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Case report

Oral manifestation of tuberculosis: a case-report

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ABSTRACT

The present case-report describes tuberculosis on the oral mucosa, in a rare manifestation of the disease. The importance of appropriate diagnosis and awareness of the clinical manifestations is highlighted. Oral lesions seem to occur as chronic ulcers, nodular or granular areas, and rare, firm leukoplakia regions. Most extra-pulmonary lesions represent secondary infections of a primary lung infectious focus; therefore, early and accurate diagnosis is required for planning of the best treatment and strategies to control the disease.

Introduction

Tuberculosis (TB) is a chronic infectious disease caused by *Mycobacterium tuberculosis*. Most often it affects the lungs, although some patients present the disease in other organs and systems. Extra-pulmonary TB accounts for 25% of the cases with 10–35% detected in the head and neck region.[1,2] Oral manifestation of TB may affect people of all ages, especially the elderly, and is usually presented as an ulcer. It has been hypothesized that autoinoculation may happen when the infected pulmonary mucus interacts with wounded, susceptible areas of the mucosa, eliciting the emergence of lesions.[3] The present case-report describes oral manifestation of TB in an adult patient.

Case-report

A 61-year-old male patient with a history of smoking habit and alcohol abuse was being followed up for uncontrolled type 2 diabetes mellitus, peripheral neuropathy associated with vasculopathy, systemic hypertension, and chronic pancreatitis in Hospital de Clínicas de Porto Alegre (HCPA), state of Rio Grande do Sul, Brazil. The patient was referred to the Stomatology Unit of the same hospital due to the emergence of lesions on the oral mucosa. Preliminary examination revealed two lesions, each measuring approximately 10 mm across and presenting a granulomatous central portion and whitish halo. The lesions were located on the upper lip mucosa near the median line and on the left jugal mucosa adjacent to

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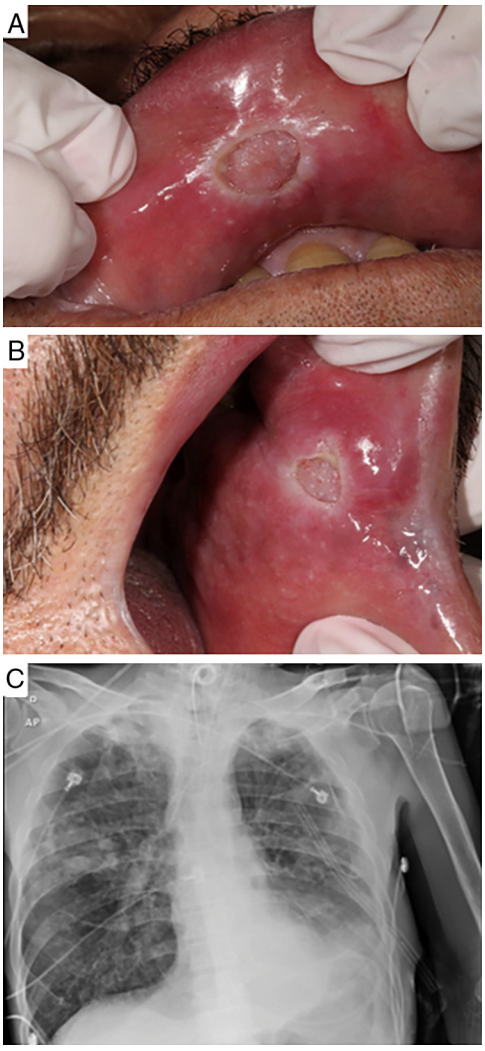

Fig. 1 – Clinical aspects of oral TB lesions and lung radiographic findings. Ulcerative lesions with granulomatous center and whitish halo on the upper labial mucosa near the median line (A) and on the left jugal mucosa, near the labial posterior commissure (B). Full radiograph of the lower left pulmonary lobe. Presence of active disease manifested as budding tree-like centrilobular nodules in both lungs, especially on the right (C).

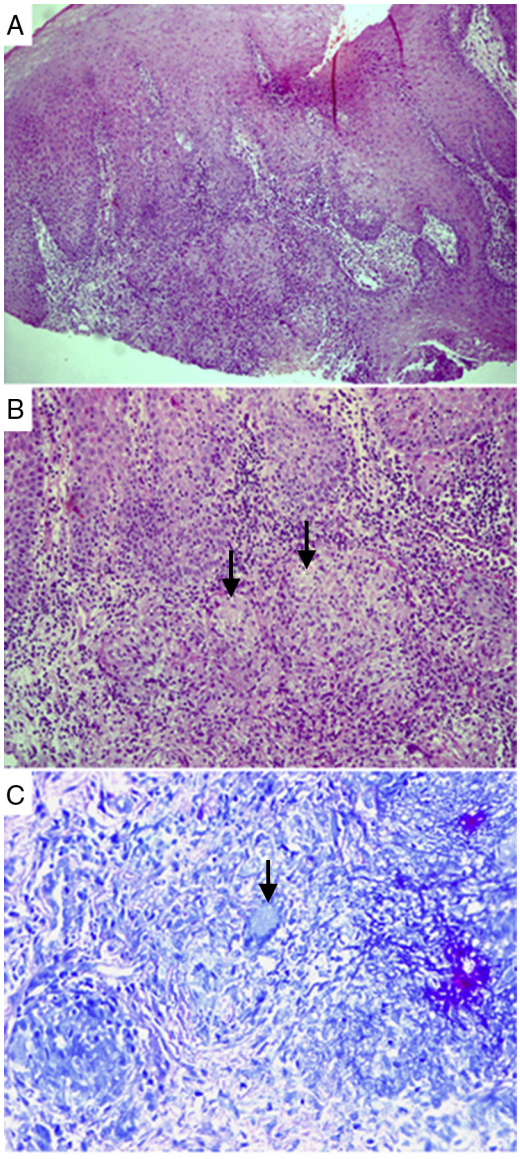

Fig. 2 – Histopathological analysis of a sample collected from oral TB lesions. Granulomas surrounded by intense mixed inflammatory infiltrate, with inflammatory cells inside the epithelium. Hematoxylin–eosin staining, 100× magnification (A). Well-shaped granulomas surrounded by epithelioid histiocytes and inflammatory cells. Arrows indicate incipient necrosis. Hematoxylin–eosin staining, 200× magnification (B). Arrow indicates giant Langhans cell, with nuclei distributed across the peripheral cytoplasm, in a necklace pattern. Langhans cells are typical of TB. Ziehl–Neelsen staining, 600× magnification (C).

the labial anterior commissure (Fig. 1A and B, respectively). The patient complained of pain, productive cough for the past 15 days, night sweats, episodic fever in the morning, and slight weight loss in the previous two months. However, these complaints were intermittently made by the patient along the scheduled appointments, which may have added to the difficulty for an early diagnosis of the disease. Samples of lesions were collected by incision and stained according to the hematoxylin–eosin (HE) and Ziehl–Neelsen (BAAR) protocols. The pathological report was negative for the presence of alcohol–acid resistant microorganisms (Fig. 2). Due to the comparatively low count of microorganisms in the tissues analyzed, the special staining used did not successfully detect the presence of the bacterium. However, since a negative result in this kind of analysis does not rule out TB, a sample of bronchoalveolar lavage was analyzed according to the Ziehl–Neelsen (BAAR) protocol, with a positive result for *M. tuberculosis*. A radiograph of the thorax was suggestive of presence of active infectious disease, manifested as budding tree-like centrilobular nodules in both lungs, especially on the right. In this case report, the pathological analysis of the samples collected from the patient was not conclusive, requiring a Mantoux assay and the investigation of bronchoalveolar