## Actinic cheilitis or squamous cell carcinoma of the lip? Practical recommendations on how to avoid a trap

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Actinic cheilitis (AC) is a chronic condition that usually develops in patients with cumulative sun damage<sup>1</sup>. It affects both men and women and is frequently seen in elderly individuals who seek medical help for the treatment of other dermatologic diseases<sup>1-3</sup>. In daily practice, most of these patients complain of signs of photodamage, like dyschromia in photoexposed body areas, telangiectasias, solar lentigines, xerosis, and elastosis, but they hardly ever mention cutaneous alterations of their lips.

The clinical features of AC are mostly seen in the lower lip due to continuous exposition to ultraviolet radiation, which, in turn, allows for a wide range of clinical signs, varying from persistent areas of dryness to overt atrophic changes, ill-defined vermilion border, edema, and focal hyperkeratosis<sup>2</sup>. Advanced lesions of AC may exhibit ulceration and crusting, pointing to a possibly not yet diagnosed skin cancer<sup>4</sup>. In fact, in spite of its premalignant nature, AC still represents a neglected condition in individuals with cutaneous photodamage, both from the patients' and the attending physician's perspectives.

As for any other photoinduced skin disorder, the level of sun exposure during a patient's lifetime may contribute to the development of a skin cancer from preexisting lesions of AC<sup>4,5</sup>. It is especially true for patients who live in tropical global areas, such as in Brazil, where the warm weather encourages people to have outdoor activities during several months of the year, either for leisure or for working needs.

The potential for evolving into invasive squamous cell carcinoma (SCC) is higher for AC than that for classic actinic keratosis<sup>6</sup>. Nonetheless, the investigation of malignant transformation from AC is not standardized and answers to questions such as when a lip biopsy is warranted are incompletely found in the literature.

A better understanding of the indications for surgical approach in patients with AC is also important because malignant transformation may cause textural and color changes in

the lips<sup>7</sup>. These changes may ultimately be misinterpreted as being features of alternative conditions, such as lupus erythematosus, oral lichen planus, and even other primary lip diseases like plasma cell cheilitis and cheilitis glandularis<sup>2</sup>.

It is unanimous in the literature that every patient who presents with AC that cannot be clinically differentiated from SCC of the lip should have their lips biopsied<sup>2</sup>; however, few authors aimed at putting together such surgical recommendations that would help general practitioners get better decisions in their daily practice.

A lip biopsy should not be routinely performed in patients who display pure signs AC. In contrast, it is not expected from patients with AC to display persistent hyperkeratosis or nodular areas on physical examination, since both represent suspicious signs for SCC<sup>1</sup>. The presence of persistent ulceration, especially if lip hydration and lip sun protection are guaranteed, should also be carefully evaluated and considered for biopsy<sup>6</sup>. A summary of additional indications for lip biopsy, as mentioned by other authors, are displayed in table 1<sup>1,8-10</sup>.

**Table 1.** Clinical recommendation for lip biopsy in patients with the diagnosis of actinic cheilitis.

Vieira et al.¹	<ul><li>In the presence of lip textural changes to the touch.</li><li>If the semimucosa appears thickened.</li></ul>
Sarmento et al. <sup>8</sup>	<ul> <li>After failure of conservative treatment.</li> <li>When actinic cheilitis is small and amenable to complete surgical excision.</li> <li>In the presence of ulcerations, atrophy, or nodules.</li> </ul>
Lopes et al. <sup>9</sup>	<ul> <li>After failure of conservative treatment.</li> <li>If there is clinical suspicion of malignancy.</li> <li>To determine the degree of epithelial dysplasia with respective follow-up.</li> </ul>
Seoane et al. <sup>10</sup>	<ul> <li>When a clinical diagnosis of malignancy is suspicious.</li> <li>When clinical changes or signs of suspicion for malignant.</li> <li>Transformation is detected during follow-up (at any time point).</li> </ul>

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Another point of discussion for patients with the diagnosis of AC is whether to perform a punch biopsy or an elliptical incision. Even though there is no contraindication for the first, it seems that the latter is more appropriate since microscopic changes that are suggestive of SCC may be unevenly found in different areas of the lips, making a precise diagnosis more complicated from the examination of a little cutaneous specimen<sup>11</sup>.

Finally, the diagnosis of AC is made on clinical grounds, but ruling out malignant transformation depends on histopathology. Being aware of early clinical signs of malignant transformation is a key point to the correct diagnosis and management of such patients.

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