

## Keratoacanthoma: To Excise or Not to Excise?

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### ABSTRACT

#### Background

Although surgical excision is considered the gold standard for management of keratoacanthoma, there is lack of consensus regarding its best management options. This confusion originates due to the few number of reports describing keratoacanthoma cases. This report presents a case of keratoacanthoma that was managed using the conservative choice. A 49-year-old woman presented with a disfiguring exophytic mass at her lower lip that enlarged continuously over 3 weeks' time. The patient had no significant medical, dental or family history or lymphadenopathy. The midline of the lower vermilion border showed a solitary soft sessile dome-shaped papule that was covered by non-keratinized mucosa with a central keratin plug at the top. The lesion was managed conservatively with favorable outcomes. The self-healing potential of the lesion provides amazing results. When signs of regression are seen, conservative approach is advised.

**Keywords:** carcinoma; lip; neoplasm; spontaneous regression; squamous cell.

### INTRODUCTION

Keratoacanthoma represents a lesion of jeopardizing nature.<sup>1</sup> It shows close clinical and histopathological resemblance to squamous cell carcinoma (SCC).<sup>2,3</sup> Yet, its prognosis differs greatly. Some reports describe its tendency to resolve spontaneously with no need for any intervention; while others report its rare malignant transformation.<sup>1,4</sup> Therefore, its management is a confusing issue: should the physician wait and see, considering the risk of malignant transformation or the risk of misdiagnosis of SCC; or should it be excised for safer outcomes, accepting the possibility of postoperative recurrence or scarring?<sup>5</sup> This decision is not easy to reach as the lesion is under-reported in literature owing to its misdiagnosis or its spontaneous regression before its diagnosis.<sup>1</sup> The low number of reports impair the ability to fully understand the most common course of the disease and its exceptions. Therefore, this report presents a case of keratoacanthoma that was managed in an extreme conservative way; showing its outcome.

### CASE REPORT

A 49-year-old female patient presented with a disfiguring swelling at the lower lip. It progressed gradually over 3 weeks, where it started as a big plaque, that became bloody, then increased in height, afterwards stayed stationery in size and stopped bleeding forming a crust on its surface. The patient had no significant medical, dental or family history. Extraoral examination showed no lymphadenopathy. In the midline of the lower vermilion border, a solitary well defined circular soft sessile dome-shaped papule of a diameter 0.7 cm was identified. The swelling was not fluctuant and non-tender. The covering mucosa showed non-keratinized surface with a keratin plug at the top of the dome of the papule (Figure 1).

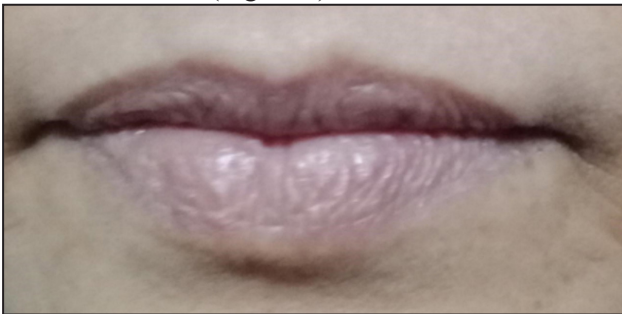


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**Figure 1. Clinical pictures of the vermilion border from (a) a frontal view and (b) a lateral view.**

Differential diagnosis included keratoacanthoma (KA), squamous cell papilloma, basal cell carcinoma and squamous cell carcinoma. After obtaining a written informed consent, close follow up was chosen to determine the behavior of the lesion, either progression or regression. The lesion regressed gradually and finally disappeared completely after 3 months; proving the lesion was the self-limiting keratoacanthoma (Figure 2).



**Figure 2. Clinical picture after 3 months of follow up.**

## DISCUSSION

Although called “self-healing squamous cell carcinoma”, KA is considered on the border between benign and malignant lesions.<sup>1</sup> It is commonly confused with SCC; while it is considered by some as a benign variant of SCC.<sup>4,6</sup> The characteristic clinical feature of the lesion is its spontaneous regression.<sup>4</sup> Unlike the herein reported 49-year-old female, KA most commonly affects males in the age group of 65 to 71 years and targets sun-damaged skin.<sup>1</sup> However, as in the presented patient, solitary KA on the face represents the most prevalent form; especially on the lower lip.<sup>2</sup> Typically, it follows a triphasic course through a period of weeks to months. It starts by the proliferation phase where a papule grows in size till reaching 1-2 cm in diameter

with shiny epidermis and central keratotic plug. Then, it passes through stabilization phase in which it reaches a plateau. And finally, the regression phase witnesses the fragmentation of the keratin plug leaving a crater appearance; then the reduction in size and complete healing with a pitted scar.<sup>1,6-8</sup> Beside its rapid triphasic course and evidence of regression, KA is diagnosed based on its crateriform shape and histopathological examination of an adequate biopsy specimen. For the specimen to be informative, total or partial excision should be performed to include the sides and the center of the lesion; otherwise, the lesion can be misdiagnosed as SCC.<sup>1</sup> Unless clear signs of regression are observed, the “wait-and see” strategy is not advised.<sup>1</sup> Surgical excision is considered the gold standard for KA management to avoid its transformation into SCC or its healing into a disfiguring scar.<sup>6</sup> Thereafter, close follow up is mandatory to detect postoperative scarring or recurrence due to koebnerization at the site of excision. So, the treatment outcomes should be judged beforehand as surgical excision may give poorer results than normal healing.<sup>1</sup> The lesion may also be treated using intralesional injection of methotrexate or 5-fluoro-uracil. Other options include photodynamic therapy, cryotherapy, radiotherapy, ablative laser therapy or deep curettage.<sup>4,9</sup> The choice of the most suitable treatment should be based on the size of the lesion, its type, location, number and the anticipated side effects.<sup>4</sup> Choice of conservative management necessitates close follow up each 2 weeks to monitor the regression of the lesion or any unfavorable clinical change.<sup>6</sup> In the presented case, the lesion was already in the plateau phase after a rapid progressive phase, so conservative approach was chosen. As incisional biopsy was previously reported to induce scarring after the lesion’s regression<sup>2</sup>, the biopsy was postponed in our case till the lesion’s size change was detected to avoid unnecessary scarring. Finally, the lesion healed perfectly with no scarring caused by the lesion healing; or iatrogenically. It healed after 4 months of the initial presentation of the lesion. This healing period coincides with the range of previous

studies that used conservative management; where complete healing was observed within 8-40 weeks.<sup>2</sup>

## CONCLUSIONS

Keratoacanthoma can be misdiagnosed as SCC and so, over-treated causing avoidable functional and

esthetic impairment. Caution is advised in judging the condition. However, if the lesion is in the plateau or regression phase, conservative management is preferred.

**Conflict of interest:** None

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