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Pink nodule of the chin: an unusual presentation of metastatic carcinoma

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Abstract

Renal cell carcinoma (RCC) is the most lethal urological tumor, often because it is widely metastasized at the time of diagnosis. There are reports of cutaneous metastases, most commonly to the head and neck, presenting late after RCC is diagnosed. This case presentation explores a 45-year-old female patient with a growing skin lesion on her chin, previously treated as an epidermoid cyst before presenting to dermatology clinic. We present a case of cutaneous metastatic clear cell renal cell carcinoma presenting 7 years after initial diagnosis.

Keywords: metastasis, oncology, renal cell cancer

Introduction

Renal cell carcinoma (RCC), a highly lethal urological tumor, is the third most common cause of metastases to the head and neck [1,2]. Metastases to the skin are uncommon, but well documented, presenting in approximately 4.6 % of patients with metastatic RCC [3]. The most common locations for cutaneous metastases are the scalp followed by the face. Additionally, these lesions typically present as a reddish blue nodule [4]. We present a patient with a remote history of RCC who presented with a rapidly growing chin nodule.

Case Synopsis

A 45-year-old woman presented with a four-month history of a painful, bleeding chin nodule. It had previously been treated with warm compresses and antibiotics by her primary care provider. Owing to continued growth and ulceration, she had also presented to an urgent care clinic, where the lesion was incised and drained. Because this nodule continued to grow, she presented to our dermatology clinic with a 0.8×0.9×0.7cm pink exophytic somewhat friable nodule overlying a 1.5×1.8cm fluctuant but firm subcutaneous nodule on the right chin (**Figure 1**). Of note, the patient had a remote history of RCC that was diagnosed and treated 7 years prior with a nephrectomy and inferior vena cava thrombectomy with no evidence of disease recurrence since then. The considered differential diagnoses included pyogenic granuloma, Kaposi sarcoma, bacillary angiomatosis, and pseudolymphoma.

Excisional biopsy was performed and histopathology demonstrated an epithelial neoplasm in the dermis, formed by nests of clear cells with prominent

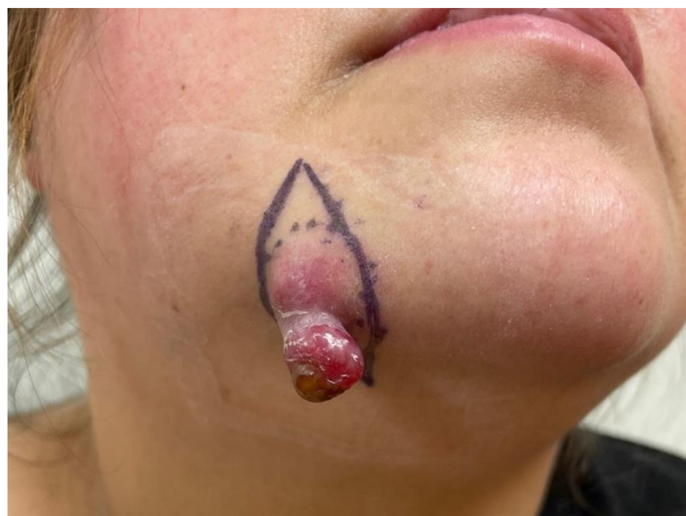

Figure 1. *Pink, exophytic nodule with indurated subcutaneous mass on the right chin.*

vasculature in the stroma **Figure 2**. These findings were consistent with metastatic clear cell renal cell carcinoma. After consultation with an oncologist, the patient was found to have no other tumor burden upon computed topography (CT) scan of her chest, abdomen, and pelvis. Magnetic resonance imaging (MRI) of the brain and lumbar spine were also unrevealing of any tumors. The patient subsequently underwent wide local excision of the tumor by an otolaryngologist. Pathology demonstrated residual tumor within the specimen but all margins were clear of tumor. She was seen in dermatology clinic three months later for total body skin exam, with no evidence of other metastases.

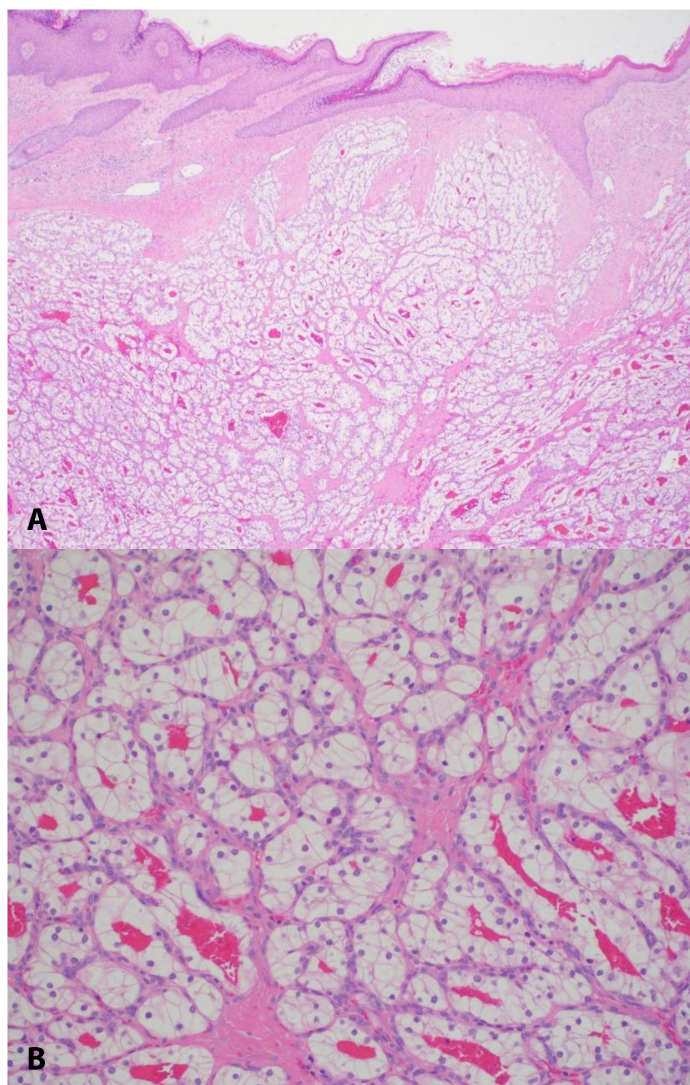

Figure 2. ***A)*** *H&E histopathology. Scanning magnification reveals an epithelial neoplasm situated in the dermis, formed by nests of clear cells. (Hematoxylin and eosin, 20×.* ***B)*** *Higher power magnification reveals nests of epithelial cells with clear cytoplasm, distinct membranes, and prominent blood vessels in the stroma, 200×.*

Case Discussion

There are several unique findings in this case of cutaneous metastatic clear cell RCC. Previous reports indicate that cutaneous metastases normally occur within 6 months to 5 years from initial diagnosis [1, 5]. In this case, the lesion presented 7 years after initial diagnosis, outside the typical recognized range. Secondly, 6% of cutaneous metastases in men are caused by RCC, whereas only 0.5% of cutaneous metastases in women are due to RCC [5]. Finally, the chin is a poorly documented site of cutaneous presentation of RCC, with only two cases in the searchable literature despite the face and scalp being the two most common sites of metastases [6,7]. As in this case presentation, there are many cases of cutaneous metastases presenting specifically after nephrectomy [6,8]. Cutaneous metastases are often a sign of a poor prognosis, signaling concomitant visceral metastases in up to 90% of patients [9]. In our case, no organ metastases were noted. In conjunction with urology, oncology, otolaryngology, and dermatology departments, the plan going forward will be serial skin examination and imaging. Medical genetics performed testing for the Von Hippel Lindau gene, which was negative.

Conclusion

Metastatic renal cell carcinoma often presents as a violaceous nodule on the scalp, face, and, rarely, the chin. It is important to maintain a high index of clinical suspicion for skin metastases in patients with any history of RCC including a remote history. Because skin metastases are often associated with a poor prognosis, a thorough evaluation for other visceral metastases should be performed.

Potential conflicts of interest

The authors declare no conflicts of interest.

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