

## Secondary Lingual Tuberculosis: A Case Report

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### Abstract

A case of secondary tuberculosis of the tongue in a 32 year-old male patient is presented. The histopathological examination of biopsy specimens obtained from this lesion revealed caseating granulomas, leading to a possible diagnosis of tuberculosis. The sputum smear and culture were positive for acid-fast bacilli and the patient was diagnosed as

pulmonary tuberculosis. The involvement of the tongue was thought to be an extrapulmonary manifestation of the pulmonary tuberculosis.

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**Key words:** tuberculosis, tongue

### Introduction

Since the introduction of effective chemotherapy, tuberculous lesions of the oral cavity have become rare (1). We report a case of secondary lingual tuberculosis.

### Case Report

A 32 year-old male was admitted to our hospital with cough, loss of weight, night sweating and had developed an ulcer of the tongue in the past 6 months. Physical examination was unremarkable except for the presence of an ulcer of about 2x3 cm in size over the ventral surface of the tongue near the tip of the left side (Fig 1).

Laboratory investigations revealed 11.9 g/dl haemoglobin, 8100 a total leucocyte count of 8111/mm<sup>3</sup> and an erythrocyte sedimentation rate of 20 mm/hour. Biochemical parameters were within normal limits. HIV test was negative. Chest radiograms revealed bilateral infiltrations (Fig 2). PPD test was positive (18 mm infiltration). Direct examination and culture of the sputum for acid-fast bacilli were positive.

A biopsy from the margin and centre of the ulcer was performed under local anasthaseia. The histopathological examination revealed granulomatous inflammation with areas of caseation necrosis. The granulomas were composed of epithelioid cells and Langhans giant cells.

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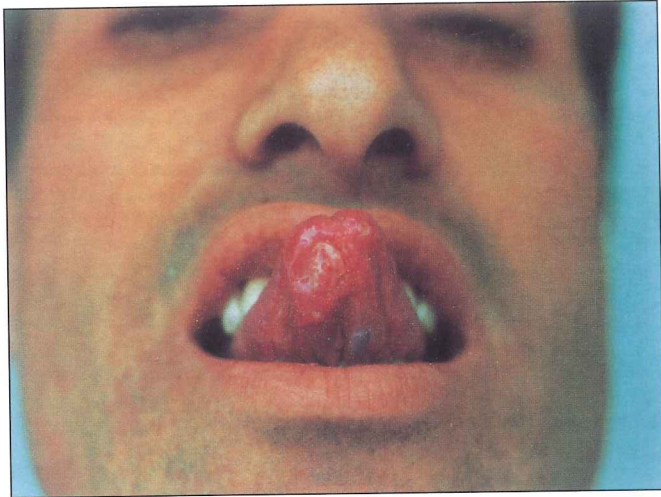


Figure 1. Secondary lingual involvement with tuberculosis

A week after starting antituberculous therapy (rifampin 600 mg/day, isoniazid 300 mg/day, pyrazinamide 1500 mg/day, ethambutol 1500 mg/day), the lesions started to regress. The sputum smear was negative for acid-fast bacilli on the 35th day and the ulcers healed completely in one and a half months.

### Discussion

Tuberculosis is still an important health problem in Turkey. The number of new tuberculosis cases was calculated as 18 418 in 1999 (27 cases per 100 000) The Marmara and Southeastern Anatolia are high risk areas for tuberculosis (2).

Bowen Davis (1971) described three forms of oral tuberculosis; acute miliary, chronic ulcerative and lupus vulgaris. The chronic ulcerating type is always secondary to advanced pulmonary tuberculosis and involves the tongue, affecting an area near its tip (3). Tongue is the most commonly affected structure, but the sublingual area, gingiva, soft and hard palates and lips may also be involved (4). It is assumed that tuberculosis bacilli enter the mucosa through a break in the natural epithelial barrier although the mechanism of inoculation is not clear. The dorsal surface of the tongue is reported as the most commonly involved intraoral site, (5) but in our patient, ventral surface involvement was observed. In the differential diagnosis of an oral ulcer, in addition to intra-oral malignancies, various types of stomatitis, sarcoidosis, syphilis, traumatic injury, aphthous ulcers, foreign body granuloma, mycotic infection and Wegener's granuloma, the possibility of tuberculosis should also be considered. For an unequivocal diagnosis of mycobacterial causation, histopathological and microbiological examination of the biopsy material is of paramount importance (4). In our case also, the diagnosis was verified by biopsy.

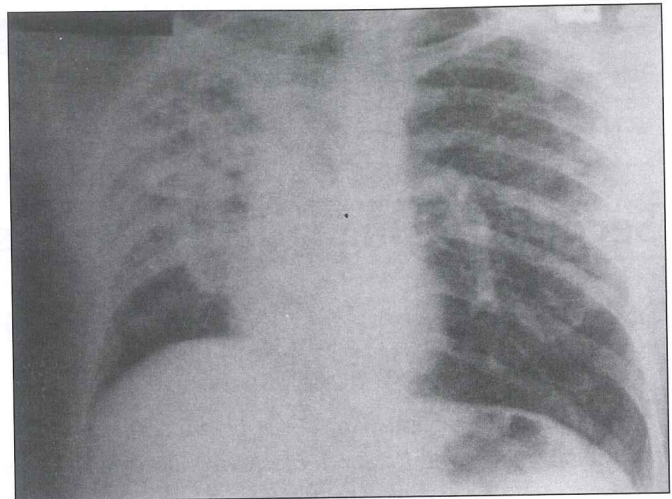


Figure 2. Bilateral infiltrations of case chest radiography

At present, with the decreased incidence of tuberculosis, unusual forms of oral tuberculosis are likely to be missed. Although the pain is greatly reduced within a few days after the introduction of chemotherapy, the ulcerations and fissures usually take a few weeks to resolve (6). In our patient the lingual ulcer healed completely in one and a half months.

A high incidence of oral and pulmonary tuberculosis is reported in HIV infections. Anil et al. presented a case report on such a patient recently (5). In our case the HIV test was negative.

### Conclusion

Tuberculous lesions of the oral cavity 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.

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