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# Renal Cell Carcinoma Presenting as a Tongue Lesion

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Renal cancers account for about 3% of all adult malignancies, with renal cell carcinoma (RCC) being the most common. RCC has many diverse manifestations often with non-urologic features<sup>1</sup> and few warning signs. Metastatic lesions to the tongue are rare<sup>2</sup> and have been the presenting feature in only 5 cases.

We present a case of RCC diagnosed after initial presentation of a tongue lesion in a 72-year-old man. This case is the sixth case of RCC presenting as a tongue metastasis.

## Case Presentation

A 72-year-old asymptomatic, nonsmoking, Afro-Caribbean man presented with a firm, 3.5-cm, painless lesion on the right side of his tongue (Fig 1). It started as a small nodule 2 months earlier but was increasing in size. The overlying epithelium was stretched but not ulcerated. Biopsy suggested metastatic RCC (Fig 2). At that time, he



FIGURE 1. Tongue lesion.

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had no abdominal or urinary symptoms, but examination of his abdomen showed an enlarged, nontender right loin mass. Computed tomography scan confirmed that this arose from the superior pole of the right kidney (Figs 3, 4). It was difficult to determine renal vein and inferior vena caval involvement; however, no other organ involvement, enlarged lymph nodes, or free fluid was noted.

The patient underwent an uneventful radical right nephrectomy. Histopathology of the right kidney showed a moderately differentiated RCC of papillary type not invading the capsule (Fig 5). The ureter and renal vessels were not involved. Six weeks after nephrectomy, the patient presented to the emergency department with shortness of breath and lower limb swelling. The chest radiograph showed multiple secondary deposits (Fig 6) that were not evident on the preoperative chest radiograph. The patient subsequently died, about 12 weeks after the onset of the tongue lesion.

## Discussion

Review of the literature showed 29 reported cases of RCC tongue metastases since 1911.<sup>3,4</sup> However, in

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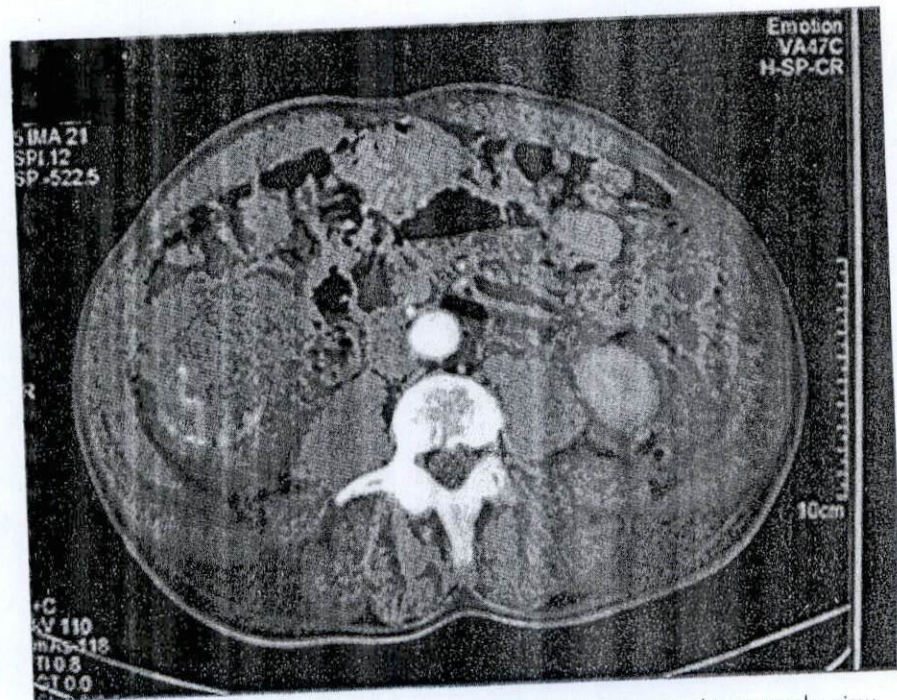
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**FIGURE 2.** Photomicrograph of tongue lesion (hematoxylin-eosin stain).

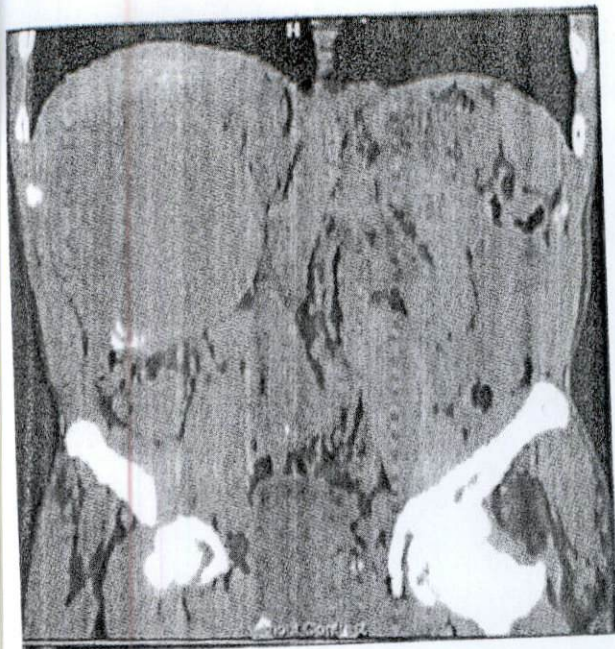
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**FIGURE 3.** Right renal mass with concentric ring on axial computed tomography view.

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**FIGURE 4.** Right renal mass on coronal computed tomography view.

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only 5 cases was the tongue metastasis the presenting feature.

The presence of tongue metastasis occurs with advanced RCC and is usually associated with a poor prognosis: the 5-year survival rate is less than 10%.<sup>3</sup>

Because of the lack of early warning signs from the primary tumor, RCC patients often present late; in fact, about 30% of patients with RCC present with metastatic disease.<sup>4</sup>

Primary malignancies found in the abdomen very uncommonly metastasize to the head and neck. RCC is the third most common malignancy to do so, after breast and lung.<sup>1</sup> Abdominal tumors metastasizing to the oral region are particularly uncommon and, in the case of the tongue, are often challenging to diagnose because primary and secondary lesions are similar both clinically and histologically.<sup>3</sup> Our patient presented with lung secondary tumors 6 weeks after nephrectomy, after an initial normal chest radiograph. Computed topography of the chest may have recognized these preoperatively.

Radical nephrectomy is the standard of care for RCC, and it confers a possible survival benefit even in the presence of metastases.<sup>3</sup> Secondary tumors of the tongue are managed with palliative intent (surgery, radiotherapy, and immunotherapy).

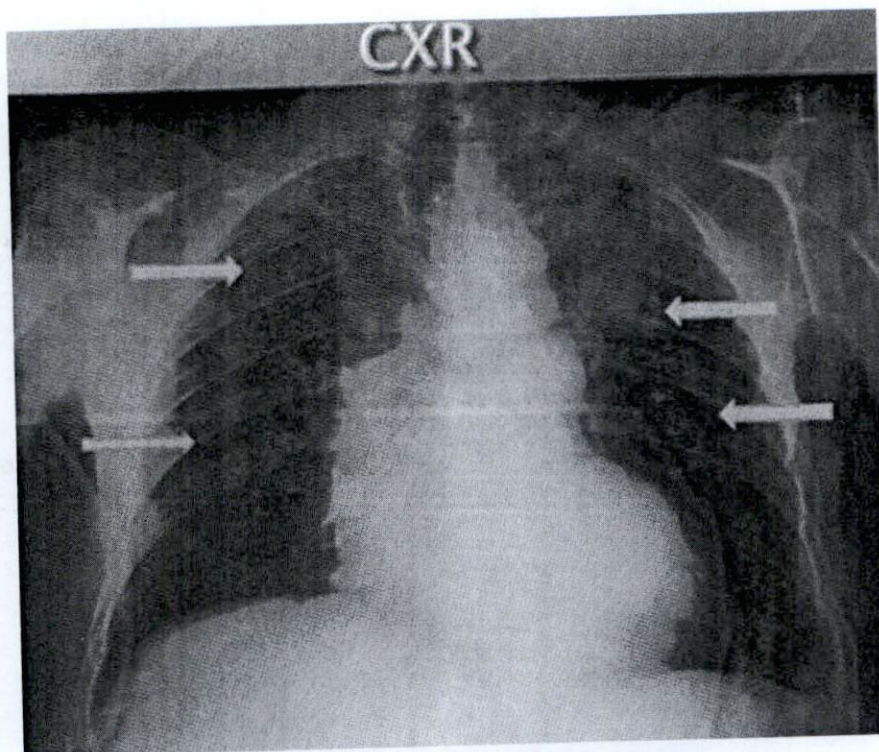
Although tongue metastases are rare, the discovery of a tongue mass requires an early and thorough evaluation to accurately define the lesion. We report a case of RCC diagnosed only after an assessment of a tongue lesion suggested the diagnosis in an asymptomatic Caribbean male of African origin. The finding of a right renal mass was confirmed by computed tomography, which also showed that the



**FIGURE 5.** Photomicrograph of right (Rt) renal mass (hematoxylin-eosin stain).

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**FIGURE 6.** Multiple pulmonary metastatic deposits.

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neoplasm appeared to be confined within the capsule with no evidence of locoregional spread.

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