

Renal Cell Carcinoma with Unusual Visceral and Cutaneous Metastasis

Abstract

Renal cell carcinoma is a common urogenital malignancy. It often metastasizes to the lungs, liver, bone, adrenal glands, and brain in the advanced stage. However, the involvement of the skin and subcutaneous region of the head and neck is rare. We report a case of a middle-aged man presented with extensive metastases to post radical nephrectomy. The nose and lower lip metastasis with submental lymph nodal mass is not previously reported. He also had metachronous prostatic adenocarcinoma. The case highlights the excellent capability of molecular imaging using fluorodeoxyglucose-positron-emission tomography/computed tomography to pick up all metastatic lesions and find metachronous prostate malignancy.

Keywords: Cutaneous, fluorodeoxyglucose-positron emission tomography/computed tomography, metastasis, renal cell carcinoma

Introduction

Renal cell carcinoma (RCC) is a common urogenital malignancy. It commonly presents in the advanced stage and metastasizes to the lungs, liver, and bone. We report a case of a recurrent metastatic RCC patient with rare nose and lip metastasis. Fluorodeoxyglucose-positron-emission tomography/computed tomography (FDG PET/CT) has an ill-defined role in RCC management. It could pick up various metastatic lesions and other significant findings such as metachronous primary in patients.

Case Report

A 55-year-old man presented with painless hematuria without dysuria, flank pain, or fever. He was a smoker and tobacco chewer. Urine cytology was negative for malignant cells. Ultrasonography revealed a hypoechoic mass lesion in the left kidney. Contrast-enhanced computed tomography (CECT) of the abdomen showed a mass in the left kidney. He underwent a radical nephrectomy. HPE was clear-cell renal cell carcinoma (RCC) without lymph node involvement. The postoperative fluorodeoxyglucose-positron emission tomography/CT (FDG PET/CT) (not shown) revealed multiple FDG avid nodular lesions in the lung. Apart

from it, focal FDG avidity was noted in the prostate. Biopsy revealed prostatic adenocarcinoma (Gleason score 3 + 4 = 7) with raised S. PSA level (19.2 ng/ml). The patient was lost to follow-up for 1 year during the COVID-19 pandemic. He presented with back pain and face swelling. FDG PET/CT revealed metastatic deposit in the node and lower lip involvement with other lesions. Lip lesion biopsy is suggestive of metastatic RCC. The patient is started with Pazopanib Figure 1.

Discussion

The RCC is a common malignancy of the urogenital system and often presents systemic metastasis.^[1] Postnephrectomy, 20%–50% of patients develop distant metastases involving the lung, liver, bone, adrenal glands, and brain. The cutaneous spread is considered rare.^[2] The rich vascular supply of RCCs facilitates hematogenous extension to vena cava and lung metastases. Arteriovenous and systemic shunts could lead to the head and neck spread.^[3,4] It could present as nasal cavity, lip, hard palate, tongue, and maxillary sinus lesion.^[5] It could infrequently be presenting sign in RCC or usually occurs years after primary diagnosis.^[6] Differential diagnoses are primary squamous cell carcinoma and high-grade salivary neoplasm. Primary SSS

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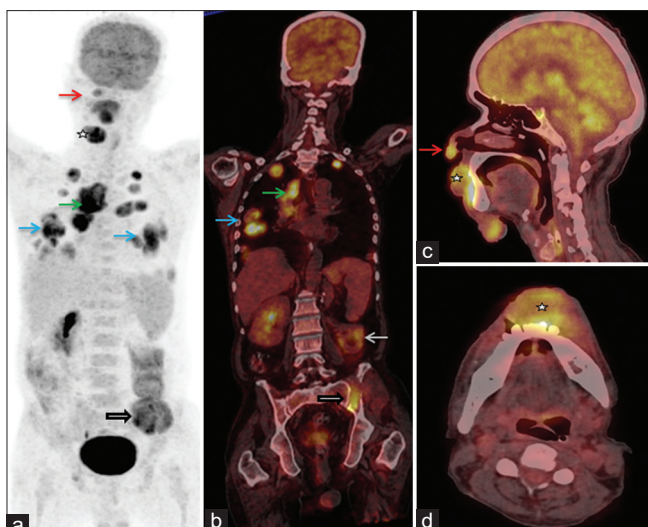


Figure 1: (a) Maximum intensity projection image of fluorodeoxyglucose-positron emission tomography/computed showing multiple tracer avid lesions in the head and neck (red arrow, star), thorax (blue and green arrows), and abdominal-pelvis region (black arrow). (b) Coronal curved image shows mediastinal lymph nodes (SUV max \times 10.8, green arrow), lung nodules (SUV max \times 10.4, blue arrow), colo-colic intussusceptions (white arrow), and left iliac bone lesion (SUV max \times 5.7, thick black arrow). (c and d) Sagittal and Axial images of the head and neck show cutaneous lesions in the nose tip, lower lip, and sub-mental lymph node

is common in the head and neck and should always be suspected in these lesions.^[5] RCC exhibits focal cytokeratin positivity, whereas it is diffuse in salivary gland carcinoma. One should also rule out clear-cell variants of odontogenic tumors, melanoma, and other metastatic clear-cell carcinomas.^[7] The use of 18-F FDG-PET/CT in RCC is not well defined.^[8] Its use in primary RCC is limited due to physiological urinary excretion. However, it could be used to determine metastatic burden, as demonstrated in this case.^[9] It may play a pivotal role in recurrent and metastatic RCC, especially monitoring tyrosine kinase inhibitors therapy.^[10] A meta-analysis of 14 studies has shown excellent sensitivity (91%) and specificity (88%) for the extra-renal lesion.^[11]

Conclusion

This case presents a rare case of metastatic RCC with nose and lip metastasis. 18-F FDG PET/CT could pick up the metastatic disease burden along with the metachronous primary.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient (s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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