SKIN

BRIEF ARTICLE

A Case of Cutaneous Metastatic Tonsillar Squamous Cell Carcinoma in a Female

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ABSTRACT

Cutaneous metastatic tonsillar squamous cell carcinoma (SCC) is extremely rare and carries a poor prognosis. To our knowledge, only 8 cases of cutaneous metastatic tonsillar SCC previously have been reported in the English literature. Here, we present the third case of a female with cutaneous metastatic tonsillar SCC.

INTRODUCTION

Cutaneous metastases in patients with squamous cell carcinoma (SCC) of the head and neck are rare and develop in 1-2.4% of these cases.[1] Tonsillar SCC is a minority of head and neck cancers, making up approximately 10% of cases.[2,3] To our knowledge, only 8 cases of cutaneous metastatic tonsillar SCC previously have been reported in the English literature.[1-7] Here, we present the third case of a female with cutaneous metastatic tonsillar SCC.[3,6]

CASE REPORT

A 46-year-old female presented to the dermatology clinic with a mass on her left lateral neck. She had a past medical history of tonsillar SCC of her left neck, which was HPV 16 positive, that was diagnosed and surgically excised with clear margins approximately two years previously. She additionally received radiation therapy to the left neck after surgery. She had associated lymphadenopathy at the time of diagnosis that gradually resolved.

She was in remission and subsequently developed a small, nontender mobile nodule on her left neck approximately one and a half years after the diagnosis of her tonsillar SCC. Over the next six months, the lesion increased in size. The lesion ulcerated and also started leaking clear, yellow fluid that became cloudy over time within two months of being noticed by the patient.

Physical examination revealed a firm violaceous plaque with ulceration on the patient's left lateral neck (Fig. 1).

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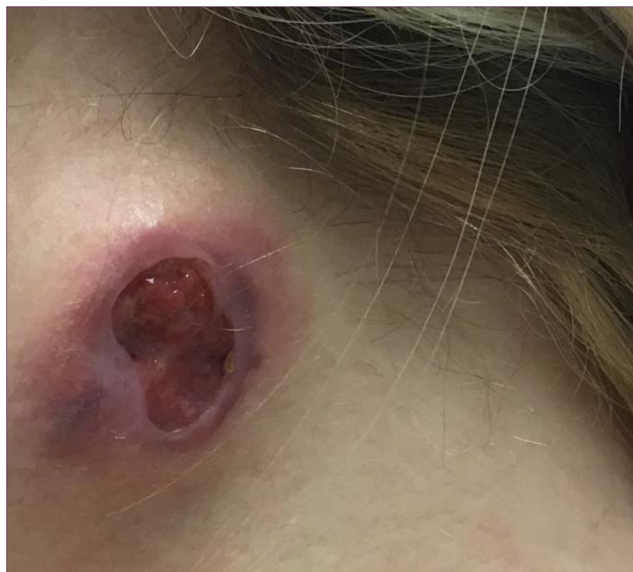

Figure 1. Cutaneous metastatic tonsillar SCC. Physical examination demonstrated a firm, non-fluctuant violaceous nodule that was 9 by 3.5 cm with ulceration (with approximately a 2.5 cm diameter) on the patient's left lateral neck.

Histopathological examination demonstrated deep, focal areas of squamous differentiation that were not contiguous with the epidermis (Fig. 2).

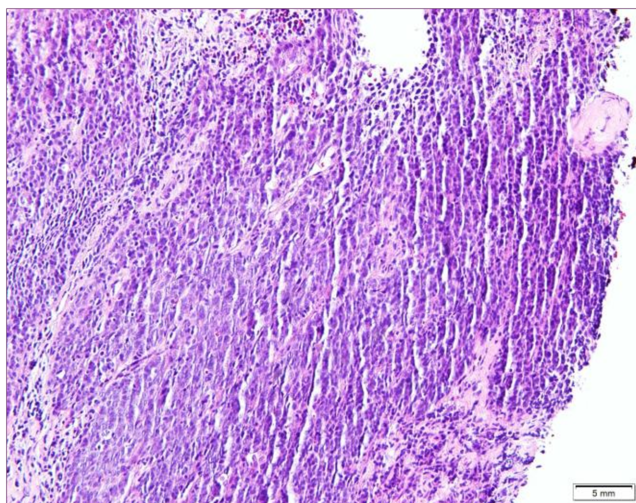

Figure 2. Cutaneous metastatic tonsillar SCC (H&E). Histopathological examination demonstrated deep, focal areas of squamous differentiation with a distinct basaloid morphology that were not contiguous with epidermis. There was no contiguity with the underlying tonsillar tissue that had been completely excised two years previously.

There was no contiguity with the underlying tonsillar tissue that had been completely excised two years previously. The cells had a distinct basaloid morphology suggestive of either neuroendocrine carcinoma or possibly a metastasis of the patient's known tonsillar SCC. Immunohistochemical staining for cytokeratin was positive (Fig. 3), and stains for cytokeratin-20 and INSM-1 were negative, ruling out neuroendocrine carcinoma and favoring a basaloid SCC, likely a metastasis from the patient's tonsillar SCC.

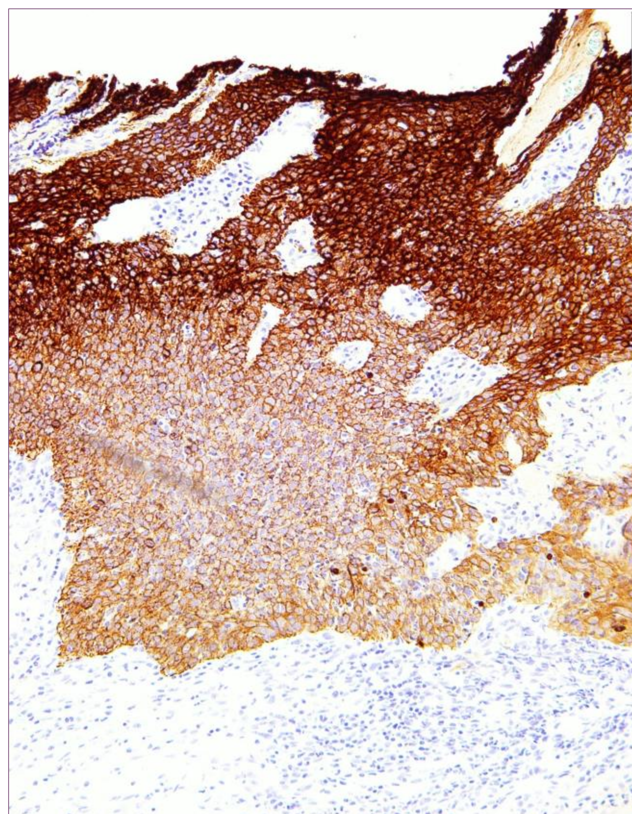

Figure 3. Cutaneous metastatic tonsillar SCC (Cytokeratin). Immunohistochemical staining for cytokeratin was positive, consistent with a diagnosis of basaloid SCC from the primary tonsillar SCC that metastasized to the skin.

Staining for p16 was negative. The slides from the needle biopsy of the patient's primary tumor were obtained and also showed a basaloid morphology in addition to the squamous morphology, confirming the

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diagnosis of metastatic tonsillar SCC. The patient was referred to surgical oncology for further management.

DISCUSSION

Cutaneous metastatic tonsillar SCC is extremely rare and carries a poor prognosis.[2,4,8] In a retrospective review by Yoskovitch et al,[8] the average survival time for patients with skin metastases in SCC of the head and neck was 7.2 months. Risk factors for tonsillar carcinoma include alcohol, smoking, and human papillomavirus (HPV) infection.[1,2,8] Basaloid SCC tends to metastasize, and 6 of the 8 reported cases of metastatic tonsillar SCC have occurred in males.[1,2,4-7]

The clinical presentation of cutaneous metastatic tonsillar SCC varies widely and may be the first evidence of recurrent malignancy.[1,8] Clinical presentations have included erythematous patches, papules, plaques, nodules, and swelling of the scalp.[1,3] The surface of these lesions may be intact or ulcerated.[3] A previously reported case of a female with cutaneous metastatic tonsillar SCC presented with an erythematous and indurated plaque of the left eyelid, with a monocle clinical pattern, which resolved after chemotherapy.[3]

In cases of SCC of the head and neck that are recurrent or metastatic, HPV positivity is a favorable prognostic factor.[1] Radiation, chemotherapy, and surgery are palliative treatment options.[1,6] One patient had resolution of her skin metastasis with combined therapy of cetuximab, carboplatin, and fluorouracil.[3] Another case described clinical resolution of cutaneous lesions, which demonstrated high expression of PD-L1, and improvement on imaging (positron emission tomography/computed tomography) of metastatic lymph nodes with nivolumab therapy.[1]

CONCLUSION

With the small number of reported cases of cutaneous metastatic tonsillar SCC, information regarding optimal treatment of patients is limited, although HPV testing may be useful to guide treatment decisions.[1]

Abbreviations Used: Human papillomavirus (HPV), squamous cell carcinoma (SCC)

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