

## Case Report

### Primary Tonsillar Tuberculosis: a case report

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**Abstract:** Primary tuberculosis of tonsil is extremely rare and is often mistaken for malignancy, although tuberculosis infection is widespread in all parts of world especially in southeast Asia and Africa. We present a case of tonsillar tuberculosis in an adult female who was suspected of malignancy and subsequently proved to have tuberculosis on histopathology.

**Keywords:** Primary, Tonsillar tuberculosis, granuloma.

#### INTRODUCTION

Primary tuberculosis of the tonsil in the absence of active pulmonary tuberculosis is rare and usually occurs secondary to pulmonary disease [1]. Tuberculosis (TB) of the head and neck (excluding laryngeal forms) is exceptional and constitute only 2–6% of the cases of TB outside the lungs, and 0.1–1% of all forms of TB [2]. The upper aerodigestive tract is in direct contact with external environment and exposed to food stuffs regularly but resists tuberculosis. Saliva by virtue of its cleansing action is thought to have an inhibitory effect on tubercle bacilli. It is also postulated that presence of saprophytes, the antagonism of striated musculature to bacterial invasion and thickness of the protective epithelial covering of the oropharyngeal mucosa have an inhibitory effect on tubercle bacilli [3, 4]. Tonsillar tuberculosis commonly presents with sore throat and cervical lymphadenopathy [5]. These findings along with ulcerated lesion on tonsil can lead to the suspicion of malignancy.

#### CASE REPORT

A 50 Years old female presented with history of sore throat and difficulty and pain in swallowing of solid food for one month. There was no history of cough, fever, hoarseness of voice, vomiting and regurgitation of food. Examination of oropharyngeal cavity showed an ulcer with slough over left tonsil about 10 × 10 mm in dimension. Rest of the oral cavity was apparently normal on gross appearance. There was left jugulodigastric lymphadenopathy. Chest X-ray was within normal limits (Figure 1). Routine investigations revealed Hb-10gm%, TLC-10350/mm<sup>3</sup>, ESR-70mm at 1hour. The patient was HIV seronegative. Mantoux test was positive with indurations of 18 × 18 mm. Punch biopsy was taken from the ulcerative growth on left

tonsil and lymphnode biopsy of jugulo-digastric node was sent for histopathological examination. Histopathological examination of the tonsillar biopsy revealed caseous necrosis of crypts surrounded by epithelioid cell granuloma, giant cell and rimmed by lymphocytes (figure 2). Similar features were noted in lymphnode as well (Figure 3). The acid-fast bacilli were not detected. Antituberculosis treatment was started. During follow up, sore throat and difficulty in swallowing was reduced. On gross appearance, the ulcer on left tonsil resolved.

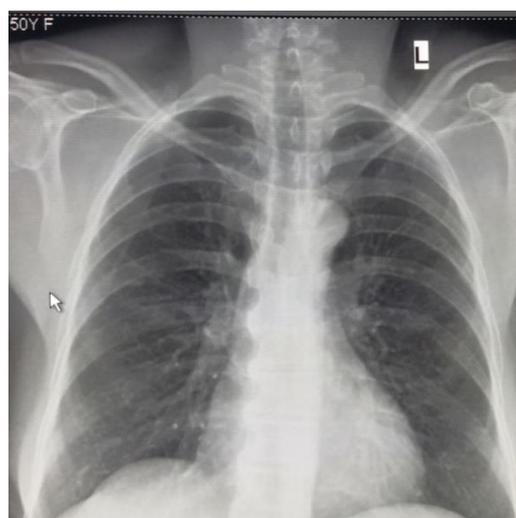
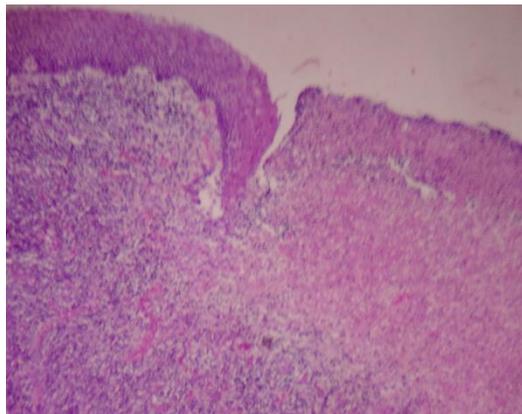
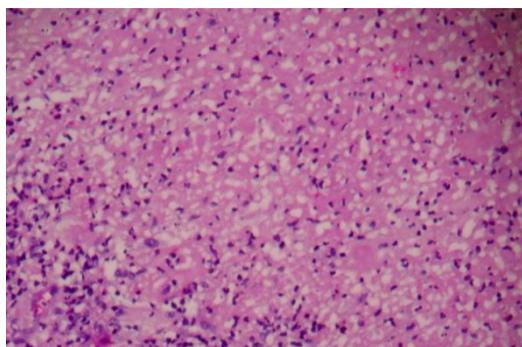


Fig-1:PA view of normal chest x-ray of the patient



**Fig-2: Photomicrograph ( H & E, 10 X) Tonsil tissue showing caseating granuloma.**



**Fig-3: Photomicrograph (H & E, 40 X) lymph node tissue showing extensive caseous necrosis surrounded by epithelioid cells.**

## DISCUSSION

Tuberculosis of the oral cavity is uncommon and tonsillar forms are extremely rare [6]. Vayisoglu *et al* studied 48 cases of head and neck tuberculosis between January 2000 and June 2009 and found only two cases of tonsillar tuberculosis [7]. Schrock *et al* retrospective study on initial diagnosis of head and neck tuberculosis between 1997 and 2010 concluded that tonsillar tuberculosis is rare and rarely manifest with organ specific symptoms [8]. Our case is similar to one reported by Surya kant *et al*. Diagnosis of tonsillar tuberculosis is based on histopathological findings and the identification of tubercle bacilli. Differential diagnosis of oral and pharyngeal tuberculosis includes traumatic ulcers, aphthous ulcers, hematological disorders, actinomycosis, syphilis, midline granuloma, Wegner's disease and malignancy [9]. According to David *et al* study of 22 cases of tonsillar granulomas, sarcoidosis (8 cases) was most common and there was no specific causes in 7 cases even after histopathology and application of special stains [10]. In our case, diagnosis of tuberculosis could be made because of

presence of caseous necrosis and epithelioid granuloma after which patient responded to antitubercular drugs. Although tuberculosis of tonsil is now an uncommon finding, tonsillar granulomata are commonly seen in patients with poor host reaction due to alcoholism, HIV infection. Predisposing factors for primary oral tuberculosis include poor dental hygiene, dental extraction, periodontitis, and leukoplakia. It has been postulated that such infections are acquired by inhalation, with harbouring of disease in Waldeyer's ring [11]. No such predisposing factor was seen in our case. Its rare occurrence, nonspecific symptoms and ulcer on tonsil and cervical lymphadenopathy mimicking malignancy prompted us to report this case.

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