Keratoacanthoma is a lesion typical crater, symmetrical, rounded, rapid growth with high potential for self-involution. The lesions may be multiple, disseminated and associated with some syndromes. The etiology of keratoacanthoma is not known, but it is often observed in patients chronically exposed to sun. Histopathological features of keratoacanthoma may resemble those of a well differentiated squamous cell carcinoma. The hallmark of the disease is spontaneous resolution after an intermediary stationary stage. The majority of the cases is treated by surgical excision. For this reason, very few cases have been documented until resolution, which constitutes the gold standard for this clinic diagnosis. The aim of this article is to report a case of keratoacanthoma in the inferior lip of an immunosuppressed patient.

Key words: keratoacanthoma, lip, mouth mucosa, immunosuppression.

INTRODUCTION

Keratoacanthoma is a crater lesion, rounded, fast growing and high potential for self-involution (1, 2). The first description of this disease is attributed to Hutchinson in the end of nineteenth century (3). However, the term keratoacanthoma was determined in 1949 by Rook and Whimser (4). The etiology of keratoacanthoma is unknown, and many factors are likely involved in its pathogenesis (5-8). This lesion that usually affects the sun-exposed skin can also arise in vermilion lip and oral mucosa (9-12). Both clinical and histopathological features of keratoacanthoma may resemble those of a well differentiated squamous cell carcinoma (5, 6). The distinction between squamous cell carcinoma and keratoacanthoma has been a matter of discussion since the first descriptions of this disease (1). Many laboratorial techniques have been used to differenti-
cough, weakness, weight loss, asthenia and severe diarrhea. His HIV infection was discovered in 1998 and he has made use of antiviral therapy irregularly. The patient's medical history included pulmonary tuberculosis in 1998 and toxoplasmosis in 2005 which were treated. Actually, he has made abusive and frequent use of alcoholic substances. The patient rarely exposes to the sun and he worked in a printing ink handling.

Investigations revealed normal liver and kidney function tests and blood sugar levels; complete hemogram showed leucopenia; erythrocyte sedimentation rate: 47 mm; and HBsAg was reactive. The CD4 count was 5 cells/μL and viral load was 12,811. The X-ray chest (PA view) was normal.

Intraoral physical examination revealed actinic cheilitis, coated tongue, periodontitis and residual tooth roots. Furthermore, a rounded lesion covered by a slightly brownish crust in the vermilion of lower lip (Figure 1). During palpation, the lesion showed edges slightly raised and hardened. According to the patient, this lesion appeared three months ago. The lesion was painless and the only discomfort was due to aesthetic reasons. The patient said he had tried to remove the lesion with his fingers several times. Others similar lesions had appeared and disappeared in the skin of the neck, legs and right arm. No regional lymph node involvement was found. The clinical features of the lesion reinforced two diagnostic hypotheses: oral squamous cell carcinoma or keratoacanthoma.

During the surgical excision, the lesion was widely excised with a margin of the approximately 1 cm, and the specimens were examined histopathologically. Keratoacanthoma was diagnosed following histopathological examination of the excisional biopsy specimens. The histopathologic examination revealed an epithelial proliferation that showed hyperkeratosis, elongated rete ridges (some presenting a droplet shape) dyskeratosis, basal cell nuclear hyperchromatism, conspicuous nucleoli, and increased mitotic activity with normal morphology, and no loss of basal membrane (Figure 2). Laterally, the lip epithelium could be observed at the boundary between the lesion and the normal surface epithelium (Figure 3). Epithelial islands were intermingled with the underlying connective tissue and were accompanied by mild chronic inflammatory infiltrate, reminding a pseudoepitheliomatous hyperplasia. Furthermore, some areas of basophilic change were identified in the lamina propria too. Based on the histopathological features described above was given the diagnosis of keratoacanthoma. Seven days ago, the suture was removed and the result was cosmetically satisfac-

**DISCUSSION**

Keratoacanthoma is an epithelial neoplasm which occurs on sun-exposed hair-bearing skin.
The cell of origin is assumed to be within the pilosebaceous unit (18). The term was suggested by Rook and Whimster to distinguish these lesions from squamous cell carcinomas (1). Cutaneous keratoacanthoma may be solitary or multiple and present as keratotic, painless nodules that rapidly develop over 4–9 weeks and resolve spontaneously after a few months, with scarring (17). In this case report, a keratoacanthoma was diagnosed in the vermillion of the lower lip. Keratoacanthomas located on the vermilion border of the lip probably arise from hair follicles in the adjacent skin. Although this is a benign neoplasm and the possibility of auto-regression, the lesion was located in a region of the face which caused discomfort to the patient. Thus, surgical removal of the lesion under local anesthesia was recommended.

Keratoacanthomas represent approximately 1% of skin malignancies treated in the United States (19). This condition still must be considered an important lesion because is often associated with immunosuppressed patients (8). However, any lesion in immunocompromised individuals must be immediately excised. Furthermore, suspected solitary cases that fail to respond within 4 to 8 weeks demands obligatory surgical excision (17). Recently, the association of keratoacanthoma with tattoos has been reported (20–22). No tattoos was found in this patient, however, he worked every day through the manipulation of paint in a graphic. Thus, although no evidence of ink has been observed within the lesion, one cannot rule out the possibility of environmental exposure is associated with keratoacanthoma of the case.

The distinction between keratoacanthoma and squamous cell carcinoma has been a matter of discussion since the first descriptions of this condition (1). Histologically, keratoacanthoma resembles squamous cell carcinoma and, although histopathological differentiation may sometimes be difficult, the biologically benign course of keratoacanthoma allows clear distinction from the latter (6). According to Cribier, Asch and Grosshans (15), the best criterion in favor of keratoacanthoma is the presence of a epidermal lip (sensitivity 83.9% and specificity 85.8%), and the best criterion in favor of squamous cell carcinoma was the presence of more than two mitoses for high-power field (sensitivity 68% and specificity 93%). All histopathological findings observed (arciform disposition, epithelial lip, keratin-filled crater, sharp outline stroma) in this case were consistent with the diagnosis of keratoacanthoma.

CONCLUSION

Keratoacanthoma is a lesion with unique clinical features but unfortunately makes it very similar to squamous cell carcinoma. A detailed study of histopathological features still remains the most recommended diagnostic feature, especially in those cases where surgical removal is important for aesthetic reasons.

CONFLICT OF INTEREST

All authors disclose that there was no conflict of interest that could inappropriately influence in this report of case.

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Received: 21 04 2011
Accepted for publishing: 20 06 2013