Case Report

LINGUAL TUBERCULOSIS

T. Mohanapriya1, K. Balaji Singh1, T. Arulappan1 and T. Dhanasekar3

(Received on 6.7.2011; Accepted after revision on 9.12.2011)

Summary: Oral tuberculosis is very rare and when present they are usually secondary to pulmonary tuberculosis. Tuberculous lesions of the tongue have become so infrequent that they are virtually a forgotten disease entity and may pose a diagnostic problem. The case reported in this paper emphasizes the importance of including tuberculosis in the differential diagnosis of any chronic oral ulcer. The low number of oral infections by M. tuberculosis could be due to underreporting. [Indian J Tuberc 2012; 59: 39 - 41]

Key words: Tuberculosis, Tongue Ulcer.

INTRODUCTION

Tongue tuberculosis is very rarely described in the literature. It was reported that it occurred in only one of 5,094 patients who were diagnosed as having pulmonary tuberculosis. It can be primary with no evidence of involvement of other organs, especially the lungs, or, more commonly, secondary to pulmonary tuberculosis. The intact oral mucosa is believed to be resistant to tubercular infection due to cleansing action of saliva, presence of saprophytes, antagonism of the striated musculature to bacterial invasion and the thickness of a protective epithelial covering. Predisposing factors include poor oral hygiene, trauma, tobacco, irritation, dental extraction, pyogenic foci and leukoplakia.

CASE REPORT

A 33-year-old female patient was admitted to our hospital with a painful ulcer on the tongue. She was also suffering from gradual loss of weight and generalized weakness. There was no history of trauma, toothache, cough, fever, blood stained sputum or night sweats. Physical examination was unremarkable except for the presence of an ulcer of about 2 cm x 3 cm in size over right lateral border of the tongue. Margin of the ulcer appeared to be undermined and base was covered with pale slough (Fig. 1). Teeth adjacent to the ulcer were sharp. On palpation, the ulcer was tender to touch and margin was indurated. Laboratory investigations revealed 10.5 gm haemoglobin, 8100 total leucocyte count and an erythrocyte sedimentation rate of 20 mm/hour. Biochemical parameters were within normal limits. Chest X ray was normal (Fig. 3). HIV test was negative. There was no evidence of another immunodeficiency syndrome. A provisional diagnosis of malignant ulcer was made. A small biopsy from the margin and centre of the ulcer was performed under local anesthesia and sent for the histopathological examination (Fig. 2). Surprisingly, histopathology report revealed feature of granulomatous inflammation with areas of caseation necrosis. The granulomas were composed of epithelioid cells, Langhan’s giant cells and lymphocytic infiltration suggestive of tuberculosis (Fig. 2). As the biopsy report showed tuberculosis, patient was further investigated. Tuberculin test was positive (18 mm infiltration). A week after starting antituberculous therapy (rifampicin 600 mg/day, isoniazid 300 mg/day, pyrazinamide 1500 mg/day, ethambutol 1500 mg/day), the lesions started to regress and the ulcers healed completely in one and a half months.

1. Professor of Surgery 2. Assistant Professor 3. Consultant Pulmonologist & Bronchoscopist
Sri Ramachandra Hospital, Porur, Chennai (Tamil Nadu).
Correspondence: Dr T Mohanapriya, M.S., Assistant Professor of Surgery, Sri Ramachandra Hospital, No.1, Ramachandra Nagar, Porur, Chennai-600116 (Tamil Nadu); Mobile No.: 09884256323; Email: mohanapriyadr@gmail.com

Indian Journal of Tuberculosis
DISCUSSION

According to the views predominating at the world, both primary and secondary tuberculosis of tongue and oral cavity are rare and occur in less than 0.2% of all cases of tuberculosis. Morgagni (1761) described the first case of lingual tuberculosis. Tongue is the most commonly affected structure of oral cavity. Other sites are floor of mouth, palate, gingival, lips, mucobuccal folds, inflammatory foci adjacent to teeth or extraction sites. It may occur as primary or secondary to tuberculosis of other organs. Tubercular infection of the tongue usually occurs due to contact with the infected sputum (Ghose, 1966) but it may also occur by blood spread, lymphatic spread or by direct contamination from the neighbouring tuberculous focus in the oral cavity. Tuberculosis of tongue is more common among males than females. Secondary tuberculosis of tongue is usually observed in patients aged over 30 years. Primary TB, on the other hand, is very unusual and is seen in younger patients; may be associated with cervical lymphadenopathy1,2. Tuberculosis of tongue may occur in various forms as ulcers, nodule, fissures, plaques or vesicles. The other oral manifestations of TB can be indurated soft-tissue lesions or even lesions within the jaw that may be in the form of TB osteomyelitis or simple bony radiolucencies. The lesions are almost always painful. The most frequently occurring lesion is an ulcer, characterized by irregular edges with minimal induration. The base of an ulcer may be granular or covered with pseudomembrane. The dorsal surface of the tongue is affected most commonly followed by the palate, buccal mucosa and lips. The salivary glands, tonsils and uvula also are involved frequently. Secondary lesions of the mandibular ridge (alveolar mucosa) are extremely rare3.

The pathogenesis of oral TB usually is self-inoculation with infected sputum, resulting from the constant coughing up of bacteria that seed themselves in the oral tissue along their line of discharge through the mouth. Haematogenous spread of TB bacteria also occurs. Additionally, direct inoculation of \textit{M. tuberculosis} also has been reported. It is believed that an intact squamous epithelium of the oral mucosa serves as a barrier to the penetration of TB bacilli4,6. This has been attributed to the cleansing action of
saliva; the presence of salivary enzymes, tissue antibodies and oral saprophytes; and the thickness of the protective epithelial covering. However, small tears in the mucosa caused by chronic irritation or inflammation may be favourable sites for the colonization of organisms even if the onset is by hematogenous spread, since injured or inflammed tissues tend to localize bloodborne bacteria. The differential diagnosis of such lesion includes malignancy, foreign body granulomas, major apthus ulcer, syphilis, sarcoidosis and fungal infection. The present patient had only painful ulcer on the tongue and there was no systemic effects of the tuberculosis like cough and haemoptysis. It was suspected that the patient’s sharp teeth caused an ulcer on the tongue which subsequently infected by sputum borne tubercular bacilli. Patients with tongue tuberculosis respond well to antituberculous therapy because tongue is highly vascular. In most cases, tongue lesions heal completely within a few months.

REFERENCES