

Tuberculosis of minor salivary gland: A rare presentation of a common disease**Ranjan Raju², Nityasha¹, Anubhav², Sharma Pooja²**¹Professor, department of general surgery, Pt. B. D. Sharma PGIMS Rohtak,²Junior resident, department of general surgery, Pt. B. D. Sharma PGIMS Rohtak***Corresponding author**

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Abstract: Tuberculosis is one of the most common diseases prevalent in India. Tuberculosis of minor salivary gland is an extremely rare form of extra-pulmonary tuberculosis with very few cases reported in literature. We report a case of 60 year old female who presented with swelling in her right cheek region which was found to be tuberculosis of minor salivary gland.**Keywords:** Tuberculosis, minor salivary gland

INTRODUCTION:

Tuberculosis is one of the oldest diseases known to mankind that affects virtually all organ systems in the human body. Tuberculosis is more prevalent in developing countries and has reached endemic proportions in India. The incidence of extra-pulmonary tuberculosis has shown an increasing trend with rise in the number of HIV cases. Most common sites of extra-pulmonary tuberculosis are lymph nodes, bones and genito-urinary tract. However the involvement of salivary glands is seldom reported and minor salivary gland involvement is extremely rare. We report a case of extra-pulmonary tuberculosis involving the minor salivary gland in a 61 year old female presenting as a swelling in the cheek.

CASE REPORT:

A 61 year old female presented to the surgical out patient department with chief complaint of a swelling on her right cheek for 4 months, which was gradually increasing in size. It was not associated with pain or any other constitutional symptoms. Patient had no history of tuberculosis or any other chronic illnesses. The patient was immunocompetent and there was no family history of tuberculosis. On examination, a 2 x 2 cm swelling was present on the right cheek. The overlying skin was normal and not fixed to the swelling. The swelling was mobile and firm in consistency. There was no tenderness and local rise in temperature. There was no extension into the oral cavity.

Her investigations revealed hemoglobin of 11 g/dL and ESR of 36 mm/hr. Her TLC was 13,000 cells/mm³ and differential counts revealed 58% neutrophils, 40% lymphocytes, 1% basophils and 1% eosinophils. Chest X ray was normal with no evidence

of pulmonary tuberculosis. Fine needle aspiration cytology revealed epithelioid cell granuloma in a background of lymphoid cells and lympho histiocytic cell clusters admixed with RBCs. ZN staining for AFB was negative and cytological features were suggestive of granulomatous inflammation.

A subsequently done excision biopsy of the swelling revealed salivary tissue with several necrotizing epithelioid cell granulomas with Langerhans cell type Giant cells and chronic inflammatory infiltrate. ZN staining was non-contributory. Final impression was necrotizing granulomatous inflammation suggestive of tuberculosis of minor salivary gland (fig 1). The patient was thereafter prescribed ATT. On 3 months follow up patient was doing well and her surgical site wound healed with primary intention. (Fig 2).

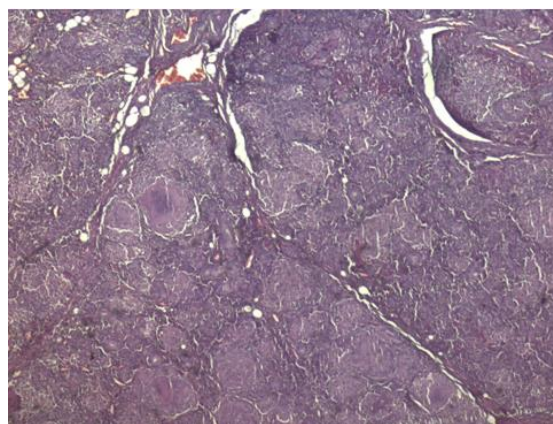
**Fig-1: Microscopic view of tuberculosis of minor salivary gland.**



Fig- 2: Healed surgical scar of excised minor salivary gland.

DISCUSSION:

Tuberculosis is a major health problem in developing countries especially India. Involvement of the head and neck is a fairly common presentation of extra pulmonary tuberculosis. However, even in endemic regions, tuberculosis involving the salivary glands is rare with nearly 100 cases reported worldwide. Among the salivary glands, parotid glands are most commonly involved with less than 10 cases reported involving the sub-mandibular glands and only one previously reported case involving the minor salivary glands [1]. It is speculated that the actual incidence of salivary gland tuberculosis may be higher than reported since the diagnosis requires a very high degree of suspicion, lack of proper guidelines for diagnosis and several undiagnosed secondary lesions which might be treated when the patient receives treatment for primary tuberculosis.

Involvement of the salivary gland is usually secondary to an infection in the oral cavity, commonly a tooth or tonsil infection. Primary tuberculosis of the salivary gland is believed to have been inoculated via the ducts. Since salivary glands are rich in proteolytic enzymes and thiocyanate ions, it makes them an unusual site for developing tuberculosis. Tuberculosis of salivary gland may present as an acute suppurative sialadenitis or more commonly as a chronic asymptomatic mass often indistinguishable from a salivary gland neoplasia on clinical examination [2]. Constitutional symptoms are usually not seen; with no evidence of active tuberculosis elsewhere in the body [3]. Diagnosis becomes extremely difficult if the secretions from the salivary glands are negative for AFB.

The common modality of diagnosis is FNAC, which has a sensitivity of less than 50%. However FNAC can be combined with PCR to greatly improve the sensitivity and highly recommended before a surgical intervention is planned [4]. A histological

diagnosis is only possible with an excision biopsy since an incision biopsy is likely to develop a chronic fistula. A CT scan is unable to distinguish tuberculosis from a neoplastic etiology.

Majority of the cases are responsive to ATT alone, however surgical intervention may be undertaken in cases of diagnostic uncertainty and poor response to ATT. ATT must be continued even after surgical resection of the mass and usually advised for 8-12 months.

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