

Primary tonsillar tuberculosis: a case report

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Abstract

A 67-year-old man with an enlarged left tonsil underwent a tonsillectomy for the suspicion of malignancy. He had had a dental extraction six months earlier. Clinical and histopathological investigations established the diagnosis of primary tonsillar tuberculosis.

Key words: Tuberculosis, oral; Tonsil

Introduction

Tuberculosis of the oral cavity is uncommon and pharyngeal lesions are extremely rare (Hashimoto and Tanioka, 1989; Verma *et al.*, 1989; Speert, 1992). Oral cavity tuberculosis may be either primary or secondary; in the secondary type, it is accompanied by pulmonary disease (Hashimoto and Tanioka, 1989) occurring in 0.05–1.5 per cent of such patients (Verma *et al.*, 1989; Adiego *et al.*, 1994). The tongue and palate are the most common sites of involvement for oral lesions whereas tonsillar tuberculosis is a rare localization (Verma *et al.*, 1989). Primary oral tuberculosis lesions generally occur in younger patients, with associated caseation of the dependent lymph nodes (Hashimoto and Tanioka, 1989).

The purpose of this report was to point out that primary tonsillar tuberculosis still exists and to draw attention to the differential diagnosis with malignancy of the tonsils in an older patient. We considered dental extraction as a predisposing factor in this patient with primary tuberculosis of the palatine tonsil.

Case report

A 67-year-old man was admitted to Atatürk University Otolaryngology Department with a two-month history of sore throat. He had no previous history of a serious illness, chronic cough or other chest symptoms. A dental extraction six months earlier was noted.

While the general physical examination revealed normal findings, oral examination showed unilateral left palatine tonsil enlargement with a few white to yellowish plaques on its surface. A chest X-ray showed no abnormalities. The full blood count, urine analysis and serum chemistry studies were normal. Erythrocyte sedimentation rate was 50 mm per hour. The patient had no BCG scar mark and he showed purified protein derivative (PPD) sensitivity.

Because of the suspicion of malignancy, a tonsillectomy was performed. Histology revealed granulomatous structures composed of central caseation necrosis, macro-

phages, epithelioid cells and Langhans giant cells (Figures 1 and 2). Acid-fast bacilli were not detected by Ziehl-Neelson staining. In further investigations, serological tests for AIDS and syphilis were negative. The patient

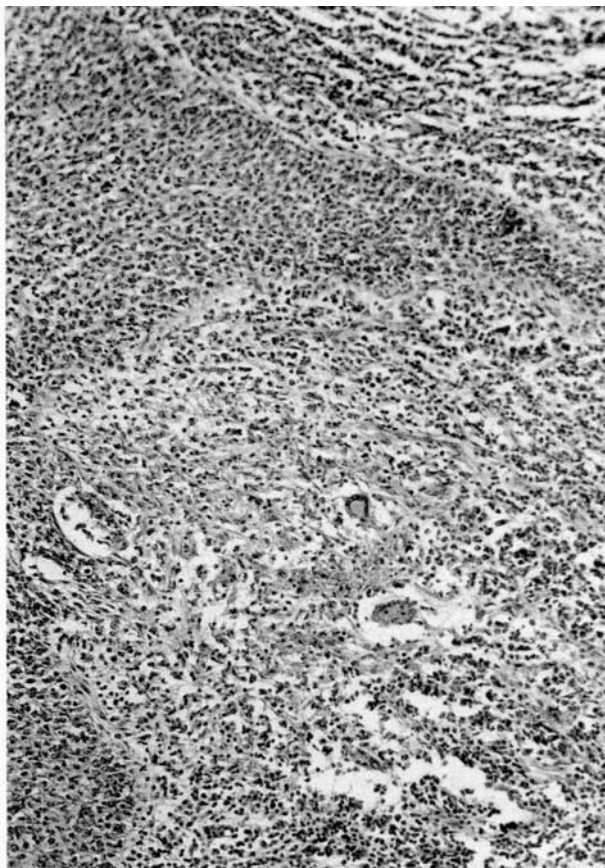


FIG. 1

Epithelioid granuloma with caseation necrosis, mononuclear cells, epithelioid histiocytes and Langhans giant cells beneath the stratified squamous epithelium of the tonsil. (H & E; $\times 100$).

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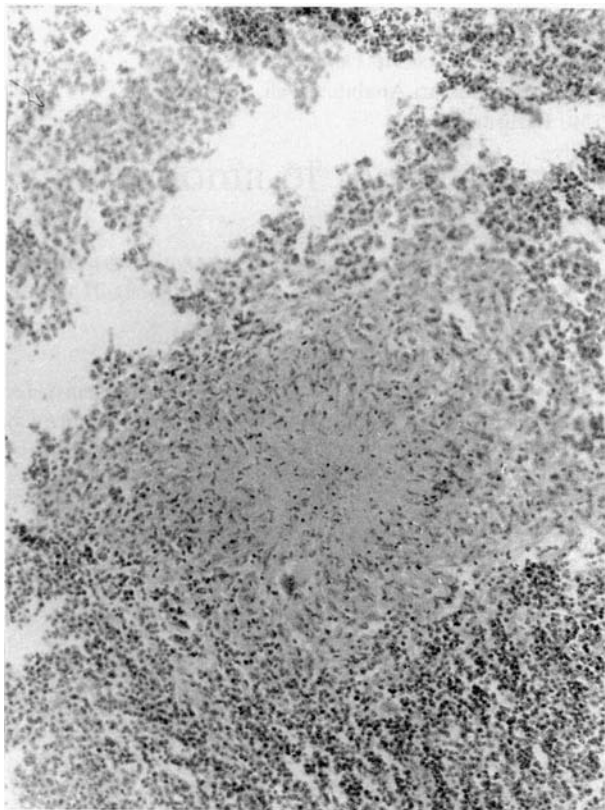


FIG. 2

Photomicrograph of the tonsillar tissue with caseating granuloma including central necrosis, mononuclear cells, Langhans giant cells and epithelioid histiocytes. (H & E; $\times 100$).

was placed on a regimen of Isoniasid (300 mg daily) and Rifampicin (600 mg daily). The patient was free of his symptoms within two weeks after his tonsillectomy.

Discussion

Oral manifestations of tuberculosis are rare and are usually secondary to pulmonary disease (Lathan, 1971). Tuberculosis of a tonsil can result from infection caused by contact with a material containing tubercle bacilli. This route of infection was important when the incidence of bovine tuberculosis was high and milk was not pasteurized (Speert, 1992). The site most involved is the tongue, this is followed by the palate, gums and lips. Although tuberculosis of the tonsil is now an uncommon finding, tonsillar granulomata are occasionally seen by histopathologists and some contain tuberculous organisms.

In patients with poor host reaction due to alcoholism, HIV infection, etc., tuberculosis tends to present in atypical forms, and extrapulmonary localizations are usual (Sunderam *et al.*, 1986; Chaisson *et al.*, 1987; Pedrol *et al.*, 1989; Adiego *et al.*, 1994).

The upper respiratory tract is generally resistant to tuberculosis and saliva is thought to have an inhibitory effects on tubercle bacilli (Verma *et al.*, 1989). Brennan and Vrabec (1970) have attributed this to the cleansing action of saliva. The presence of saprophytes, the antagonism of the striated musculature to bacterial invasions and thickness of the protective epithelial covering are also involved (Brennan and Vrabec, 1970; Rauch and Freidman, 1978).

Predisposing factors for primary oral tuberculosis

include poor dental hygiene, dental extractions, periodontitis and leucoplakia (Lathan, 1971; Verma *et al.*, 1989). Our patient had had a dental extraction six months earlier. Complaint of a sore throat two months after this event is unusual. Smith *et al.* (1982) reported an outbreak of tuberculosis in 15 patients following dental extraction at two community dental clinics. Out of the 15 cases, 13 had oral lesions but none of them presented with pharyngeal tuberculosis. In our patient there was no lesion apparent clinically in the socket of the extracted tooth. Since some investigations demonstrated 20 per cent oral involvement in postmortem studies of patients with tuberculosis but no clinical oral involvement, it is known that a number of cases with oral manifestations of tuberculosis are not diagnosed during routine examination of the oral cavity (Prabhu *et al.*, 1978).

Differential diagnosis of oral and pharyngeal tuberculosis includes traumatic ulcers, aphthous ulcers, Plaut-Vincent's tonsillitis, haematological disorders, actinomycosis, syphilis, midline granuloma, Wegener's disease and carcinoma (Birkholz and Reigler, 1979; Anim and Dawlatly, 1991; Adiego *et al.*, 1994).

Diagnosis of tonsillar tuberculosis is based on histopathological findings and the identification of tubercle bacilli. The purified protein derivative (PPD) test and, for secondary types, chest radiography must be performed. After the diagnosis is established antituberculous therapy is initiated.

In our patient unilateral enlargement of a tonsil evoked the suspicion of malignancy: particularly in older patients this diagnosis must be considered. A sore throat and/or unexplained hoarseness should alert the clinician to the possibility of tuberculosis as a causative factor, especially in underdeveloped countries and in regions where the incidence of tuberculosis is high.

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