

Images – A nose metastasis heralding renal cell carcinoma recurrence 25 years post-nephrectomy

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Introduction

Renal cell carcinoma (RCC) represents 2-3% of all cancers and 85% of primary renal tumours.¹ Approximately 20% of patients with RCC will have locally advanced disease, while 25% will have metastatic disease at diagnosis.¹ RCC will most commonly metastasize to the lungs, lymph nodes, bones, brain and liver with less common metastasis sites including the head and neck area.²⁻⁴ In one large study, investigating the patterns of metastasis in different malignancies, no cases of RCC metastasis to the skin were noted.⁵ It is thought that up to half of patients with RCC will have distant metastases at some point, and when RCC recurs, it is typically within the first 5 years, but there are reports of metastasis in unusual distant sites beyond 10 years.^{3, 6-8.}

In recently published Canadian guidelines for non-metastatic RCC follow up, it emphasizes the importance of surveillance, and the use of pathological stage for surveillance regimen.^{3,4} Risk stratification is primarily based on pathological stage but should take into account other risk factors such as histological subtype, Fuhrman nuclear grade, and clinical factors including blood neutrophil to lymphocyte counts.³ The role of elevated neutrophils in promoting metastasis, including tumor infiltrating neutrophils, in late stage patients could be due in part to neutrophils acting as chaperones for circulating tumor cells via homing receptors to various distant metastatic sites such as skin.⁹⁻¹⁰

Case report

An 88-year-old Caucasian male was seen for voiding symptoms, who had a previous open right radical nephrectomy for RCC 25 years prior. He was noted to have a fleshy lesion on the tip of his nose, which had been present for several weeks and associated with minor bleeding. The patient reported increasing fatigue over the past two months but did not report any other systemic symptoms. His neutrophil to lymphocyte was significantly elevated on CBC. The patient underwent excisional biopsy of his nose lesion, which demonstrated a clear cell carcinoma composed of alveolar nests of malignant clear cells surrounded by delicate capillary network with hemorrhage, located within the dermis (Fig. 2A). Immunohistochemical stains were positive for A/E1/3, CK8/18, and Pax-8, findings consistent with metastasis from patients known RCC (Figs 2C-D). Non-contrast CT scan of the head/neck/chest/abdomen/pelvis was performed, which demonstrated the secondary lesion of the nose, numerous pulmonary nodules, enlarged subcarinal lymph node, cerebellar lesions and several soft tissue deposits of the body wall, and within the abdomen and pelvis. The patient was assessed by medical oncology and was started on systemic therapy with pazopanib at 50% dose. He was also assessed by radiation oncology and received palliative external beam radiation to the lesions on the nose, as well as one on his back.

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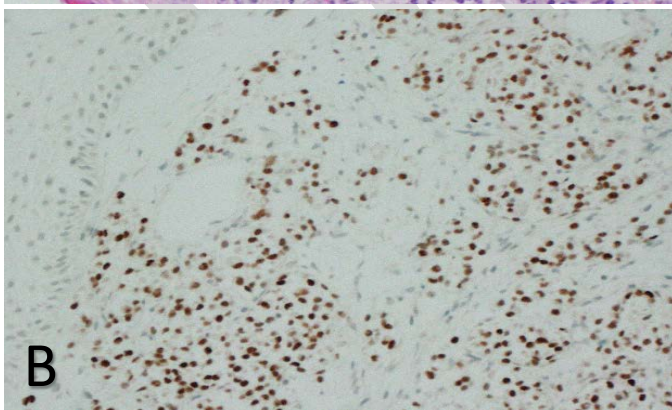
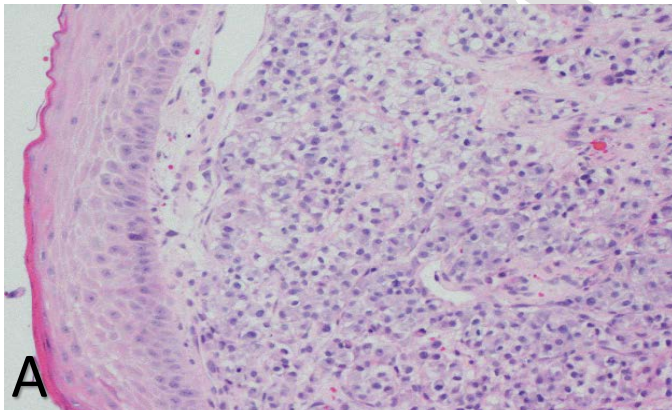
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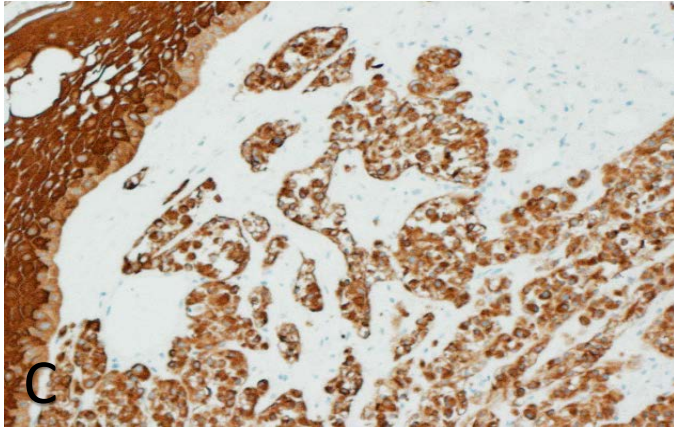
Figures and Tables

Fig. 1. Clear-cell renal carcinoma metastasis to the tip of the nose 25 year post-nephrectomy.



Fig. 2. Pathologic findings of case. (A) 10X HE stained slide of skin metastasis; (B) Pax-8 positive immunolabeling; (C) pancytokeratin (AE1/AE3) positive immunolabeling.





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