Case Report

Tubercular parotitis; a forgotten entity

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Abstract

Tubercular parotitis is extremely rare, even in countries such as India, where the burden of tuberculosis is very high. Clinically, it presents as a slow-growing localized mass, indistinguishable from a neoplasm. Imaging studies are non-specific. USG guided fine needle aspiration cytology (FNAC) can provide a pre operative screening procedure. We present a case of parotid tuberculosis in a 56-year-old diabetic male with short duration of fever and parotitis. We diagnosed the case on the basis of high erythrocyte sedimentation rate, lymphocyte predominant parotitis, epithelioid granuloma in right pre auricular lymphnode and parotid aspirate polymerase chain reaction (PCR) yielding mycobacterium tuberculosis. The patient responded well to 6 months of anti tubercular therapy with optimized diabetes and hypertension management and doing well at the end of 1 year of completion of treatment.

Key words: tuberculosis of parotid, tubercular parotitis, tubercular pre auricular lymph node.

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Introduction

Parotids are salivary glands situated in anterolateral aspect of face just below the ears. Parotitis presents as local swelling, pain and with or without fever. Parotitis can be acute or chronic. Viral acute parotitis are commoner than bacterial and mumps parotitis are most common world wide. Chronic parotitis can be because of either viral or bacterial etiology but more commonly associated with autoimmune diseases. Tubercular parotitis is rare [1]. Only few cases have been reported worldwide [2]. It accounts for 2.5%-10% of parotid swellings [3]. We present here a case of parotitis with isolated pre auricular lymphadenopathy in a middle aged male.

Case Report

A 56 yr old male patient presented to the Department of Surgery with fever for 12 days, pain and swelling over the right parotid 10 days. He was a known case of diabetes for 3 years and hypertension for 2 years. He was on metformin 500 mg twice daily and telmisartan 40 mg. On examination the right parotid was swollen diffusely and minimally tender. The overlying skin was healthy and there was tender right sided pre-auricular lymphadenopathy. The patient was febrile without any other symptoms. He was provisionally diagnosed as mumps parotitis and treated with oral amoxy-clav and paracitamol for 5 days. The symptoms progressed and he was referred to the Department of Medicine. The patient was of average body built, temperature – 99^0F, pulse – 96/min, blood pressure 130/80 and respiratory rate was16/min. There was mild pallor and right pre-auricular lymphadenopathy which was firm and 1.5cm x1.5cm. Chest, heart, and abdomen did not reveal any abnormality. The right parotid was swollen with features of inflammation in nearby areas (Image-1). He was provisionally diagnosed to be having parotid malignancy and investigated.

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Haemogram showed Hb-9 gm % TLC-12000/cmm, DLC: N-48%, L-48%, ESR-60 in 1st hour, FPG-162 mg/dl, PPPG-198mg/dl, BUN-10.2, Creatnine-1.1. Routine urine examination did not reveal any abnormality. X-Ray chest was normal. Ultrasound of the neck with 12MHZ probe showed left superficial parotid abscess with pre auricular lymphadenopathy. Ultrasound guided fine needle aspiration (FNAC) of right parotid gland and right pre auricular lymph node was done. Histopathology of parotid revealed nonspecific parotitis with lymphocyte predominant infiltration. Histopathology of lymph node revealed epithelioid cell granulomas and Langhan's giant cells in an inflammatory and hemorrhagic background. Acid fast bacilli (AFB) stain of the FNAC contents was negative. Blood, urine and the FNAC content cultures were negative for aerobic bacteria and mycobacterium. Polymerase chain reaction (PCR) of the FNAC content from parotid was positive for Mycobacterium tuberculosis. We could not do drug sensitivity testing. The patient was given anti tubercular therapy under DOTS, CAT-I. Diabetes and hypertension treatment was optimized. Fever subsided after 2 weeks. The patient completed the regimen and doing fine after 1 year of completion of treatment, when he was seen last.

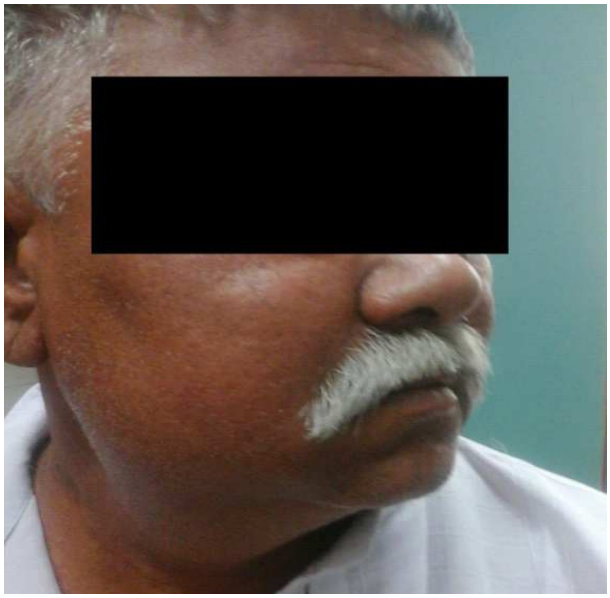

Fig 1: Image showing right parotid and edema over the surrounding areas

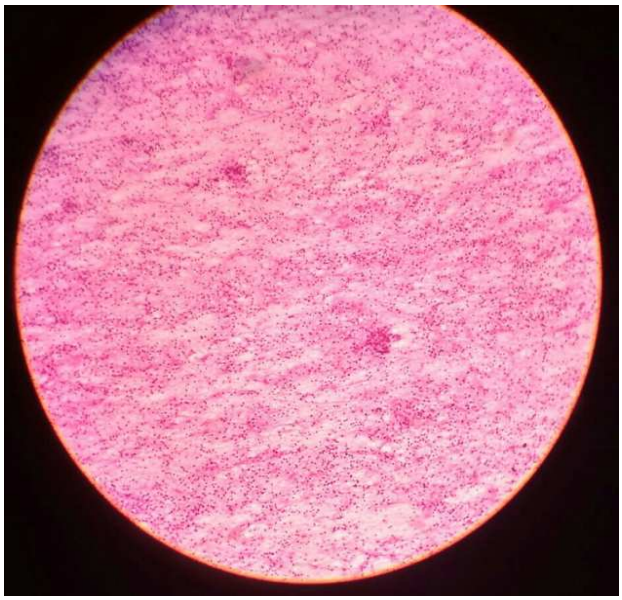

Fig 2: Photomicrograph showing an epithelioid cell granulomas and an Langhan's giant cell in an inflammatory and hemorrhagic background. (H & E, 100x)

Discussion

Tubercular parotitis is an uncommon cause of fever and parotid swelling. This entity has been rare even in tuberculosis endemic regions like India [1]. Fewer than 100 cases have been reported in the literature till date [2]. Our case presented with short onset diffuse parotid swelling with minimal tenderness and fever. The exact incidence of tubercular parotitis is not known. It accounts for 2.5% to 10% of parotid pathologies in different studies [3]. Most of reported parotid swelling in tubercular parotitis is unilateral but bilateral parotitis has also been described. Our patient had unilateral parotid swelling in right side along with right sided isolated lymphadenopathy. Tubercular parotitis may be primary or secondary. Primary tubercular parotitis is rare and occurs as primary disease due to autoinfection from the oral cavity [4]. Tubercular parotitis is more commonly reported secondary to primary focus in the lung as a result of hematogenous or lymphatic spread [4]. We could not ascertain the exact etiology as primary or secondary. We presume it to be secondary in view of childhood exposure to tuberculosis in Indian subcontinent and its reactivation in immune compromised diabetic environment. But since the chest X-ray was normal and there was no chest symptoms, it is difficult to be certain that this is a case of secondary tubercular parotitis. Two clinical forms of tubercular parotitis have been described. Acute tuberculous sialadenitis, presents with diffuse glandular enlargement and often painful. Chronic sialadenitis, manifests as an asymptomatic localized lesion within the parotid gland, slowly growing in size for many years [4]. In our case, the presentation was that of acute painful unilateral

parotitis. Histopathologically tubercular parotitis has been reported to be of two types. The commonest form is localized involvement of intra glandular and peri glandular lymph nodes. There can also be a diffuse form involving the whole or part of parenchyma which may be secondary to the nodal infection [2,3]. Our case was a localized involvement. The role of imaging has often been debated. Ultrasonography of parotid though nonspecific, has often been advocated as an initial screening imaging to rule out unnecessary out of pocket expenditure in costlier imaging and subsequent surgery [5]. Smooth contour of parotid with abscess, without prominent vasculatures, intact capsule and isolated pre auricular lymphadenopathy suggested benignity of the lesion. The patient was initiated on anti tubercular theory and responded well.

Conclusion

Tubercular parotitis is an overlooked entity in the evaluation of patients of acute fever with parotitis. Since it takes few weeks to months for the swelling to occur in the parotid, high index of suspiciousness is required by the clinician. This should always be suspected in a patient of diabetes, chronic renal failure, cirrhosis or immune compromised of any cause. In the presence of a solitary mass in the parotid gland tissue diagnosis remains the cornerstone to differentiate it from other benign and malignant causes. Active consideration of this disease by clinicians will prevent inappropriate treatment and unnecessary surgical intervention.

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