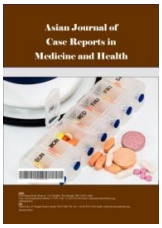

Asian Journal of Case Reports in Medicine and Health

5(3): 6-9, 2021; Article no.AJCRMH.67751

Tuberculosis of the Oral Cavity Revealing Pulmonary Tuberculosis: About an Observation

A. Raihane[1*], Y. Oukessou[1], S. Rouadi[1], R. Abada[1], M. Roubal[1] and M. Mahtar[1]

[1]Department of Neck Surgery, Ibn Rochd University Hospital, Faculty of Medicine and Pharmacy, Hassan II University, Casablanca, Morocco.

Authors' contributions

This work was carried out in collaboration among all authors. Author AR designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors YO and SR managed the analyses of the study. Authors AR and MR managed the literature searches. All authors read and approved the final manuscript.

Article Information

Editor(s):
(1) Dr. Hab. Mariusz Cycon, University of Silesia, Poland.
Reviewers:
(1) Pakpoom Phoompoung, Mahidol University, Thailand.
(2) Eckart Haneke, Germany.
Complete Peer review History: http://www.sdiarticle4.com/review-history/67751

Case Study

Received 20 February 2021
Accepted 27 April 2021
Published 01 May 2021

ABSTRACT

Tuberculosis of the oral cavity is a rare entity, often secondary to pulmonary localization. This article reports a case of palatine tonsil tuberculosis, indicative of miliary pulmonary tuberculosis, in a 40-year-old patient who has as history of an actif smoking, alcoholism, without any notion of previous tuberculosis infection. The clinical manifestations of oral tuberculosis are not very specific. It most often results in a chronic oral ulceration that evokes many other etiologies among which a malignant tumor, a bacterial, viral or mycotic infection, a systemic disease, a foot-and-mouth ulcer or traumatic. Any chronic oral ulceration whose etiology does not appear obvious, one must think of tuberculosis of the oral cavity. To confirm this diagnosis, histopathological examination, direct bacteriological examination and culture from fresh tissue as well as search for pulmonary tuberculosis are necessary.

Keywords: Tuberculosis; oral cavity; lung; diagnosis.

**Corresponding author: E-mail: adil.raihane720@gmail.com;*

1. INTRODUCTION

Tuberculosis, which is considered primarily a lung condition, can be of interest to any other part of the body, including the oral cavity [1-2]. However, oral localization is rare, accounting for less than 1% of all TB cases [3]. It is often linked to pulmonary tuberculosis [1], a potentially contagious and deadly disease.

This article reports a tuberculosis on the palatine tonsil revealing pulmonary tuberculosis in order to raise awareness of the diagnosis of oral localization of tuberculosis.

2. CASE REPORT

A 40-year-old man consulted in the Service ENT and facial surgery of the CHU Ibn Rochd Casablanca (Morocco) for tonsillar ulceration Fig. 1. The lesion had been discovered two months before by the patient and had not regressed after treatment with chlorhexidine and amoxicillin for 10 days. The patient reported asthenia, dysphagia due to pain on swallowing, cough, fever and weight loss.

In the patient's history, there was smoking (30 pack years), chronic alcoholism and the absence of a notion of tuberculosis. The oral examination showed an ulceration of the right tonsil, painful on palpation, not hemorrhagic, with irregular edges, clean and grainy background; oral hygiene was very bad. At the auscultation, crackling rattles were noted in both lung fields. The rest of the examination was without particularities: in this case, the patient had a good general condition and there was no palpable cervical lymphadenopathy.

Histopathological examination revealed a giganto cellular epithelium granuloma with caseous necrosis. Direct bacteriological examination of fresh tissue from ulceration showed acid alcohol-resistant bacilli (BAAR) and culture identified *Mycobacterium tuberculosis*. The diagnosis of tuberculosis of the oral cavity was then evoked, which motivated the search for other locations. Pulmonary tuberculosis was confirmed by nodular opacities in both pulmonary fields Fig. 2, the presence of BAAR in direct bacteriological examination of sputum and the identification of Mycobacterium tuberculosis in sputum culture. The assessment did not find any other locations; serology for HIV infection was negative. Diagnosis of tuberculosis of the oral cavity secondary to pulmonary tuberculosis was retained.

The patient was treated with isoniazid, rifampin, ethambutol and pyrazinamide for two months, then isoniazid and rifampin for four months. The evolution was marked by the healing of the ulceration, the normalization of images on chest radiography, the negativity of bacilloscopy of sputum and the absence of relapse of the disease, eight months after the end of treatment.

3. DISCUSSION

Tuberculosis in the oral cavity is rare, accounting for less than 1% of all TB cases [3]. In addition to tonsils, other locations include tongue, oral floor, gums, palate and lips [3-4].Tuberculosis

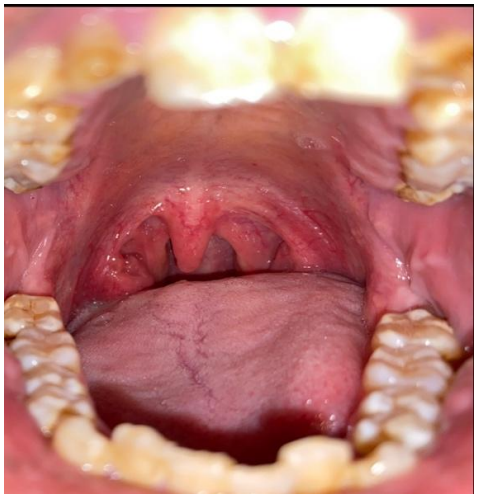

Fig. 1. Right chronic palatine tonsil ulcer with undermined edges

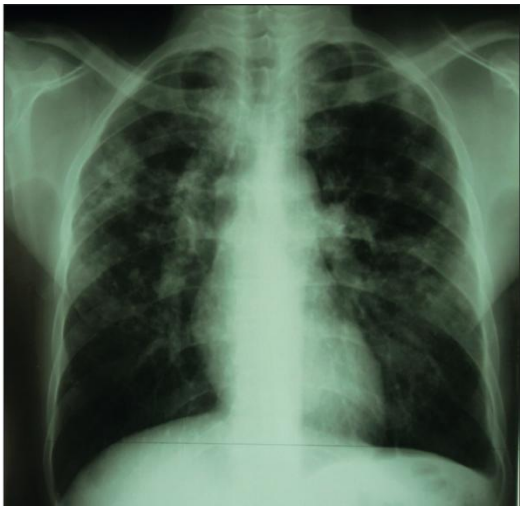

Fig. 2. Chest radiograph showing disseminated opacities of pulmonary tuberculosis

of the oral cavity may be primary or secondary to pulmonary localization [1,5]. From the pulmonary focus, the tuberculosis bacillus spreads to the oral mucosa through cough or blood-borne sputum [2,6]. The inoculation of the infectious agent to the mucous membrane and the development of tuberculosis of the oral cavity are favored by the failure of local mechanisms of defense against infection that are tissue antibodies, saliva, commensal oral flora and oral mucosa [7-8]. Failure of the physical barrier of the oral mucosa may be aided by poor oral hygiene and smoking [7-8] as in this observation. Trauma, inflammation of the oral mucosa or tooth extraction may also be contributing factors [7].

Clinical manifestations of oral cavity tuberculosis are not specific [1,4]. Chronic oral ulceration, such as that presented in this observation, is the most common sign [4]. It is classically a unique lesion, with irregular edges, not responding favorably to antibiotics as in this observation. In addition to tuberculosis, such ulceration may evoke a malignant tumor (squamous cell carcinoma, lymphoma), a bacterial infection (syphilis), a viral infection (cytomegalovirus, HIV), a mycosic infection (histoplasmosis), a system disease (Behçet's disease, sarcoidosis, Wegener's disease), aphthoid ulceration (giant aphthosis, necrotic ulceration) or traumatic ulceration [2]. Squamous cell carcinoma can be suspected especially if the patient has a history of smoking [9], or even alcohol-smoking as in the reported case. The existence of known pulmonary tuberculosis or an evocative context of active pulmonary tuberculosis may point to the tuberculosis etiology of ulceration [4,10]. They were not present in the reported case and it was oral tuberculosis that led to the discovery of pulmonary tuberculosis. Histopathological examination and direct bacteriological examination of a biopsy of the lesion can quickly point to the diagnosis of tuberculosis of the oral cavity [1,11].

When oral tuberculosis is suspected, diagnosis is made on the basis of carefully collected medical history which includes general and local symptoms as well as other patient's complaints. It is important to take into account the symptoms helpful to differentiate oral TB from other entities in which they are also present, i.e. fever, lymph nodes enlargement, cutaneous changes, gastro-intestinal disorders, chronic cough, excessive fatigue [12-13].

The histopathological study shows a specific inflammation, suggestive of mycobacterial infection and eliminates cancer. Direct bacteriological examination after Ziehl-Neelsen staining can confirm mycobacterial infection by showing BAAR but it has value only when it is positive. Culture and PCR, which are more sensitive than direct bacteriological examination, can also link mycobacterial infection to tuberculosis and determine its susceptibility to anti-tuberculosis. However, cultivation is long and PCR is not routinely practised in low-resource countries. These diagnostic constraints and the usual susceptibility of oral cavity tuberculosis to anti-tuberculosis drugs [1-2] justify the presumptive treatment of the disease on the basis of histology and direct bacteriological examination.

4. CONCLUSION

Although rare, tuberculosis of the oral cavity should be evoked before any chronic ulceration whose etiology does not appear obvious. To make the diagnosis, a histological examination, a direct bacteriological examination and a culture from the biopsy of the lesion as well as a search for pulmonary tuberculosis should be done.

CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline patients consent and ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

RÉFÉRENCES

1. Ito FA, de Andrade CR, Vargas PA, Jorge J, Lopes MA. Primary tuberculosis of the oral cavity. Oral Dis. 2010;11:50-3.
2. Vidal M, Delevaux I, André M, Marroun I, Gavet F, Voinchet H, et al. Tuberculose disséminée révélée par une localisation linguale. Rev Med Int. 2007;28:124-6.
3. Chauhan V, Mahesh DM, Panda P, Mahajan S, Thakur S. Tuberculosis cutis orificialis (TBCO): a rare manifestation of tuberculosis. J Assoc Physicians India. 2012;60:126-7.
4. Kakisi OK, Kechagia AS, Kakisis IK, Rafailidis PI, Falagas ME. Tuberculosis of the oral cavity: a systematic review. Eur J Oral Sci. 2010;118:1-9.
5. Peck MT, Stephen LX, Marnewick J, Majeed A. Palatal ulceration as the first sign of pulmonary tuberculosis: a case report. Trop Doct. 2012;42:52-3.
6. Rodrigues G, Carnelio S, Valliathan M. Primary isolated gingival tuberculosis. Braz J Infect Dis. 2011;11:172-3.
7. Iype EM, Ramdas K, Pandey M, Jayasree K, Thomas G, Sebastian P, et al. Primary tuberculosis of the tongue: report of three cases. Br J Oral Maxillofac Surg. 2009;39:402-3.
8. Pekiner FN, Erseven G, Borahan MO, Gümrü B. Natural barrier in primary tuberculosis inoculation: oral mucous membrane. Int J Tuberc Lung Dis. 2006;10:1418.
9. Elfahsi A, Elayoubi A, Boulaadas M, Nazih N, Essakali L, Kzadri M. Tuberculose buccale: À propos d'un cas. Med Buccale Chir Buccale. 2007;13:83-86.
10. D'Elbee JM, Bernard N, Vandenhende MA, Lacoste D, Bonnet F, Michaux C, et al. Ulcération linguale avec dysphagie à l'origine du diagnostic d'une tuberculose pulmonaire. Med Buccale Chir Buccale. 2012;18:39-43.
11. Yepes JF, Sullivan J, Pinto A. Tuberculosis: Medical management update. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2008;98:267-73.
12. Klepacz J, Peterson R, Kurnatowska AJ. Tuberculosis in oral cavity – a case report [Polish] Porad Stomatol. 2008;8:169–72.
13. Michalak A, Wojtas G, Kidawa I, et al. Tuberculosis of tongue in patient with disseminated pulmonary tuberculosis [Polish] Pneumonol Alergol Pol. 2004;72:28–31.

Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sdiarticle4.com/review-history/67751