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An Atypical Localization of Secondary Tuberculosis: Buccal Mucosa

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Abstract: Primary and secondary tuberculosis (TB) of the oral cavity is relatively rare and has largely become a forgotten diagnosis in oral lesions. This case report describes a refractory painless oral ulcer as secondary lesion of active primary lung TB in 40 years old patient, who never had any specific symptoms of pulmonary manifestation. The intraoral examination revealed an ulceration that is located in the buccal mucoa extending to the right lip commissure. The presence of tuberculosis was confirmed by histology. We emphasize the importance of considering tuberculosis in the differential diagnosis of oral lesions that affects the mucosa and the importance of early diagnosis and management.
Keywords: Mycobacterium tuberculosis, oral ulcer, buccal mucosa, extrapulmonary.

INTRODUCTION

Tuberculosis (TB) is a chronic infectious disease caused by Mycobacterium tuberculosis. It affect commonly the lungs, although it can affect any part of body. Extra-pulmonary TB accounts for 25% of the cases with 10–35% detected in the head and neck region [1,2].

The oral localizations of tuberculosis are very uncommon. They are found in 0.05% to 5% of tuberculosis cases [3-5]. They occurs frequently as a secondary infection following pulmonary tuberculosis, it can also occur as a primary infection without involving other organs.

Oral tuberculosis may pose a diagnostic problems, because the diagnosis on the basis of clinical signs and symptoms alone can be difficult and is often not considered in the differential diagnosis of other oral lesions and conditions that TB lesions can mimic suh as neoplasic, inflammatory and traumatic lesions. The histo-pathological study and Bacteriological analysis are importants, making it possible to specify the nature of the lesions.

The aim of this article was to report a case of non healing tender ulcer of tuberculosis localized on buccal mucosa in immunocompetent patient, wich allowed to reveal the primary site in lungs, and to emphasize the importance of early diagnosis and management.

CASE REPORT

A 40 years old man was refered to our departement for complaint of painful, progressive, and non healing ulcerated lesion of buccal muccosa since 6 weeks. He was repeatedly treated in a local hospital with topical antiseptics and oral antibiotics and analgesics but the lesion did not subside. He presented weight loss, anorexia, generalized weakness and fever. He was a chronic smoker, with no family history of infectious diseases. He did not give a history of traumatic lesion, similar lesion in the past, cough, hemoptysis or night sweats or others symptoms.

Clinical examination revealed poor oral hygiene and diffuse ulcerative and irregular lesion on the right buccal mucosa, that extending to the right lip commissure (Figures 1). On palpation, the lesion was tender with indurated margin and it did not bled on touch. Flexible nasopharyngolaryngoscopy of the nose and larynx were unremarkable There were no lymphe nodes in the examination of the neck.

The biological exams previously done, including treponemal serology and HIV test were negative. The complete blood count showed no specific particularity. Biopsy was done from the lesion under topical anaesthesia. Histopathology examination revealed feature of granulomatous inflammation containing large langhans giant cells and caseous necrosis suggestive of tuberculosis.

Patient was referred to a pneumologist to rule out pulmonary tuberculosis after this unusual diagnosis of the oral tissue. The chest X-ray revealed the presence of active infectious disease, manifested as budding tree-like centrilobular nodules in right lungs. Sputum was analyzed according to the Ziehl–Neelsen (BAAR) protocol, with a positive result for Mycobacterium Tuberculosis. The patient was treated by anti-tuberculotics therapy (isoniazid, rifampicin, pyrazinamideand ethambutol are given for two months, followedby isoniazid and rifampicin for four months). The evolution was favorable, at the end of treatment, there was no evidence of residual ulcer at buccal mucosa.

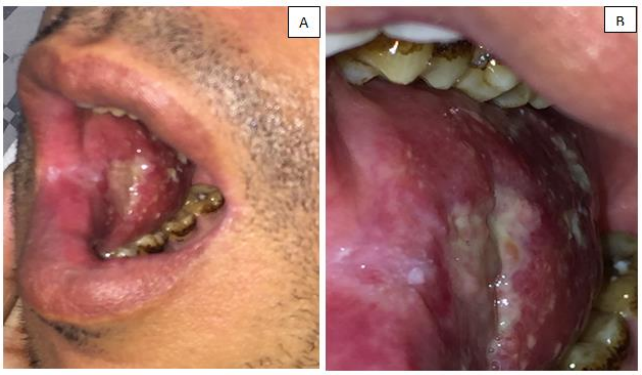

Fig-1 (A and B): diffuse ulcer involving the right buccal mucosa and extending to lip commissure

DISCUSSION

Tuberculosis is a major public health problem in Morroco, with a reported incidence of 89 cases per 100000 habitants [6]. It is also a major cause of morbidity and mortality worldwide. The disease declined sharply in the early 1980s but resurged due to a combination of factors such as the HIV epidemic, increased immigration from countries with endemic tuberculosis, transmission of tuberculosis in crowded or unsanitary environments, and a decline in health care infrastructure [7, 8].

Although there has been an increase in the incidence of extrapulmonary TB due to rare clinical presentations, it is still an underdiagnosed entity. Head and neck tuberculosis are commonly presented by cervical lymph node localisation [9]. Oral TB is very an unsual condition.

The most common site for oral TB is salivary glands, follwed by the tongue [5]. Other sites include the soft palate, hard palate, lip, cheek, tonsils, gingiva, floor of the mouth, uvula, and alveolar mucosa [5, 10].

Tuberculosis of the oral cavity can be primary or secondary. Secondary tuberculosis to these areas is usually due to pulmonary infections through the contaminated sputum during caughing or hematogenous or lymph spread In its primitive form: the bacillus is inoculated directly into the oral mucosa by inhalation of microdroplets of infected saliva or contact with tuberculous lesions of the skin, usually associated with And lymphadenopathy satellite, that can be single or multiple, with variable size [2,5,8].

Systemic and local factors also play an important role in the development of oral lesions. Examples of systemic factors are immunosuppression and the increase in virulence of pathogens.In turn, the list of local factors includes poor oral hygiene, local trauma, chronic inflammations, smoking, tooth eruption,surgical lesions, periodontal disease, caries with pulp exposure,cysts, and tooth abscesses wich prepare the ground for implantation.

The clinical manifestations of oral tuberculosis are not specific. The most frequently described clinical aspect is a chronic oral ulceration, painful with irregular edges. The others aspect that can be found are nodule, fissure, tuberculoma, or granuloma lesions [5, 8].

The differential diagnosis of TB ulcers includes a variety of ulcerative diseases and conditions, such as squamous cell carcinoma, trauma ulcers, aphthous stomatitis, syphilis ulcers, actinomycosis, Wegener's granulomatosis, sarcoidosis, leishmaniosis, zygomycosis, and Hansen's disease [11].

Only bacteriological and histopathological study, can clarify the tuberculous lesion by highlighting an epithelioid granuloma giant cell with caseating. Biopsy of ulcerated lesions should include deeper tissue as the superficial biopsy may lead to inconclusive diagnosis such as chronic non-specific inflammation.

Also, histopathological examination is mandatory to eliminate association with malingnant lesion. The coincidence of tuberculosis and cancer is remarkable in the head and neck region [9].

Bacteriological exam revealed traces of mycobacterium tuberculosis, The classical method consists in the detection of bacilli Acid-resistant organisms (AFB) by microscopic examination (After

Ziehl- Neelsen staining) or culture on Lowenstein-Jensen medium (results after 2-4 weeks)[9]. New methods lead to better results rapidly like liquid-based radiometric detection, techniques of hybridization with specific nucleic probes, gene amplification by PCR.

Once the diagnosis is reached, administration of antitubercular therapy can completely eradicate the tubercular lesions whatever the location [11].

CONCLUSION

In conclusion, tuberculosis still remains a problem and must be taken into consideration in the diagnostic process. Despite being a rare manifestation of tuberculosis, oral lesions should be included in differential diagnosis of lesions in the oral cavity in general, especially for lesions not responding to conventional treatment, or for lesions with biopsy negative for malignancy.

Through our report , we emphzise the importance of early diagnosis of a tuberculous lesion and the search for a primary site of the disease even in the absence of pulmonary symptoms, this may lead to earlier treatment, thus preventing further dissemination of disease.

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