Oral manifestation of lepromatous leprosy: diagnosis and management

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A 40-year-old man complained about having asymptomatic non-healing oral ulcers for the past 6 months. His familial and medical histories were unremarkable; serological tests were negative for HIV. Physical examination revealed soft, pink granulous lesions involving the upper lip (Fig. 1a) and anterior edentulous alveolar ridge (Fig. 1b). There were also shiny patches on the skin of the back, chest, abdomen, and upper and lower limbs (Fig. 1c). A provisional clinical diagnosis of granulomatous disease (such as paracoccidioidomycosis, syphilis, leishmaniasis, tuberculosis and histoplasmosis) was raised, and an incisional biopsy of the oral lesion was performed. Histopathologic sections stained with hematoxylin and eosin (H&E) revealed epithelial hyperplasia and intense poorly defined granulomatous chronic inflammation with rare giant cells in the lamina propria, without signs of necrosis (Fig. 2a, b). Ziehl–Neelsen staining ($\times 400$) showed numerous acid-fast bacilli arranged in globi (Fig. 2c). The qPCR test confirms the presence of the *Mycobacterium leprae* DNA in this sample.

In light of these symptoms, the patient has been diagnosed with multibacillar/lepromatous leprosy. The patient has been treated with dapsone, rifampicin, and clofazimine for 12 months; the oral and cutaneous lesions have been in

persistent remission after treatment. Oral leprosy is very uncommon and is largely unknown to most clinicians. As herein reported, clinicians must include it in differential diagnosis of oral granulomatous lesions, and special care must be taken, since these oral lesions could be the first manifestation of systemic disease involvement [1–4]. Incisional biopsy of oral lesions associated with special staining and qPCR investigation were useful and necessary to confirm leprosy diagnosis, prognosis, and treatment [1].

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Fig. 1 **a** Painless dry ulcer on the upper lip covered with black necrotic material. **b** An asymptomatic, pink granulomatous lesions involving anterior alveolar gingiva. **c** Hypopigmented patched lesions in the skin of the upper limb

Fig. 2 **a** Histological section stained with H&E ($\times 40$) showed sub-epithelial inflammatory infiltrate. **b** Dense infiltrate of prominent vacuolated-foam macrophage, occasional lymphocytes and rare

Langhans-type giant cells could be seen without the typical granuloma arrangement (H&E, $400\times$). **c** Ziehl-Neelsen staining ($\times 1000$) showed numerous acid-fast bacilli arranged as globi