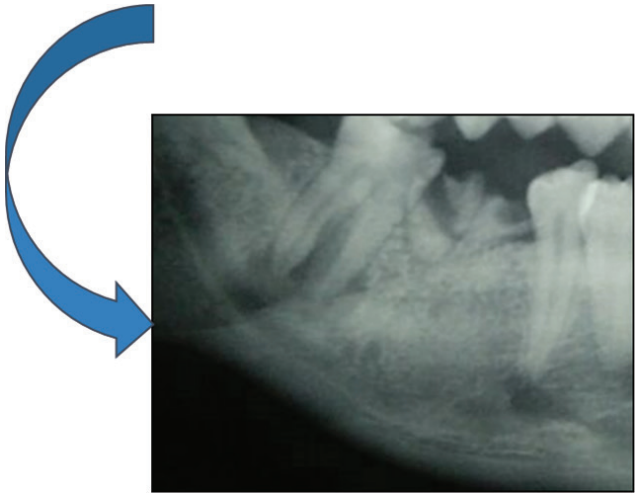

**Fig 3b OPG revealed a severe bone loss**

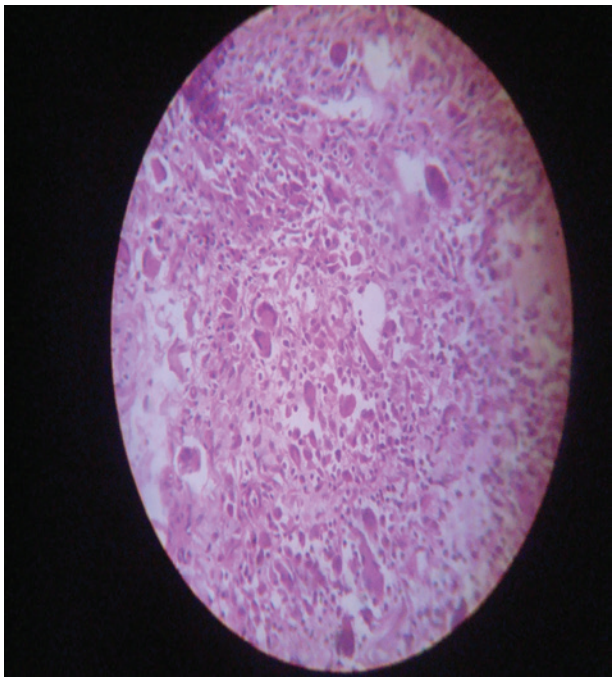

**Fig 4a (Langhans cells)**

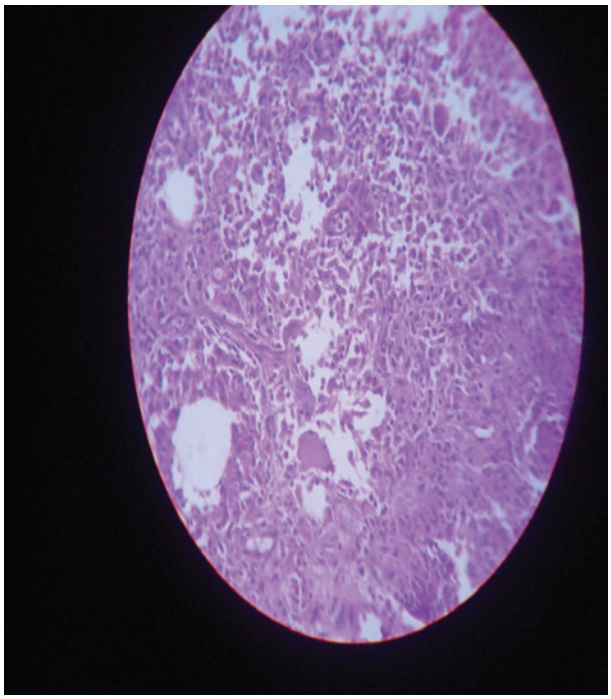

**Fig 4b(Epitheloid cells)**

Discussion

Although the manifestation of TB has a rare occurrence nowadays it seems to be more chronic as a consequence of the outbreak and emergence of drug resistance TB(MDR &XDR).Global Burden: WHO(2013):TB incidence :8.6million rel death:1.3million.

Oral TB lesions Are of two types primary and secondary. Primary ulcers are uncommon, seen more in young patients, presents itself as a single painless ulcer with an enlarged lymph node. A secondary ulcer is more commonly seen in middle-aged and elderly persons, presents as a single painful ulcer with an irregular border, indurated and associated with pulmonary diseases. The various forms of TB ulcer are ulcer, nodule, Tuberculoma, TB Granuloma and TB osteomyelitis. Clinically difficult to differentiate oral TB from Primary Syphilis, Deep fungal disease and Squamous cell Carcinoma so Biopsy is confirmatory.[5]


**Figure 5. Diagnosis of TB**

## Conclusion

Tuberculosis of the oral cavity is rare and have become a forgotten diagnosis of oral lesions. Dental practitioners need to be aware that TB may occur in the oral cavity and should be considered in the differential diagnosis of any ulcerated, indurated non-healing lesion of the oral cavity, especially in lower socioeconomic groups. Also, efforts should be made to control oral TB by early detection and referral of the patient to a physician for proper management. Clinicians are to be

careful about ulcers in disguise.

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**Conflict of Interest:** The author declares that there was no conflict of interest.

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