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Research Article

PRIMARY TUBERCULOSIS OF PAROTID GLAND-CASE REPORT AND CLINICOPATHOLOGICAL ANALYSIS

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ABSTRACT

In an endemic country like India tuberculosis is a common clinical entity. It can affect almost any organ of our body. For sites like a parotid gland, a rare site of extrapulmonary tuberculosis one would consider the possibility of abscess and not tuberculosis as its occurrence in the parotid region is extremely rare. It becomes even more unlikely to consider tuberculosis if repeated investigations turn out to be negative. A 44-year-old male patient from Mumbai, came with complain of right side parotid swelling with discharging sinuses since 5 months. Repeated culture and AFB smear turned out to be negative. There was no response to antibiotics. Biopsy from parotid swelling was taken and sent for HPE study, TB PCR, Gene expert. TBPCR and GeneXpert were suggestive of tuberculosis. Antitubercular therapy was started soon after to which patient responded well and unnecessary surgery was avoided. Since tuberculosis is a common infection in our country, it should be considered in the differential diagnosis of parotid swelling or abscess.

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INTRODUCTION

Acute suppurative sialadenitis is an uncommon disorder characterised by painful swelling of the gland (usually Parotid), purulent discharge from the affected parotid gland duct, associated dysgeusia and cervical lymphadenopathy. There have been limited reports of acute sialadenitis associated with primary Mycobacterium tuberculosis and nontuberculosis mycobacterial infection. Tuberculosis is a necrotizing granulomatous disease with varied clinical presentations and a wide distribution. The lungs are most commonly involved. Extrapulmonary forms of the disease account for approximately 15-20% of overall active tuberculosis and can be seen in the kidneys, bones, meninges, and lymph nodes [1,2]. 1 Because of the wide variation of clinical manifestations, diagnosis of extrapulmonary TB is relatively difficult. 1,2 Involvement of the parotid gland by TB is rare. Even in endemic countries like India only limited cases have been reported. 1-6 In Patients of parotid gland sialadenitis without any previous history of pulmonary tuberculosis, diagnosing parotid tuberculosis becomes a difficult task. Physician or Otorhinolaryngologists with a high index of suspicion can only diagnose the disease.

Case Report

A 44-year-old male patient came to OPD with complain of intermittent right side preauricular swelling of size 4 cm x 2 cm since 5 months followed by the development of swelling in right side of the neck of size 6 cmx2 cm below the right angle of the mandible. It was associated with discharging sinus. The swellings were associated with pain. There was no history of fever. The Skin was indurated over the swellings. The swellings were on mobile. No past history of pulmonary tuberculosis or no history of contact with any case of tuberculosis was present. The complete blood count, erythrocyte sedimentation rate, other biochemical investigations and chest X-ray were normal. Montoux test turned out negative. Ultrasonography of the parotid and neck showed intraparotid abscess associated with adjoining soft tissue inflammation. Few Intraparotid and enlarged Extraparotid cervical lymph nodes at Level II appeared secondary to infective pathology. FNAC of the swelling showed hemorrhagic aspirate. ZN staining for AFB was negative. Ultrasonography guided FNAC showed acute non-specific sialadenitis. Blood culture showed no growth. An incisional biopsy from the right infraauricular region, where the sinus was present, was done.

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Fig-1 Swelling in preauricular and infraauricular region with sinus in infraauricular swelling



Fig-2 Incisional biopsy at site of sinus



Fig-3 Complete remission of swelling after 6 months of the AKT with minimal scarring

after, i.e., INH(H) 300 mg, Rifampicin(R) 450 mg, Pyrazinamide(Z) 1500 mg, and Ethambutol(E) 800 mg, Streptomycin(S)50 mg/kg for 2 months; then HRZE for for 1 month and HRE till now. The swelling had completely disappeared at the end of the treatment period. At 5 months post-ATT follow-up, the patient was asymptomatic without any swelling with minimal scar.

DISCUSSION

Extra pulmonary tuberculosis is the relatively common cause of granulomatous disease of the head and neck. TB Lymphadenitis being the most common form of extrapulmonary tuberculosis. It is relatively rare in the salivary glands, even in those areas where tuberculosis is endemic.[1] The salivary gland tuberculosis is much more common in immunosuppressed patients. Usually, tuberculosis affects one side of the salivary gland. Parotid tuberculosis is a rare form of extra pulmonary tuberculosis. It usually presents as a unilateral swelling or abscess involving the parenchyma of the gland .The most common route of infection of the parotid gland is by direct extension of the bacilli from the oral cavity via the gland ductal system.[2] An unusual form in which intra-parotid and peri-parotid lymph nodes become infected either by lymphatic drainage from the oral cavity or hematogenously from a pulmonary focus is also known to occur[3]. A presumptive diagnosis of tuberculous sialadenitis can be made if there is evidence of tuberculosis elsewhere in the body.[1] But in cases where no lesion is detectable elsewhere, the diagnosis most often is made by culture of saliva, tissue culture, aspiration cytology, or histopathology. The material can be subjected to AFB staining. Incisional biopsy should be avoided as it can lead to a chronic fistula. But in this case, the patient already had a discharging sinus. Hence, the sinus was included in the biopsy sample. TB-PCR for mycobacterium tuberculosis is a reliable diagnostic tool, and if available, it should be performed before surgical intervention to avoid unnecessary surgery. The differential diagnosis includes generally benign or neoplastic diseases of the parotid gland and sarcoidosis. In cases diagnosed as tubercular sialadenitis treatment involves AKT (i.e., a combination of INH, Rifampicin, Pyrazinamide, and Ethambutol) for 8–12 months.[4-6,9] If resistant to medical treatment, the gland or tumor lesion should be excised.[4-7,8]. Since our patient had no evidence of tuberculosis elsewhere in the body and tuberculosis of parotid gland being rare, FNAC was done which was inconclusive, therefore an incisional biopsy was performed at the site of sinus and tissue sent for TB-PCR and GeneXpert which came to be positive. TB-PCR and GeneXpert for mycobacterium tuberculosis are a reliable diagnostic tool. They should be performed before surgical intervention to reach a final diagnosis. The test is a molecular test which detects the DNA in tuberculosis bacteria [10]. Our patient responded well to antitubercular treatment without surgery.

CONCLUSION

Tuberculosis of the parotid gland is a rare clinical entity which presents difficulties in diagnosis because of the similarity of the presentation to that of other cause of acute sialadenitis. We have reported the cases for its clinical interest and diagnostic dilemma.

The sinus was included in the biopsy. and sent for the histopathological study, GeneXpert and TB-PCR before performing the superficial parotidectomy. Gene expert and TB PCR were positive for tuberculosis. Histopathology examination showed granulomatous inflammatory lesion. The patient was started on AKT basing on TBPCR report soon

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