

# Scrotal Skin Metastases of Renal Cell Carcinoma: A Case Report

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## Abstract

Cutaneous metastasis from renal cell carcinoma is believed to be rare. We present a 66-year-old man operated for kidney cancer 20 years ago and has consulted for a scrotal lesion that had started 20 days. The physical examination revealed an erythematous lesion. A biopsy of the scrotal skin was made. We found a scrotal metastasis of renal cell carcinoma.

## Keywords

Scrotal Skin, Renal Cell Carcinoma, Metastasis, 20 Years

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## 1. Introduction

Renal Cell Carcinoma (RCC) currently accounts for 90% of all renal tumors, and is the most lethal of urological tumors. Its frequency has increased by 2.5% per annum. RCC is known as a highly aggressive tumor which requires early diagnosis to optimize the chance of cure. Thanks to the increase in image diagnosis (ultrasound, CT scan, MRI) in recent years, these tumors are easier to diagnose at an early stage of the disease. However, one third of the patients with RCC exhibit metastatic disease at the time of diagnosis, and as many as 40% of the other two thirds eventually will develop distant metastasis [1], and these are more frequent in the following order: lungs, lymphatic ganglions, bone, liver, contralateral kidney, adrenal and ipsilateral glands, brain and other less frequent localizations, such as the skin, which is usually a sign of poor prognosis [1] [2].

To our knowledge, we report one case of scrotal skin metastasis of RCC 20 years after a nephrectomy for RCC.

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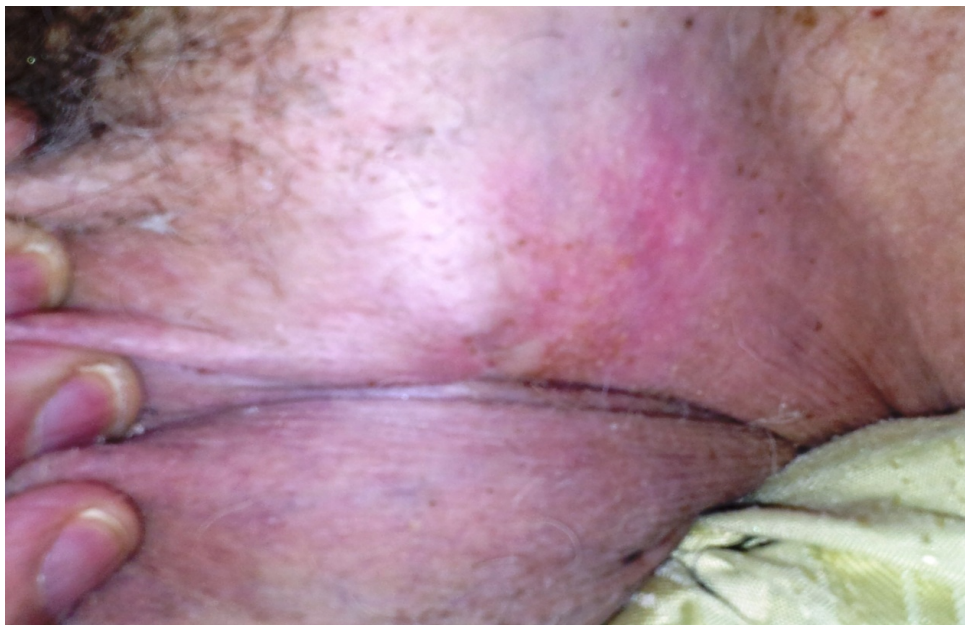
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## 2. Case Report

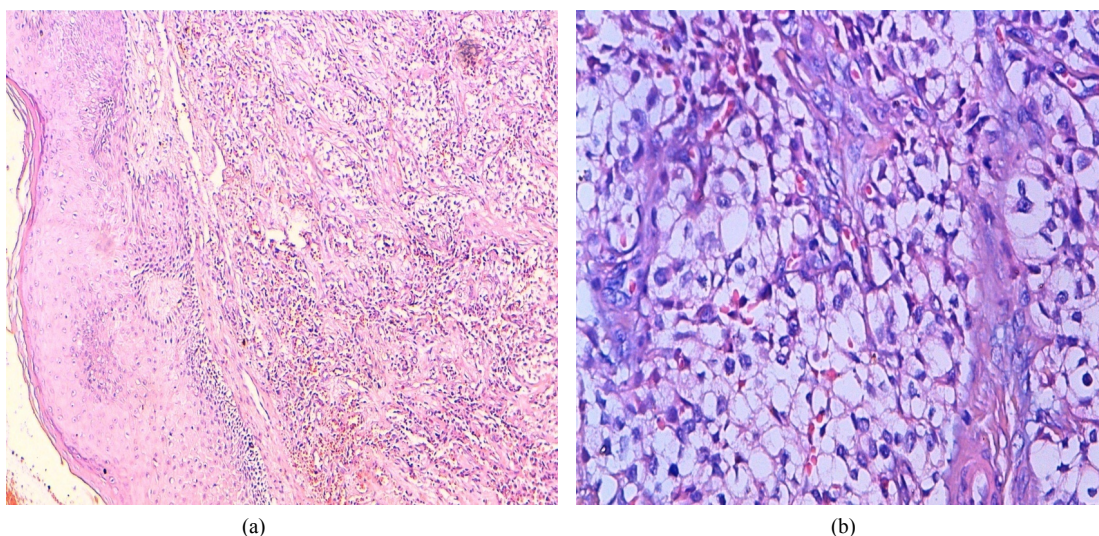
A 66-year-old man presented with a 20-day history of a lesion on scrotum skin. The patient is monitored for Renal Cell Carcinoma. The patient was under close follow-up for 10 years. All the examinations were normal. At the end of 10th year the patient had dropped out from follow-up by his own will. The physical examination revealed an erythematous lesion (**Figure 1**).

A biopsy of the scrotal skin was made. The sections of the resected tissue were stained slices showed a tumor infiltrated deeply into the dermis. The tumour cells had translucent cytoplasm, prominent cytoplasmic membranes, and round to ovoid nuclei. Pleomorphism in the tumor cell nuclei and eosinophilic were apparent (**Figure 2**).

The immunohistochemistry test showed positive for CD10, EMA and cytokeratin (**Figure 3**) and it was probably of renal origin taking into account the patient's history.

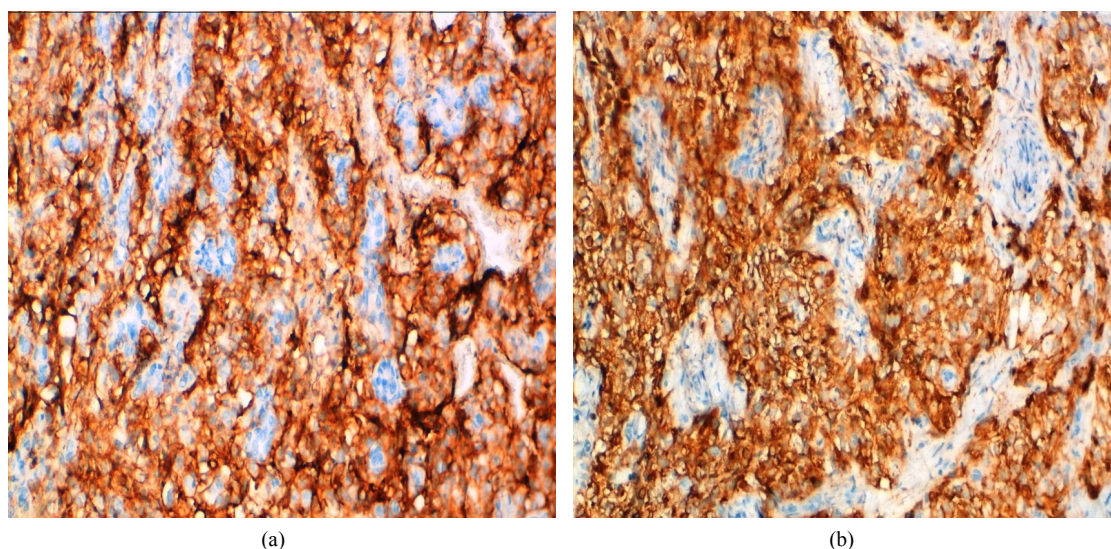


**Figure 1.** An erythematous lesion on the left side of scrotal raphe.



**Figure 2.** Histological micrograph showing neoplastic cells with prominent nucleoli and moderate pleomorphism beneath the squamous epithelium (HES: (a)  $\times 10$ ; (b)  $\times 40$ ).





**Figure 3.** Diffuse positive membranous immunoreactions with antibodies against CD10 (a), and EMA (b).

### 3. Discussion

RCC is the most lethal of the urological cancers and accounts for 3% of all adult malignancies.

In most of the cases published regarding patients with RCC, the development of skin metastases takes place within six months to five years of the initial diagnosis and after performing the nephrectomy [1]-[3], except in some cases in which RCC has been diagnosed after removing the skin lesion [4] [5]. In our case, the development of skin metastases occurred twenty years after the nephrectomy, which is not common during the natural course of the disease. We should highlight the importance of a precise histological diagnosis to permit the correct identification of the skin lesion in order to complete an extension study, since in up to 75% of cases, concomitant organic metastases develop. In this way, it was possible to diagnose other metastatic lesions in the lung and contralateral kidney that had not been detected during routine patient monitoring [3] [6].

The development of cutaneous metastases in RCC is associated with a poor prognosis [7]. Most patients die within 6 months of cutaneous metastasis detection.

Treatment of metastatic renal adenocarcinoma consists of a combination of surgical treatment (radical nephrectomy) and angiogenesis/multikinase inhibitors (sunitinib or sorafenib). However, treatment of single skin lesions is usually surgical [4], except in certain cases in which radiotherapy is an option [8] [9]. In this case, due to the late development of multiple metastases following the nephrectomy, it was decided to operate on the patient and remove the skin lesions followed by treatment with multikinase inhibitors that shown a significant increase in the possibilities of survival compared to other medical therapies (interferon or interleukins) in treating renal cell carcinoma [5].

### 4. Conclusion

In conclusion, in the long run, there is always a small, but continuous risk of recurrence of RCC. The skin should be examined during an annual follow-up examination. If a skin lesion is found in patients with RCC, it must be evaluated thoroughly to rule out cutaneous metastasis.

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