Parotid Gland Tuberculosis: A Case Report

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Abstract Tuberculosis of the major salivary gland is a rare entity. Only 100 cases have been reported so far in world literature, mostly in post parotidectomy specimens. Here we are reporting a case of tuberculosis of parotid gland diagnosed on histological evaluation after surgery.

Keywords Parotid gland · Tuberculosis

Introduction

Despite the fact that TB is a major health problem in developing countries, tuberculosis of parotid glands is rarely encountered. Clinically differentiation between a parotid neoplasm and tuberculosis is difficult and hence the diagnosis is a usually a histological surprise [1, 2]. We report a similar case in which a patient suspected to have an adenolymphoma turned out to be parotid tuberculosis on histopathological evaluation.

Clinical Summary

A 40 years male presented with left parotid swelling since 8 months, which increased gradually, not associated with any other symptoms. On general examination the vital parameters and systemic examination were normal. Local examination revealed a single, irregular shaped swelling of

size 5×6 cms, situated in left parotid region. The surface of the swelling was lobulated with overlying skin normal. The swelling was nontender, firm and mobile. The facial nerve function was normal. There was no cervical lymphadenopathy or any similar swelling on opposite side. Hematological investigations and X-ray chest were normal. FNAC of the swelling showed predominant mature lymphocytes with few glandular epithelial cells with no evidence of malignant cells and giant cells, suggestive of adenolymphoma of left parotid gland. USG showed well defined hypoechoic lesion noted in parotid gland. Parotidectomy was planned. Intra- operative findings showed the swelling arising from superficial lobe of parotid gland, so superficial parotidectomy was done. The facial nerve traced and preserved in its entire course. The excised specimen had firm consistency. The cut surface appeared grayish white with no obvious areas of calcification or necrosis. (Fig. 1) Histological examination revealed tuberculosis of intraglandular lymph node of parotid gland. It showed central caseation and surrounding lymphocytes, Langhan's type of giant cells. (Fig. 2) Based on this report patient was started on antitubercular treatment and is responding well.

Discussion

Tuberculosis has been a challenging problem, not tackled adequately in spite of a strong state run control program. Major salivary glands are rarely affected. First case of parotid gland tuberculosis was reported in 1893 by C De Pauli, and since then only about 100 cases have been reported in world literature [3]. Salivary glands are relatively immune to tuberculosis because of thiocynates ions and proteolytic enzymes like lysozymes, which impart

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Fig. 1 Gross specimen with cut surface

antibacterial property. Continuous flow of saliva which prevents lodging and growth of mycobacteria is also an important inhibitory factor. Tuberculosis of parotid gland is of two types. The commoner type is involvement of intraglandular lymph nodes and the other variety is involvement of parotid gland parenchyma [4]. The way

Fig. 2 Histopathology features suggestive of tuberculosis. Shows Parotid gland tissue (P), Lymph node capsule with sub-capsular lymphoid tissue (Broad arrow), Langhan's giant cell (Thin arrow) and Caseous necrosis (Star)

how the mycobacteria reach parotid gland is still not clear [5]. Various suggested ways are hematogenous spread, autoinoculation with infected sputum and via lymphatic route from cervical lymph nodes [5–7].

It most commonly presents as a localized mass, resulting from infection of intra-capsular or peri-capsular lymph nodes. It may also present as an acute sialadenitis with diffuse gland enlargement or even as a periauricular fistula or an abscess [1].

A case of a parotid swelling is a diagnostic dilemma since we have to differentiate between a neoplasm and an infective lesion like tuberculosis [2]. If we can diagnose tuberculosis clinically or with minimal invasive investigations, potential complications of parotidectomy like facial nerve damage can be avoided. Fine needle aspiration cytology (FNAC) has high sensitivity and specificity in diagnosis of tuberculosis. Specificity can further be increased by doing ZN staining of the fine needle aspirate [1]. A similar case of tubercular parotitis was reported by Suleiman in 2001 where diagnosis was done by demonstrating TB bacilli in the parotid lesion [4]. However if the minimally invasive investigations like FNAC are inconclusive then we have to opt for a surgical procedure. The diagnosis of tuberculosis of parotid gland was done only after histological analysis. This case is similar to a case reported by Watanabe M in 2001 where TB was diagnosed in a patient operated for Adenolymphoma in postoperative histology study [5]. We will like to stress that a high index of suspicion for tuberculosis is necessary in investigating a case of parotid swelling, so that we may be able to avoid parotidectomy with its potential complications. Handa has documented 5 cases of parotid tuberculosis by FNAC which were treated medically [8].

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