



A CASE REPORT ON RARE PRESENTATION OF EXTRAPULMONARY TUBERCULOSIS – PRIMARY TUBERCULAR SIALADENITIS

Dr. Sadhna Sharma

MD, Professor and HOD, Department Of General Medicine, NRI Academy Of Medical Sciences, Guntur.

Dr. N. Lakshmi Madhuri*

Final Year Postgraduate, MD General Medicine NRI Medical College, Chinakakani, Guntur. *Corresponding Author

Dr. P. Likhitha

Final Year Postgraduate, MD General Medicine NRI Medical College, Chinakakani, Guntur.

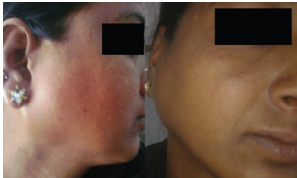
ABSTRACT Tubercular sialadenitis is a very rare presentation of extrapulmonary tuberculosis. A 38 year old female presented with right sided painful parotid and submandibular swelling of 20 days duration associated with fever. On physical examination she was found to have right parotid and submandibular swelling along with right sided cervical lymphadenopathy. FNAC of the lymph node as well as submandibular gland was suggestive of necrotizing granulomatous inflammation. TB is a necrotizing granulomatous disease with varied clinical presentations and a wide distribution. Extra pulmonary TB accounts for around 30% of TB cases in India. The head and neck region accounts for 10% of extra-pulmonary sites of which cervical lymph nodes are most commonly affected followed by larynx, deep neck spaces, middle ear. A high index of suspicion is a prerequisite, especially in endemic countries like India. Cytological studies, AFB staining, Culture and Biopsy when necessary are recommended.

KEYWORDS :

INTRODUCTION:

Tuberculosis is a necrotizing granulomatous disease with high morbidity and mortality. Extrapulmonary tuberculosis accounts for at least 30% cases in India. Tuberculosis of salivary gland is a rare condition and occurs secondary to systemic disease from a distant focus or can occur as primary TB sialadenitis. It is crucial for the early diagnosis of TB sialadenitis to avoid unnecessary surgery. Diagnosis mainly relies upon the treating physician having a high index of suspicion. We report a case of tuberculosis of parotid and submandibular glands along with the involvement of draining cervical lymph nodes.

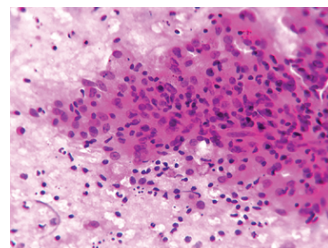
CASE REPORT:



A 36-year-old female patient presented to our Medical OPD with complaints of swelling over right parotid and submandibular regions associated with pain and fever for 20 days duration. No history of constitutional symptoms or TB contact. No symptoms suggestive of pulmonary tuberculosis.

On examination, bimanually palpable swelling of size 2×2cm, mildly tender, was noted in the submandibular region on the right side, and skin over the swelling was normal. Another bimanually palpable swelling of size 3×2cm, which was tender with redness over the skin was noted in the right parotid region. Rest of the oral cavity was normal. Multiple palpable lymph nodes were noted in the right cervical region in the submandibular, upper middle and lower jugular region.

Routine blood investigations were normal. Ultrasound of the neck showed bulky right parotid and submandibular glands with few necrotizing lymph nodes in the right cervical region, largest measuring 2.5×2cm in the submandibular region. Symptoms did not improve even with a 5-days course of intravenous broad-spectrum antibiotics. FNAC of the submandibular lymph node showed clusters of epithelioid cells, lymphocytes and blotches of necrosis suggestive of Tuberculous lymphadenitis. FNAC of the submandibular gland also showed necrotizing granulomatous inflammation. The patient was started on anti-tubercular therapy and continued for a duration of 6 months. The 6 month course of ATT was uneventful with gradual improvement of symptoms, regression of the swelling as well as lymph nodes.



DISCUSSION:

Tuberculosis is a necrotizing granulomatous disease with a variety of clinical presentations. According to the World Health Organization (WHO) in 2018, 10 million individuals became ill with TB and 1.5 million people died¹. Tuberculosis plays a major role in mortality and morbidity in developing countries. Head and neck tuberculosis is a common form of extrapulmonary tuberculosis and represents 30% of all mycobacterial infections². The salivary gland is a rare site of primary tuberculosis. One of the reasons may be due to the presence of thiocyanate ions and proteolytic enzymes such as lysozymes in the secretions of salivary gland which prevents lodging of bacteria³.

TB sialadenitis can be either primary or secondary. Most commonly, the involvement of salivary glands occurs secondary to systemic dissemination from a distant focus. Dissemination occurs specially from the lungs via hematogenous or lymphatic spread. Secondary tuberculosis involves the submandibular and sublingual glands more frequently than the parotid glands. Primary tuberculosis of salivary glands is rare and most common site of involvement is the parotid gland (70%)⁴. This may occur due to infected source of mycobacteria in the oral cavity such as tonsils or teeth which then spread to the nearby salivary gland through direct inoculation by sputum, retrograde ascent of bacilli through the salivary duct or by afferent lymphatics to its associated lymph nodes.

TB sialadenitis has a multitude of clinical presentations often contributing to a diagnostic dilemma⁵. The most common mode of presentation observed so far is a slow growing, painless mass of the involved gland which mimics a neoplasm. It can also present as a chronic gland enlargement associated with pain mimicking chronic sialadenitis. Fever, weight loss or loss of appetite are usually absent in primary tubercular sialadenitis. Since physical examination is non-diagnostic, it needs a high index of suspicion and reliable diagnostic modalities⁶. FNAC is advocated as a useful diagnostic technique for the diagnosis of tubercular sialadenitis. Most often performed as an initial diagnostic test in the evaluation of a parotid or submandibular gland swelling. It is

reported to have a sensitivity of 81-100% and a specificity of 94-100% in parotid lesions. Ultrasound guided FNAC helps in taking the sample from a more representative area but does not yield findings diagnostic of tuberculosis.

The aspirate can also be sent for AFB staining and mycobacterial culture. However, they lack sensitivity for diagnosis of extrapulmonary TB⁷. The more recently developed PCR is the single most sensitive technique available for the detection of Mycobacterium tuberculosis in the aspirate. It is very rapid and easy to perform to start early treatment and prevent further transmission of infection⁸. At times, it is impossible to diagnose tuberculous sialadenitis pre-operatively and patients undergo surgical excision of the involved gland with the diagnosis made on histopathological examination. The presence of granuloma with central necrosis surrounded by epithelioid cells and Langhan's giant cells is the histopathological hallmark of tuberculosis. A four-drug regimen (isoniazid, rifampicin, ethambutol and pyrazinamide) in the intensive phase and two drug regimen (isoniazid and rifampicin) in the continuation phase is the recommended treatment.

CONCLUSION:

Primary tubercular sialadenitis is a rare entity with varied clinical presentations. A high index of suspicion is prerequisite especially in endemic countries like India. Cytology studies, AFB staining and mycobacterial culture of the aspirate are the initial investigations of choice, while PCR is reserved for negative cases. At times, however, excision of the gland becomes inevitable and the diagnosis is made post-operatively. A high index of suspicion, early diagnosis and timely institution of anti-tubercular treatment is essential in establishing a cure.

REFERENCES:

1. World Health Organization. Global tuberculosis report 2019. Available from: https://www.who.int/tb/publications/global_report/en/ Accessed: January 2020
2. Kumar SP, Rajesh Kumar P. Primary Tuberculosis of Submandibular Gland Presenting as Dental Abscess. *J Otol Rhinol.* 2013;2:2.
3. Gupta KB, Yadav SPS, Sarita, Manchanda M. Primary pharyngeal tuberculosis. *Lung India* 2005;22:127-9.
4. Kasim KS, Namavar E, Yunus MRM. A rare case of primary tuberculosis of the submandibular gland. *Egypt J Ear Nose Throat Allied Sci.* 2015; 16:87-9.
5. Prasad KC, Sreedharan S, Chakravarthy Y, Prasad SC. Tuberculosis in the head and neck: Experience in India. *J Laryngol Otol.* 2007; 121: 979-85.
6. Janmeja AK, Das SK, Kochhar S, Handa U. Tuberculosis of the parotid gland. *Indian J Chest Dis Allied Sci.* 2003;45:67-9.
7. Makesh Kumar V, Madhavan R, Narayanan S. Polymerase chain reaction targeting insertion sequence for the diagnosis of extrapulmonary tuberculosis. *Ind J Med Res.* 2014;139(1):161-6.
8. Singh KK, Muralidhar M, Kumar A, Chattopadhyaya TK, Kapila K, Singh MK, et al. Comparison of in-house polymerase chain reaction with conventional techniques for the detection of Mycobacterium tuberculosis DNA in granulomatous lymphadenopathy. *J Clin Pathol.* 2000;53(5):355-61.