

## Case Report

### A Rare case of Tubercular Gingivitis – Case Report

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#### Abstract

Tuberculosis is a granulomatous infectious disease caused by infection of mycobacterium tuberculosis. It is a major cause of death in developing countries. Primary gingival tuberculosis is extremely rare condition. TB bacilli can spread hematogenously to other parts of the body and this also includes mandible or maxilla. Oral lesions occur usually secondary to another site of primary lesion. This article reports a case of primary tuberculosis of gingiva, which manifested as gingivitis and ulceration of gingival. Diagnosis was based on histopathologic examination, along with other routine evaluation. Due to increase in the incidence of tuberculosis, this case report emphasizes the need for awareness of this possibility among the clinicians and, considers tuberculosis in the differential diagnosis of gingival enlargement and also plays a role in the early detection of this disease. Oral tuberculosis lesions are uncommon and are seen in both primary and secondary stages of the disease but have largely become a forgotten diagnosis in oral lesions. They are found in 0.05–5.00% of tuberculosis cases. Primary Tuberculosis infection of the gingivae is relatively rare condition. With the increased, incidence and prevalence of Tuberculosis all over the world, and considering the high morbidity and mortality rates of the condition, a possibility of Tubercular etiology should be considered and thereby leading to early detection and adequate management of the condition.

#### INTRODUCTION:

Tuberculosis is a multisystem disorder and is caused due to the infection of Mycobacterium Tuberculosis. one- third of the world's population are estimated to be infected with mycobacterium tuberculosis. It is an important cause of morbidity and mortality in developing countries. Africa accounts for 11% of world population. It can affect any part of the body. Oral tuberculosis is extremely rare condition.<sup>(1)</sup> It may be primary or secondary. Most cases of Oral Tuberculosis present with involvement of tongue.<sup>(2)</sup> It may also affect other sites such as lip, uvula, soft palate, cheek, gingiva and alveolar mucosa. The lesions may occur as patches, indurated soft tissue lesions, superficial ulcers or tuberculous osteomyelitis in the jaw.<sup>(3)</sup> Here we present a rare case of primary tuberculous gingivitis.

#### CASE REPORT:

An 18 year old male from Mangalore who is a student by occupation , presented to the dental OPD with complaints of swelling in the gums associated with pain and burning sensation since 4 months.

The patient revealed no history of fever, headache or any respiratory discomfort. There was no history of associated weight loss or decreased appetite. No Significant family history or any contact history of tuberculosis was noted. He is a non smoker and had no history of previous hospitalization, no history of any drug or dust allergies were present.

On examination, the patient appeared moderately built and nourished. General examination revealed no evidence of any cervical, axillary or inguinal lymphadenopathy. Systemic examination of respiratory, Cardiac, Abdomen & CNS were normal.

Local / Intraoral examination showed diffuse enlargement of palatal mucosa and labial and lingual side extending from right to left molars present in both upper and lower jaws. It had an irregular surface erythematous, ulcerative and discharge was present. Tenderness was present and occasional bleeding present. There were 2 to 3 dental carries and rest of the oral cavity was found to be normal.

Investigations : Chest x-ray was normal and the hemogram revealed rise in the leukocyte count. The serology and HIV screening was negative.

Patient underwent biopsy and histopathological examination. Histopathological examination showed epithelium as stratified squamous parakeratinized and of varying thickness with spongiosis and acanthosis in few sections as well as pseudo epithelial hyperplasia with prominent rete ridges. Underlying connective tissue stroma was highly cellular comprising mixed inflammatory infiltrate (chiefly plasma cells and few eosinophils, lymphocytes, neutrophils), histiocytes and macrophages, separated by fibrous septae. Focal Granulomas with foreign body giant cells and Langhan's giant Cells showing areas of caseation necrosis.

The histopathology reports were more in favor of chronic granulomatous infection Tuberculosis. The AFB staining was found to be negative. The tuberculin test showed no indurations after 48 hours. Thus the diagnosis of Primary Tubercular Gingivitis was made and patient was started on Anti tubercular treatment – Cat 1 Dots.

#### **DISCUSSION:**

Tuberculosis is one of the leading causes of increased morbidity and mortality approximately 32% of the world's population.<sup>(4,5)</sup> In the Indian population, the average prevalence of all forms of TB cases are reported to be 5.05 per 1,000 and the prevalence of smear- positive cases is 2.27 per 1,000.<sup>(5)</sup> Primary Tubercular Gingivitis is a very rare condition.<sup>(6)</sup> Thus there is decreased awareness of physicians towards this disease. This leads to delayed or false diagnosis and affects the health of the patient further.<sup>(5,6)</sup>

The exact pathogenesis of Primary Gingival TB is not known. The rare occurrence of tuberculosis of the gingiva is due to the intact squamous epithelium of the oral cavity and it resists direct penetration by bacilli. the organism could enter following a traumatic break. The mucous membrane or hematogenous spread secondary.<sup>(7,8)</sup>

In our case, there was no lymphadenopathy due to any secondary cause. The diagnosis was confirmed by the histopathology result and the working diagnosis of Primary Gingival Tuberculosis was made.

#### **CONCLUSION:**

Primary Tuberculosis infection of the gingivae is relatively rare condition. Hence the patient should undergo a detailed history taking and clinical examination. With the increased incidence and prevalence of tuberculosis all over the world, and considering the high morbidity and mortality rates of the condition, a possibility of tubercular

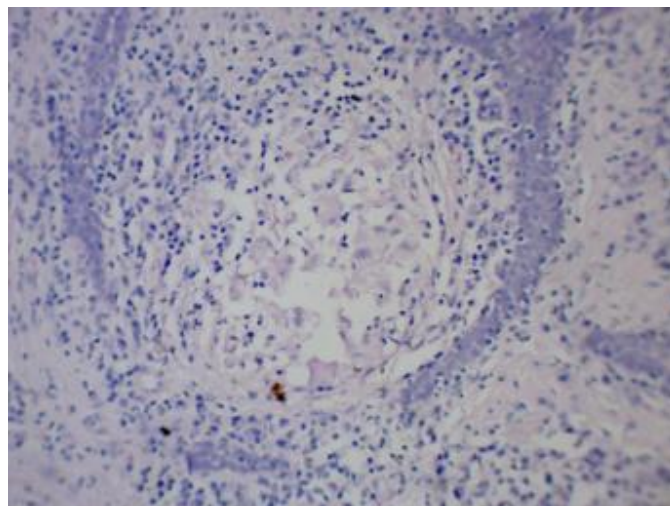
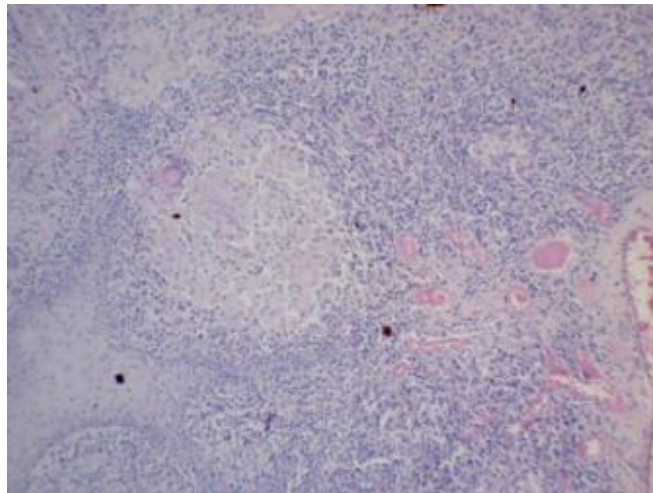
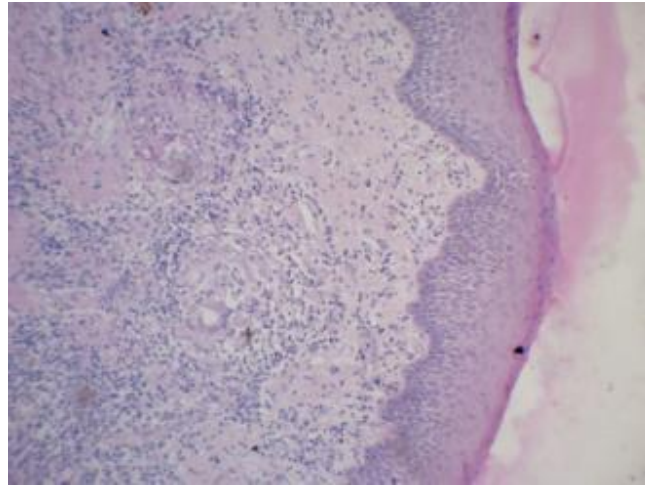
etiology should be considered in patients with gingivitis and thereby leading to early detection and adequate management of the condition.



GINGIVAL SWELLING



BIOPSY SAMPLE FROM THE SITE



HISTOPATHOLOGY SHOWING CASEATION NECROSIS

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