Tuberculous ulcer of the tongue: a case report

Dil tüberkülozu: Olgu sunumu

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A 33 year old male patient was admitted to our hospital with painless ulcer on the tongue. The lesion was 2x3 cm necrotic, whitish ulcer on the anterior part of the ventral surface of the tongue. In further investigation pulmonary tuberculosis (Tbc) was diagnosed in the patient. The culture of the biopsy specimen and the sputum revealed acid fast bacilli. The histopathologic examination of the biopsy specimen showed tubercles consisting of epithelioid granulomas with caseous necrosis and Langhans giant cells. The lesion of the tongue was thought to be an extrapulmonary manifestation of pulmonary Tbc. Antituberculous therapy was initiated and the ulcer regressed after 2 months. In the differential diagnosis of non healing oral ulcers, Tbc should also be considered, especially for high risk groups of persons living in a high risk country for Tbc.

Key Words: Oral ulcer/microbiology; tongue diseases/microbiology; tuberculosis, oral/etiology; tuberculosis, pulmonary/complications.

Tuberculosis (Tbc) is a systemic infectious disease of world-wide prevalence, usually caused by inhalation of infected airborne droplets containing the bacillus, mycobacterium tuberculosis. Less commonly tuberculosis is caused by exposure to mycobacterium bovis through ingestion of unpasteurized infected cow’s milk. Although tuberculosis has a definitive affinity for the lungs, it can affect any part of the body, including the mouth. In Turkey, Tbc incidence was %34 in 1999. Extrapulmonary Tbc was %16 of all Tbc forms.[1] Konishi et al.[2] reported a total of 18 cases of tuberculosis of the head and neck (8 of the cervical lymph node, 5 of the larynx, 2 of the salivary glands and 1 each of the hypophar-
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ynx, tongue and middle ear from 1988 to 1997 in his department. In addition, the cases of isolated epiglottic tuberculosis, nasopharyngeal tuberculosis with massive cervical lymphadenopathy and tuberculosis tonsillitis were also reported in literature. The oral cavity lesions are seen as superficial ulcers, patches, indurated soft tissue lesions. Oral tuberculosis lesions may be either primary or secondary. Primary lesions in oral cavity are extremely rare and generally occur in younger patients associated with cervical lymphadenopathy. The secondary lesions, on the contrary, are more common and are seen mostly in older persons. The most commonly affected intraoral structure is the tongue and is usually accompanied by active pulmonary tuberculosis.

We describe a patient with tuberculous ulcer of the tongue secondary to pulmonary tuberculosis. The clinical, radiologic and pathologic features of oral tuberculosis patients are discussed.

CASE REPORT

A 33 year old white man was admitted to our hospital with a painless lingual ulcer that was noticed 4 months previously. His major complaints were weakness and sweating at nights, continuous cough. There was no history of weight loss nor he had pains in his throat or oral cavity. No tobacco or regular alcohol consumption was noted. Oral examination revealed poor oral hygiene, painless, necrotic whitish ulcer on the 1/3 anterior part of ventral surface of the tongue, measuring approximately 2x3 cm (Fig. 1). It was indurated and extending to the underlying structures. The pharynx and larynx were examined and no additional lesions were found. Hemoglobin was 11.6 g/dl, WBC count 10.800/mm³, ESR 52 mm and the purified protein derivative test (PPD) was positive with 18 mm induration. The serum VDRL and ELISA test were negative. A chest roentgenogram demonstrated bilateral extensive infiltrates dense at the apices and with cavities (Fig. 2). An incision biopsy was performed to the ulcer. The histopathological examination revealed a chronic inflammation of the tongue lesion characterized by tubercles consisting of epithelioid granulomas with caseous necrosis and Langhans giant cells (Fig. 3). These features were consistent with a diagnosis of tuberculosis. The direct examination and culture of the biopsy specimen and the sputum revealed acid fast bacilli and mycobacterium tuberculosis, respectively. The patient referred to a clinic for pulmonary evaluation. Antituberculous therapy was initiated and the ulcer regressed after 2 months. The patient was treated with oral rifampicine (600 mg/day), isoniazid (300 mg/day), pyrazinamide (200 mg/day) and ethambutol (100 mg/day) for 2 months and later isoniazid and rifampicine for 7 months. The ulcer regressed after 2 months.

DISCUSSION

Tuberculosis of the oral cavity is seen in 0.05% to 1.5% of the patients with pulmonary tuberculosis.
In autopsy studies it may be found in up to 20%.[10] The tongue is the most commonly affected region. The sublingual area, gingiva, soft and hard palates and lips could also be involved.[7] The oral cavity can show both the primary and secondary types of tuberculosis. In the primary type, the causative organisms are directly inoculated in the oral mucosa of a person who has not had tuberculosis earlier and who has not had acquired an immunity to disease.[11] Unpasteurised milk may be the source of organisms that enter through breaks in the oral or tonsillar mucosa. Mycobacteria in the oral or tonsillar mucosa may pass to the cervical lymph nodes and may be the cause of a mass in the neck.[8] In the secondary type such as in our case, tuberculosis of the oral cavity is usually coexistent with pulmonary disease and is primarily a self-inoculation phenomena via infected sputum.[12] The oral lesion often occurs in association with pulmonary disease. Tutluoglu et al.[13] showed a case of tongue tuberculosis in association with pulmonary disease. Eng et al.[9] showed that 14 of their 15 patients (93.3%) had active pulmonary tuberculosis. But only four of their patients had a history of tuberculosis.

Normally an intact oral mucosa is resistant to invasion by mycobacteria and saliva probably has an inhibitory effect.[10] Poor dental hygiene, carious teeth, sites of chronic irritation caused by dentures and leukoplastic foci are suitable points for implantation of the bacilli in the tissue underneath the disrupted mucosal barrier.[10]

The tongue leads all oral sites of involvement, with the most common regions being the tip, lateral borders, dorsum and base. Tuberculous lesions may be single or multiple, painful or painless and usually appear as irregular, well-circumscribed ulcer.[14] However, they can begin as nodules, fissures, plaques or vesicles. In the differential diagnosis of an oral ulcer, tuberculosis should be considered besides intraoral malignancies, various types of stomatitis, sarcoidosis, syphilis, traumatic injury, aphthous ulcer, foreign body granuloma, mycotic infections and Wegener's granuloma.[10] Early diagnosis is very important to reduce the risk of exposure to the patient's contacts. As soon as the diagnosis made immediate antituberculous therapy should be inititated.

REFERENCES

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