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### *Oral tuberculosis. Case report*

Tuberculosis (TB) is a chronic granulomatous disease caused by *Mycobacterium tuberculosis*, *M. bovis*, *M. africanum I*, *M. africanum II*, *M. azjaticum*. According to the WHO, TB kills approximately 3 million people each year. The global epidemic is growing and becoming more and more dangerous. Although rare in industrialized countries, oral manifestation has become relatively uncommon and can create problems with correct diagnosis and treatment.

Dentist as a specialist in oro-facial field can be the first on the patients' diagnostic path who can meet with the problem of the oral TB ulceration, and it is important to become familiar with the symptoms of TB. Here, we describe a case of oral secondary tuberculosis, and subsequently diagnosed active lung tuberculosis.

#### PATIENT AND METHODS

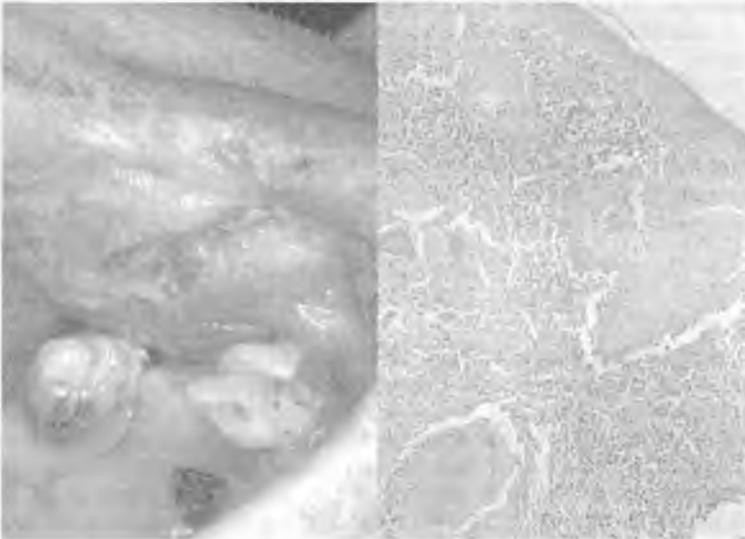


Fig. 1. Oral ulceration of the right buccal mucosa, before antituberculosis treatment

Fig. 2. A typical granuloma under buccal epithelium, with epithelioid histiocytes and giant cells  
(magn. approx. 100x)



Fig. 3. Postero-anterior chest radiograph with miliary mottling in lungs, before anti-TB treatment  
 Fig. 4. Oral mucosa after 4 months of antituberculosis treatment. Healed mucosa with a scarring in a place of ulceration

A 47-year-old patient was referred to the Clinic of Oral and Maxillofacial Surgery with ulceration of the right buccal mucosa shown in Figure 1, and enlarged right submandibular and cervical lymph nodes. The patient had noticed first symptoms of oral ulceration 2 months earlier. he also suffered with chronic nonproductive cough for 4 months. There was no history of any facial or oral trauma. The biopsy of buccal mucosa was taken and showed acid-fast bacteria and a subepithelial granuloma with Langhans giant cells (Figure 2). Chest X-ray showed bilateral nodular opacification and consolidation, chronic alterations suggesting TB or sarcoidosis (Figure 3). The patient was referred to the pulmonary clinic, where diagnosis of TB was confirmed by culture of *M. tuberculosis* from sputum samples. After 4 months of therapy with Rifampicin, Isoniazid, Ethambutol and Pyrazinamide, oral ulceration was healed, which is shown in Figure 4, however the patient continued treatment with anti-TB agents.

## RESULTS AND CONCLUSIONS

Only 0.1–1% of all clinical presentation of TB manifests as secondary oral TB (3). Although rare, TB should be taken into consideration in differential diagnosis of oral ulcerations out of aphthous, traumatic and syphilitic ulcers, as well as malignancy and fungal infections (5). Biopsy specimen should be taken, however, histopathological manifestation of granulomatous lesion from biopsy and culture of *M. tuberculosis* from sputum sometimes may be negative, additional polymerase chain reaction (PCR) DNA assay should be taken as an essential for detecting *M. tuberculosis* in oral samples (1, 4, 5). This method, fast and very sensitive can be used as definitive test in doubtful cases or just to confirm the diagnosis stated on traditional methods.

Chest X-ray examination also should be taken, however, tuberculous lesion in the mouth may be either primary, or secondary to pulmonary TB (4, 5). In primary oral TB there might be no radiological evidence of pulmonary TB, as well the sputum culture's positive result may be the consequence of collecting a specimen from oral-located lesions (2).

Physicians should always keep in mind the possibility of oral lesion as the first visible symptom of TB. Initial presentation of oral TB can be a warning sign of active pulmonary TB, and should initiate appropriate diagnostic approach and anti-TB treatment. In treatment the most important is to eliminate primary infection and improvement of oral cavity and dentition conditions.

#### REFERENCES

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#### SUMMARY

Tuberculosis (TB) is a chronic granulomatous disease caused by *Mycobacterium tuberculosis*, *M. bovis*, *M. africanum I*, *M. africanum II*, *M. azjaticum*. According to the WHO, TB kills approximately 3 million people each year. Lung tuberculosis is the most common form of TB. Oral manifestation has become relatively uncommon and can create problems with correct diagnosis and treatment. The aim of this study was to describe a case of oral secondary tuberculosis, and subsequently diagnosed active lung tuberculosis.

#### Przypadek pacjenta z gruźlicą jamy ustnej

Gruźlica jest przewlekłą chorobą zapalną wywołaną przez *Mycobacterium tuberculosis*, *M. bovis*, *M. africanum I*, *M. africanum II*, *M. azjaticum*. Według danych WHO gruźlica zabija około 3 mln ludzi każdego roku. Postać płucna jest najpowszechniejsza. Postać w obrębie jamy ustnej jest relatywnie rzadka i dlatego może stwarzać problemy diagnostyczne. W pracy przedstawiono przypadek pacjenta z gruźlicą jamy ustnej, u którego w trakcie postępowania diagnostycznego stwierdzono czynną postać płucną gruźlicy.