



CASE REPORT : PRIMARY PAROTID TUBERCULOSIS, AN UNUSUAL CAUSE OF PAROTID GLAND SWELLING.

Surgery

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ABSTRACT

Tuberculosis of parotid gland is an uncommon entity. Distinction between parotid neoplasm and tuberculosis is based on histopathological examination and culture sensitivity respectively. Parotid gland tuberculosis has a good prognosis with drug therapy.

KEYWORDS

Parotid gland, Tuberculosis

INTRODUCTION

Parotid tuberculosis is a rare form of extrapulmonary tuberculosis. It is rare even in an endemic country like India. Parotid gland tuberculosis has very rarely been reported in the literature, only about hundred cases. It presents as a swelling in the parotid region. However, if treated properly, the prognosis of tuberculosis of the parotid gland is good and surgery is not required in most of the cases. We report a case of primary tubercular parotiditis, in a patient who was diagnosed early and managed by a six-month regimen of antitubercular chemotherapy.

Case Summary : Here we are presenting a case history of a unilateral parotid swelling with an underlying abscess. A 60-years-old male presented to us with left ear-ache and discharge for 10 days and pain over left parotid region with fever for last 3 - 5 days and was associated with toothache and difficulty in opening of the mouth and eating and was associated with weight loss over last 4 months. There was no any past history of tuberculosis or Covid-19 infection. On physical examination, patient had mild pallor and was thin built. Local examination revealed a swelling in the left parotid region of size (2 × 2) cm, firm and non-tender with ill-defined borders and normal overlying skin. Facial nerve was intact, and the movements of cervical spine were also normal. Ear examination shows otomycosis with small perforation in tympanic membrane, oral cavity shows candidiasis. There were no palpable cervical lymph nodes in the neck on same side or opposite side. The rest of head and neck examination was normal.

On investigation - Hematological investigations shows raised total leucocyte count of 11,500/mm³. ESR was 67mm in 1st hour. Mantoux test and Sputum AFB were done and found to be negative. USG-neck and parotid region was done and suggestive of periglandular and intraglandular subcentimeter lymph node enlargement in left parotid region. Patient was treated with higher injectable antibiotic but the swelling and symptoms didn't subside and dental opinion was taken to rule out any odontogenic cause of parotid region swelling and orthopantomogram was performed and dental caries were found with no any other significant abnormality. Also pulmonologist opinion was taken to rule out tuberculosis of lungs. As patient was not improving with the above interventions, Usg-guided FNAC from left parotid region was done and suggestive of acute suppurative inflammation with scattered lymphonuclear cells and giant cells present. Then CT-Scan of face with neck was done showing a collection of size (40 × 51 × 40) mm in intramuscular space of left masseter muscle and left infratemporal fossa and superficial lobe of left parotid. Few variable lymph nodes were noted involving level-Ia, Ib and II, largest of size (1.6 × 0.7) cm left level-II. In the visible chest CT scan - fibrobronchiectatic changes were present. Then Usg-guided aspiration was done and 2 ml of pus was aspirated which was sent for pus culture and sensitivity, AFB stain and CBNAAT. AFB-stain and pus-culture was negative but CBNAAT came positive for mycobacterium tuberculosis. Thus, the diagnosis of parotid tuberculosis was made and patient was put on daily regimen of anti-tuberculosis treatment with isoniazid, rifampicin, pyrazinamide, and ethambutol for first 2 months and isoniazid, rifampicin and ethambutol for next 4 months.



Figure 1- Left sided parotid swelling



Figure-2- CT-Scan of neck and parotid region showing collection in superficial lobe of left parotid gland, left masseter and left infratemporal region.



Figure 3- Orthopantomogram showing dental caries with no any other significant abnormality.

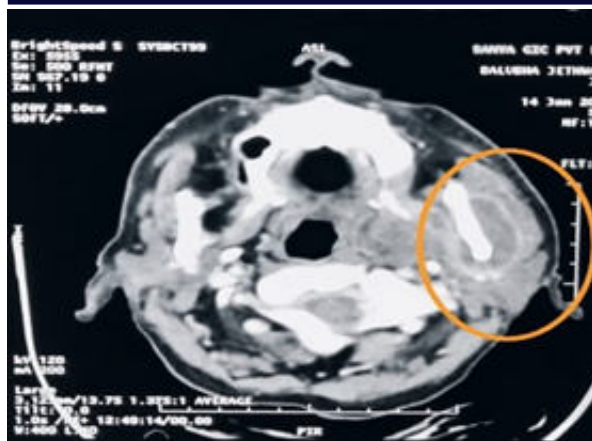


Figure 4- CT-Scan neck showing collection in superficial lobe of left parotid gland.

DISCUSSION

Parotid gland is relatively resistant to tuberculosis compared to other tissues due to the presence of lysozyme (anti-bacterial property) and thiocyanate ions and less stagnation due to continuous high rate of salivary flow. There are two varieties of parotid tuberculosis- Type-1 involves involvement of intraglandular lymph nodes and Type-2 involves parotid gland parenchyma respectively. Most common route of spread of mycobacterium tuberculosis to parotid gland is by direct extension into parotid gland via its duct from oral cavity. Other routes of spread of mycobacterium tuberculosis to parotid gland may be via lymphatic system from cervical lymph nodes, via hematogenous spread or autoinoculation with infected sputum. Various presentations of parotid tuberculosis includes acute sialadenitis with diffuse enlargement of the gland, parotid collection, periauricular abscess or fistula. FNAC has a high sensitivity and specificity in the diagnosis of tuberculosis. When FNAC is inconclusive then we have to opt for surgical procedure. Our patient was treated successfully with antitubercular drugs and was advised to come for follow up and there was no recurrence after completion of antitubercular therapy.

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