Cutaneous finger and tongue metastases in renal cell carcinoma

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DESCRIPTION

A 54-year-old man with metastatic, undetermined subtype, renal cell carcinoma (mRCC), chronic obstructive pulmonary disease, hypertension and diabetes mellitus presented with dyspnoea and increased oxygen requirement of 5 days duration. At baseline, he required 2 L of oxygen due to pleural carcinomatosis and lymphangitic spread of disease. On presentation, he was tachycardic at 121 beats per minute, hypertensive and afebrile, and saturating at 95% on 3 L/min of oxygen. Examination was notable for new hyperaemic pustules on his fingertips, resembling a pyogenic granuloma (figure 1), and an indurated, papillary growth on his tongue (figure 2). A complete blood count and comprehensive metabolic profile were within normal limits. A CT of the chest showed a new moderate right-sided pleural effusion. The differential diagnosis included an immune-related

Figure 1 Hyperaemic pustule on the finger resembling a pyogenic granuloma.

Figure 2 Tongue lesion which developed while on nivolumab.

Figure 3 Shave biopsy of the finger showing histology consistent with metastatic renal cell carcinoma.

adverse event from prior checkpoint inhibitor therapy or related to progression of disease. Dermatology was consulted, which performed a shave biopsy of his finger lesion. Pathology was morphologically consistent with mRCC (figure 3). Ten months prior to this admission, the patient was diagnosed with RCC with metastases

Patient's perspective

I am frustrated that my cancer is not slowing down with the chemotherapy. My doctor is going to try some other chemotherapy regimen to see if that works. The bumps on my fingers and tongue are inconvenient, but I am just happy that I can still play with my son at home. I hope that my cancer can be cured one day.

Learning points

- ▶ The pattern of metastatic spread of renal cell carcinoma is variable and can include the skin and the tongue.
- ▶ Cutaneous lesions may resemble common dermatological lesions such as a pyogenic granuloma.
- ▶ Biopsy is warranted to help guide therapy and confirm the diagnosis.
- ▶ Single cutaneous lesions may be treated with resection or radiotherapy.
- ▶ Multiple metastatic cutaneous lesions require therapy with an angiogenesis and multiple kinase inhibitor.

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to the lung and bones. The patient had a short response to cabozantinib and progressed through nivolumab as second-line therapy. These skin and tongue lesions developed while on nivolumab. He is currently undergoing therapy with everolimus and lenvatinib, with regression of both skin and tongue lesions noted after 3 weeks of therapy.

Cutaneous metastasis of renal cell carcinoma is rare, occurring in approximately 1%–3% of cases.¹ Koga and colleagues² observed that the most common sites for skin metastasis were the trunk (40%), scalp (25%) and face (9%). The prevalence of tongue metastases is estimated to be 0.17%.³ Similarly, metastasis to the distal extremities is also rare and represents <0.2% of all metastatic lesions.⁴ Although single skin lesions may be treated with either surgical resection or radiotherapy in some cases, metastatic lesions typically require systemic therapy with an angiogenesis/multiple kinase inhibitor.^{5 6} Our patient had multiple lesions on his fingers and on his tongue, which would likely have caused disfigurement if treated with resection. Instead he was treated with the angiogenesis inhibitor everolimus and multiple kinase inhibitor lenvatinib with promising results. The case is an important reminder to consider the embolic phenomena of mRCC.

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