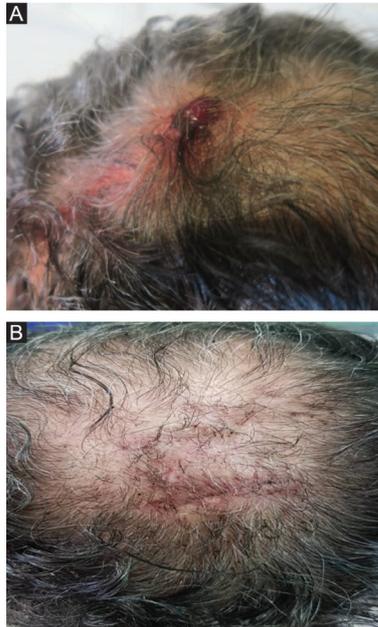
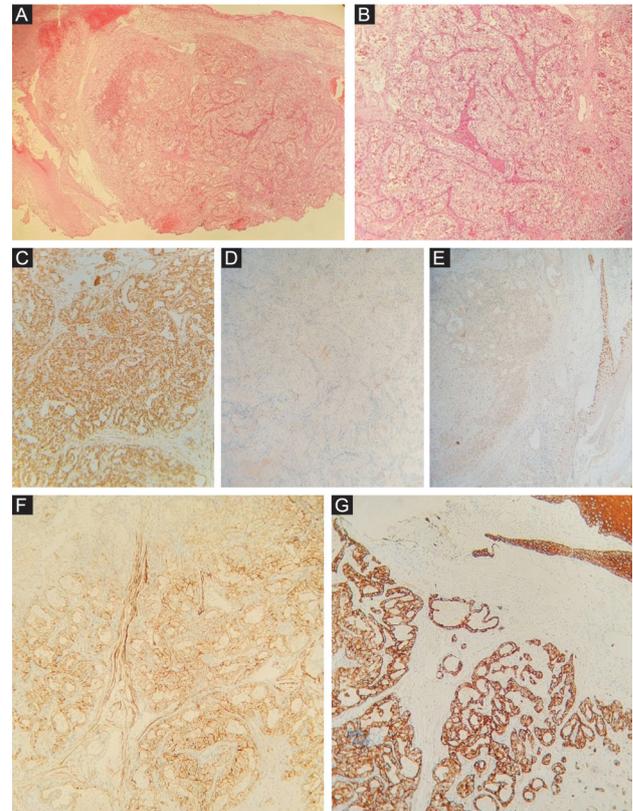


## Photoclinic



**Figure 1.** (A) Ulcerated Nodular Skin Lesion Before Surgical Removal. (B) The Skin Lesion after Surgical Removal.

The patient was a 60-year-old man who presented to our dermatology clinic with a skin lesion on the parietal scalp since 2 months ago which was increasing in size and bleeding intermittently but otherwise asymptomatic. The physical examination revealed a lesion of pulsatile nature with firm consistency and size of about 2×2 cm (Figure 1). There were no other abnormalities, including lymphadenopathy on examination. No other significant past medical history was given at this point. A skin biopsy was obtained with differential diagnoses of amelanotic melanoma, pyogenic granuloma, nodular basal cell carcinoma, adnexal tumors and Merkel cell carcinoma. Histopathological evaluation revealed tissue involvement



**Figure 2.** (A and B) Malignant dermal and subcutaneous neoplasm composed of atypical cells with clear cell cytoplasm, embedded in a highly vascularized stroma (A, H&E ×100; B, H&E × 200). Infiltrating neoplastic cells are positive for (C) Vimentin, (D) Ck7, (E) P63, (F) CD10, and (G) Pan-cytokeratin.

by a malignant dermal and subcutaneous neoplasm composed of atypical cells with clear cell cytoplasm and hyperchromatic nuclei, embedded in a highly vascularized stroma (Figures 2A, B). Immunohistochemistry showed the expression of pan-cytokeratin (Ck), vimentin, CD10, P63, and Ck7 by tumoral cells (Figures 2 C-G).

**What is your diagnosis?  
See the next page for your diagnosis.**

Received: July 31, 2020, Accepted: September 22, 2020, ePublished: December 1, 2020

**Fahimeh Abdollahimajd, MD<sup>1,2</sup>; Khatere Zahedi, MD<sup>1</sup>; Zahra Asadi Kani, MD<sup>1</sup>; Hamideh Moravvej, MD<sup>1\*</sup>**

<sup>1</sup>Skin Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

<sup>2</sup>Clinical Research Development Unit, Shohada-e Tajrish Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran

\*Corresponding Author: Hamideh Moravvej, MD; Skin Research Center, Shohada-e Tajrish Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran. Tel: +98-21-22741507-9; Fax: +98-21 22744392; Email: hamideh\_moravvej@yahoo.com & hamidehmoravej@sbmu.ac.ir

**Cite this article as:** Abdollahimajd F, Zahedi K, Asadi Kani Z, Moravvej H. Photoclinic. Arch Iran Med. 2020;23(12):880-882. doi: 10.34172/aim.2020.117.

## ■ Photoclinic Diagnosis

### Cutaneous Metastatic Renal Cell Carcinoma

Initially, the patient denied any significant past clinical history, but further questioning revealed left radical and right partial nephrectomy due to clear cell carcinoma (15 years ago) and papillary cell carcinoma (7 years ago), respectively. Therefore, the lesion was completely excised under local anesthesia in an outpatient setting and further investigations showed clear margins. Following consultation with an oncologist, the requested routine laboratory and imaging tests including erythrocyte sedimentation rate, complete blood cell count, chemistry panel, urinary analysis, chest and abdominopelvic computed tomography scan (with and without contrast) revealed no abnormalities. The patient was followed for 6 months without any signs of recurrence.

While skin metastases are seen in up to 10.4 % of oncology patients and account for 2% of all skin neoplasms, their incidence is increasing worldwide.<sup>1</sup> Physicians should be vigilant in early diagnosis of cutaneous metastasis based on a variety of factors including the patient's gender and the primary tumor, which are two essential factors.<sup>2</sup> Breast cancer in women and lung cancer in men are the most common neoplasms that tend to metastasize to the skin; however, some other tumors including kidney, ovary and gastrointestinal tract carcinomas are also prone to metastasize to the skin.<sup>1</sup> Although any area of the skin may be involved, the most common sites of cutaneous metastasis are the chest, abdomen-umbilicus and head and neck, while the buttocks, pelvis-perineum and limbs are less frequently involved.<sup>3</sup> Clinical manifestations range from a firm consistency, solitary skin-colored lesion to multiple pink, reddish-brown and occasionally ulcerated nodules, located in the dermis or subcutaneous tissue. The lesions are usually asymptomatic and rarely painful.<sup>1</sup> Furthermore, neuroblastoma, kidney and liver tumors may present as blue, blue-violet or blue-red nodules.<sup>3</sup>

Renal cell carcinoma (RCC) is the most common type of renal cell tumors. Distant metastases occur in about one-third of patients with RCC.<sup>4</sup> Although the lungs, liver, bones, adrenal glands, or contralateral kidneys are the most common sites for RCC metastases, distant metastases to the skin mainly on the head and face accounts for 3% to 6% of the metastatic RCCs, usually indicating a widespread disease.<sup>2,5</sup> Cutaneous metastatic lesions are commonly characterized by a large pulsatile single nodule frequently with a vascular nature and rapid development.<sup>4</sup> The lesions usually present 6 months to 5 years following the initial diagnosis of RCC.<sup>5</sup> Recurrences that occur 10 years or more after the initial nephrectomy are considered late ones. If late recurrences present with cutaneous

involvement, the prognosis will be poor.<sup>6</sup> Therefore, it is important to diagnose and manage cutaneous metastasis quickly, since it may be the first clinical sign of late recurrence.<sup>2</sup>

There are limited reports on latent cutaneous metastatic RCC.<sup>4-10</sup> We also present an unusual case of late recurrence of RCC 15 years after initial total nephrectomy presenting as cutaneous metastasis. Depending on the number and site of metastatic lesions, various treatment approaches including chemotherapy, radiotherapy or surgery can be selected. Complete surgical excision is recommended for solitary skin lesions as was performed for our patient.<sup>2,5</sup>

In summary, regarding the poor prognosis of skin metastases, although rare, clinicians should be aware of its possibility in patients with new skin lesions and a history of RCC.

#### Authors' Contribution

HM and FA cared for the patient and have been responsible for the clinical part of the manuscript. FA, ZAK and KZ drafted the initial manuscript. FA and HM were responsible for final editing of the manuscript, and coordinated the study. All authors participated in writing and revising the manuscript. All authors have read and approved the final manuscript.

#### Conflict of Interest Disclosures

Not declared.

#### Ethical Statement

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

#### References

1. Guanziroli E, Coggi A, Venegoni L, Fanoni D, Ercoli G, Boggio F, et al. Cutaneous metastases of internal malignancies: an experience from a single institution. *Eur J Dermatol*. 2017;27(6):609-14. doi: 10.1684/ejd.2017.3142.
2. Strickley JD, Jenson AB, Jung JY. Cutaneous metastasis. *Hematol Oncol Clin North Am*. 2019;33(1):173-97. doi: 10.1016/j.hoc.2018.08.008
3. Choate EA, Nobori A, Worswick S. Cutaneous Metastasis of Internal Tumors. *Dermatol Clin*. 2019;37(4):545-54. doi: 10.1016/j.det.2019.05.012.
4. Kassam K, Tiong E, Nigar E, Kumar M. Exophytic parietal skin metastases of renal cell carcinoma. *Case Rep Dermatol Med*. 2013;2013:196016. doi: 10.1155/2013/196016.
5. Singh P, Somani K. Latent distant metastasis of renal cell carcinoma to skin: A case report. *Clin Case Rep*. 2020;8(7):1138-41. doi: 10.1002/ccr3.2844.
6. Smyth LG, Casey RG, Quinlan DM. Renal cell carcinoma presenting as an ominous metachronous scalp metastasis. *Can Urol Assoc J*. 2010;4(3):E64-E66. doi: 10.5489/auaj.859.

7. Aridogan I, Satar N, Doran E, Tansug MZ. Scrotal skin metastases of renal cell carcinoma: a case report. *Acta Chir Belg.* 2004;104(5):599-600. doi:
8. Singh A, Mohan G, Chaturvedi S, Khan SA. Cytodiagnosis of a cutaneous clear cell malignancy: metastatic renal cell carcinoma on chin. *J Clin Diagn Res.* 2016;10(1):ED12-ED14. doi: 10.7860/JCDR/2016/15869.7100.
9. Benhayoune K, Fatemi HEI, Fassi HEI, Mellas S, Farih H, Chbani L, et al. Scrotal skin metastases of renal cell carcinoma: A case report. *Case Rep Clin Med.* 2015;4(3):93-6. doi: 10.4236/crcm.2015.43020.
10. Yang HJ, Kang SY. Cutaneous metastatic renal cell carcinoma to the scalp. *Arch Craniofac Surg.* 2019;20(6):392-6. doi: 10.7181/acfs.2019.00206.



© 2020 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.