



## UNILATERAL PAROTID TUBERCULOSIS: AN UNCOMMON PRESENTATION OF COMMON DISEASE IN NEPAL

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### ABSTRACT

Tuberculosis is chronic granulomatous infectious disease commonly caused by Mycobacterium Tuberculosis and primarily affects lungs. Its extra-pulmonary presentation is not uncommon as Pleural Tuberculosis, Abdominal Tuberculosis, Vertebral Tuberculosis and severe form of Tubercular Meningitis. However, it is common as extra-pulmonary tuberculosis but Parotid Tuberculosis is very rare. Here we are presenting, 18yrs. Old boy with unilateral parotid swelling mimicking pleomorphic adenoma, to make aware that TB parotid should be considered as D/D of parotid swelling, as TB parotid can be managed medically and neoplasm needs surgery. We try to focus this case to avoid unnecessary surgery as parotid surgery carries complications like nerve injury or cosmetically unacceptable scan.

**Keywords:** Pleomorphic adenoma, Tubercular parotitis, FNAC, Mantoux test.

## INTRODUCTION

Tuberculosis is chronic granulomatous necrotizing infectious disease with various presentations. Lungs are the most commonly affected sites. Active tuberculosis accounts 20% of extra-pulmonary presentation(1, 2). However, involvement of parotid gland is rare in tuberculosis even in high endemic countries(3). There are less than 200 cases of reported parotid TB since first description was done on 1894 by Von Stubenrauch (4, 5). Diagnosis of parotid TB needs high clinical suspicion as it is clinically slow growing mass and difficult to differentiate with pleomorphic adenoma (6). In the absence of pulmonary involvement and absence of exposure to TB, it is extremely difficult to diagnose. Therefore, it is over looked by ENT surgeon with unnecessary surgery.

## CASE PRESENTATION

An 18 year old, male patient presents with unilateral, right parotid swelling and presented to GP. He was prescribed with antibiotics and analgesics with provisional diagnosis with Mumps parotitis. After completion of antibiotics and NSAIDs, there is no improvement of swelling and referred for consultation. After brief history taking and clinical examinations, findings are:

- a) Mild tender parotid swelling with nodular presentation of size 3.19cm x 3.05cm.
- b) No history of Tuberculosis.
- c) No family history of Tuberculosis.
- d) No weight loss.
- e) No night sweats.

The primary aim was to rule out parotid malignancy, thus patient was asked for Ultrasonography. Ultrasonography shows enlarged parotid with collection. Then patient was sent for FNAC. FNAC shows necrotized cell debris with presentation of Langerhans cells. Thus, conclusion was made as Cold Abscess but no AFB seen.

Now workup for TB was done.

- 1) Three-night sample of sputum for AFB was negative.
- 2) ESR was 50mm/hr.
- 3) Serum ADA-Normal
- 4) But, TB IgM was positive
- 5) Mantoux20mm (strongly positive)



ascend to parotid gland via duct or via lymphatic drainage or second hematogenous pathway (2). Clinical presentation of parotid TB includes localized mass, acute parotitis with diffuse gland enlargement or periauricular abscess or fistula (8). Clinical diagnosis is very difficult in absence of primary lesions in lungs, as it presents like slow growing mass, mimicking the neoplasm. Size gradually increases in 2-6 months, so it is difficult to distinguish from neoplasm (9). Our patient did not have chest radiograph with evidence of primary lesions. But Tuberculin Test (20mm), before excision biopsy planned was helpful. Definitive TB diagnosis depends on isolation of organism on diagnosis specimen (3, 10). But, Maynard stated that there were no distinguished methods to differentiate TB from malignancy (11). FNAC is useful and reliable method for diagnosis of Parotid TB (1, 3, 6). Parotid lesions, FNAC carries 81-100% sensitivity and 94-100% specificity (9). Because negative FNAC does not rule out malignancy, other imaging modalities are to be used. MRI is superior among them (9, 12). But MRI also can't differentiate TB from malignancy. If other tests are inconclusive in TB, excisional biopsy is mandatory as explained by Lee and Liu in their meta-analysis of 49 patients.

In our patient, we expect excision biopsy with FNAC carries high specificity and sensitivity, and tuberculin skin test was supportive.

## CONCLUSION

Tb parotid is extremely rare but before referring any parotid swelling to ENT surgeon, it is mandatory to perform FNAC and high clinical suspicion of TB. This can minimize the unnecessary overlooked surgery.

### Compelling Interests:

-Author(s) declare no conflict of interest.

### Author contribution:

1. Data collection and presentation done by (1, 2).
2. Scientific analysis, literature review and guidelines given by author (2).

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