



## Case Report

### Primary Tuberculosis of Tonsil: A Rare Site Involvement

Gaurav Kataria<sup>1\*</sup>, Aditi Saxena<sup>2</sup>, Baldev Singh<sup>3</sup>, Sanjeev Bhagat<sup>4</sup>, Jaspreet Kaur<sup>5</sup>

<sup>1</sup>Senior Resident, Department of ENT, SGRDIMSR, Amritsar, Punjab.

<sup>2,5</sup>Junior Residents, Department of Pathology, GMC, Amritsar, Punjab.

<sup>3</sup>Professor, Department of ENT, GMC, Patiala, Punjab.

<sup>4</sup>Associate Professor, Department of ENT, GMC, Patiala, Punjab.

#### ABSTRACT

Tuberculosis is one of the major causes of ill health and death worldwide. Isolated tuberculosis of tonsil in the absence of active pulmonary tuberculosis is a rare clinical entity. It may mimic malignancy. Patient seeks Doctors advice due to painful deglutition and pain in throat. Diagnosis of tonsillar tuberculosis is based on histopathological findings and the identification of tubercle bacilli. Early detection and intervention may have significant health benefits for the individual infected as well as for public health. Treatment is in the form of anti-tubercular therapy with good results. We present a case of 36 years old male with unilateral tonsillar enlargement, diagnosed as primary tuberculosis of tonsil on histopathology examination. Due to its rarity, we present this case.

**KEYWORDS:** Tuberculosis, Tonsil, Extrapulmonary tuberculosis, Sore throat.

#### INTRODUCTION

Tuberculosis is an infectious bacterial disease caused by *Mycobacterium tuberculosis*, which most commonly affects the lungs. It is transmitted from person to person via droplets from the throat and lungs of people with the active respiratory disease. Tuberculosis is still a common chronic granulomatous disease, especially in developing countries. As per World Health Organization (WHO) annual incidence of tuberculosis is 100 cases detected per 1,00,000 population in Europe and North America. The incidence is much higher in the Asian countries almost 300 cases per 1,00,000 population [1]. Tuberculosis is one of the major causes of ill health, morbidity and mortality worldwide.

Primary tuberculosis of the oral cavity and oropharynx is not so common. Isolated tuberculosis of tonsil in the absence of active pulmonary tuberculosis is a very rare clinical entity [2,3]. Approximately two percent of patients with active pulmonary tuberculosis show evidence of upper respiratory tract involvement [4]. Oral cavity tuberculosis may be either primary or secondary. Tongue and palate are the common sites, whereas primary tonsillar tuberculosis is a rare localization [3].

Tuberculosis of tonsil is still a diagnostic challenge and it is usually misdiagnosed. Early diagnosis is essential as

medical treatment gives good treatment. We present a case of primary tuberculosis of tonsil in a 36 year old male due to rarity of the condition and diagnostic dilemma.

#### CASE REPORT

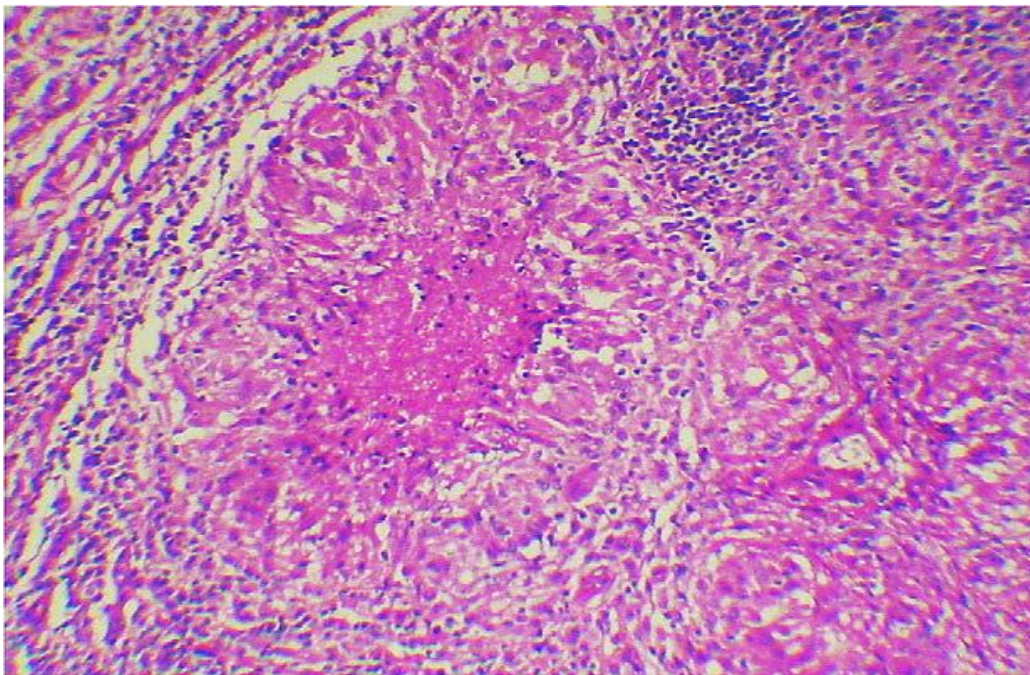
A 36 years old male presented to Otorhinolaryngology Department of Govt. Medical College and Rajindera Hospital, Patiala with complaints of throat pain, stiff mouth and painful deglutition for last 5-6 months. He also had history of bleeding from oral cavity 3-4 times after minor trauma, sometimes even during chewing food. He had no previous history of chronic cough or any other chest symptoms. General physical examination revealed no abnormality. Local examination of oral cavity and oropharynx revealed irregular enlargement of left tonsil, bulging into oropharynx with oedema and erythema along with a few whitish to yellow plaques on its surface and surface was rough.

On right tonsil, no well defined lesion was seen but tonsil pillars were thickened and irregular. On indirect laryngoscopy enlargement of tonsil was seen up to its lower pole. Both tonsillar area were firm to hard on palpation.

Base of tongue was normal. Examination of ear, nose, larynx and chest was within normal limits. Neck nodes were clinically not palpable. Routine investigations were done and ESR was 50 mm in first hour. The chest skiagram showed no abnormality and sputum for acid fast bacilli was negative. Ultrasound abdomen was also normal. To make a diagnosis and to rule out malignancy unilateral left sided tonsillectomy was done and tonsillar tissue was sent for histopathological examination and patient was managed conservatively awaiting biopsy report.

Histopathology report (Fig.1) revealed granulomatous inflammatory lesion with caseation necrosis, epithelioid cells and Langhans giant cells, compatible with the diagnosis of tuberculosis. Serological test for HIV was negative. The patient was categorised as primary tuberculosis of tonsil and anti-tubercular treatment was started. The patient was treated with 2HRZE/ 4HR regimen of Isoniazid (300 mg), Rifampicin (450 mg), Ethambutol (800 mg) and Pyrazinamide (1500 mg). The patient showed good improvement and symptoms of throat pain and painful deglutition were no more.

**Figure:1 Tonsil tissue showing Langhans giant cells and caseation necrosis on H & E stained section**



## DISCUSSION

Extra pulmonary tuberculosis represents approximately 25% of overall tubercular morbidity [5]. Among extra pulmonary tuberculosis, most common is lymph node tuberculosis while other forms are: pleural, skeletal, abdominal, genitor-urinary tuberculosis, miliary tuberculosis. Tuberculosis of the oral cavity is uncommon and tonsillar forms are extremely rare [6]. Tuberculosis of the tonsil can result from infection by contact with material containing tubercle bacilli. The site commonly involved is the tongue, followed by palate, gums and lips. 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 etc. 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 [7,8]. Tuberculosis of tonsils might be suspected if the tonsils are enlarged unequally on two sides without any exudates and might be associated with cervical lymphadenitis [9]. It can also present with obliteration of crypts and stretching of capsules [10]. Differential diagnosis of oral and pharyngeal tuberculosis includes traumatic ulcers, aphthous ulcers, haematological disorders,

actinomycosis, syphilis, midline granuloma, Wegner's disease and malignancy. Diagnosis of tonsillar tuberculosis is based on histopathological findings and the identification of tubercle bacilli. In the presence of lesions in lung, the tuberculosis of tonsil is considered secondary and if absent, it is labelled as primary. Treatment is in the form of anti tubercular therapy with good results [11].

## CONCLUSION

Tuberculosis of tonsils should be suspected if the tonsils are enlarged unequally on two sides without any exudates and associated with cervical lymphadenitis. It can also present with obliteration of crypts and stretching of capsules. It can mimic malignancy, so, the otorhinolaryngologist should remain alert to the possibility of tuberculosis especially in developing countries like India. Patient seeks Doctors advice due to painful deglutition and pain in throat. The number of new cases is increasing in developing countries. Early detection and intervention may have significant health benefits for the individual infected as well as for public health. Isolated and primary tuberculosis of the tonsils in the absence of pulmonary tuberculosis is a rare entity, which prompted us to report this case.

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\*Corresponding author: Dr Gaurav Kataria  
E-Mail: [dr.gauravkats@gmail.com](mailto:dr.gauravkats@gmail.com)