

A solitary skin metastasis in renal cell carcinoma

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A 66-year-old male patient, a heavy smoker with an upper lip tumor, was admitted to an outpatient surgical clinic of dermatology. Apart from the upper lip tumor and a weight loss of 5 kg over the past year (8% of the total body mass), the patient was asymptomatic. As he did not report any additional alarming symptoms and had no previous history of cancer, the typical tumor morphology was described as keratoacanthoma (FIGURE 1A), based on its rapid growth (over a few months). The patient was referred for a surgical tumor excision. However, an additional chest X-ray and computed tomography (CT) scan revealed numerous lung metastases (FIGURE 1B). A core needle transthoracic biopsy and lip tumor biopsy were performed.

Laboratory results revealed anemia with a stable hemoglobin level of 8.8 g/dl and elevated C-reactive protein level of 154 mg/l. Spirometry showed bronchial obturation with a forced expiratory volume in 1 second (FEV₁) of 87% and vital capacity (VC) of 107% of the predicted value. The Tiffeneau index (FEV₁/VC) was 0.6. The reversibility test provided negative results.

In both specimens, adenocarcinoma clarcellulare was observed with positive vimentin, AE1/AE3, and CD10 staining (FIGURE 1C and 1D). Renal cancer carcinoma was diagnosed at stage cT3b cN1 pM1 and clinical stage IV.¹ In addition, we diagnosed chronic obstructive pulmonary disease (group A according to the Global Initiative for Chronic Obstructive Lung Disease classification). An abdominal ultrasound and contrast-enhanced CT revealed a left renal tumor (9 × 7 × 7 cm in size) infiltrating the renal vein, as well as multiple enlarged retroperitoneal metastatic lymph nodes (FIGURE 1E). The patient was scheduled for systemic therapy and palliative lip tumor resection. However, despite surgery, the patient died 4 months after receiving the first cycle of interferon treatment.

Renal cell carcinoma (RCC) is the most common malignant genitourinary tumor. As described above, the symptoms are usually mild or absent. This tumor is frequently diagnosed with noninvasive incidental imaging, especially an ultrasound or CT.² There have been relatively few cases of skin metastases described in the literature (reported incidence of 1%–3% of cases). Metastases usually form multiple lesions although cases of solitary tumors causing diagnostic difficulties have been also described.²

Skin metastases represent about 2% of all skin tumors. The morphology of cutaneous metastases can be classified into 3 groups: nodular, inflammatory, and fibrotic.^{3,4} Nodular metastases are the most typical manifestation, and with an inflammatory component, they are suspected to be malignant. However, if the fibrotic component is present, the metastases may mimic benign skin lesions such as keratoacanthoma.⁴

Keratoacanthomas are usually described as well-differentiated squamous cell carcinomas because these lesions present no substantial molecular differences. A deep biopsy is recommended for differentiating benign lesions from invasive skin cancer and, more importantly, from metastases.⁵ Those benign tumors usually occur in patients aged between 50 and 69 years old. Their incidence was estimated in only 1 study.⁶ Their rapid onset and spontaneous regression within months may require a different clinical approach.⁵ Thus, relying solely on the tumor's clinical manifestation may lead to misdiagnosis and incorrect treatment.

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Received: November 23, 2015.

Revision accepted:

December 21, 2015.

Conflict of interests: none declared.

Pol Arch Med Wewn. 2016;

126 (1-2): 100-101

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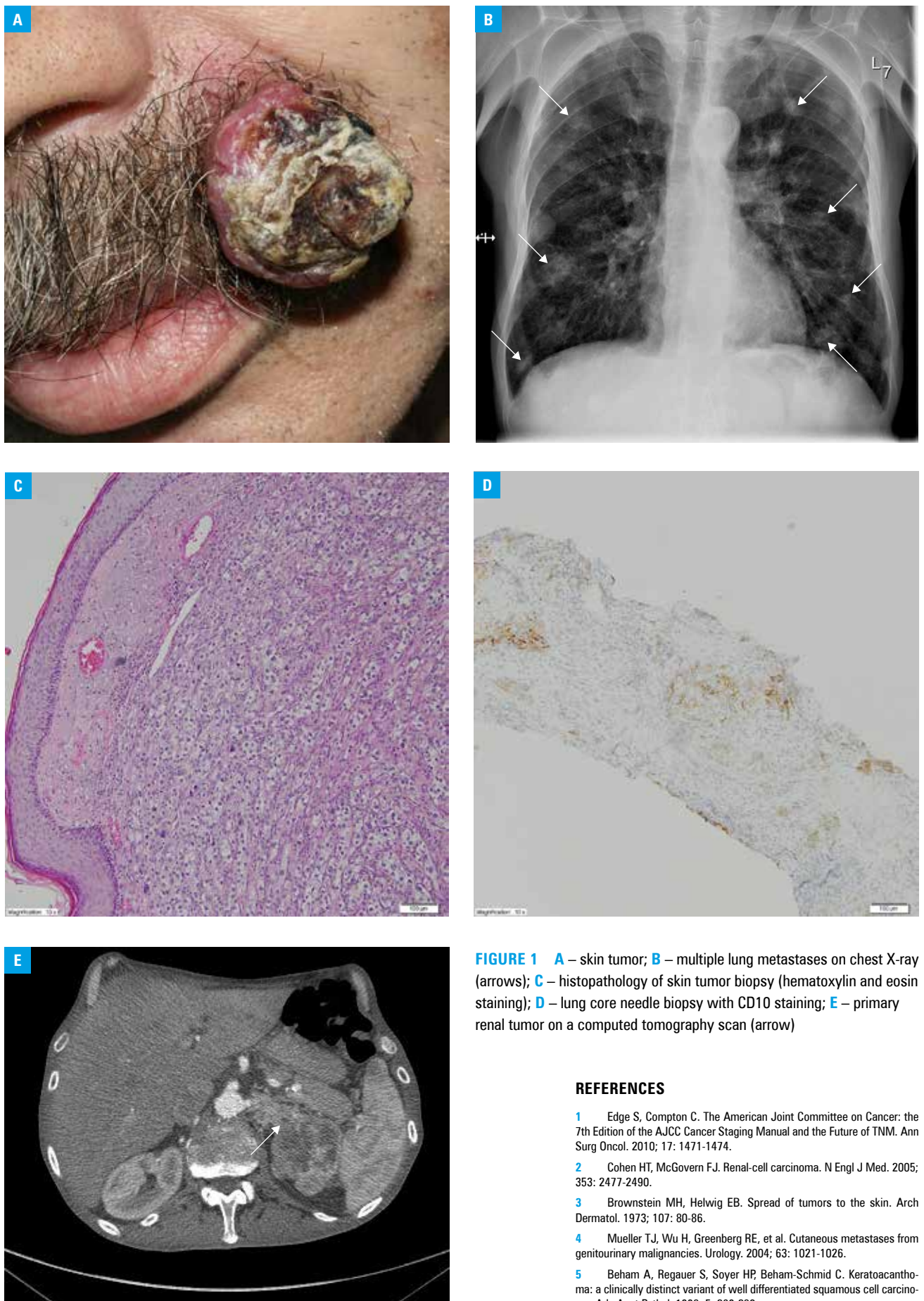


FIGURE 1 **A** – skin tumor; **B** – multiple lung metastases on chest X-ray (arrows); **C** – histopathology of skin tumor biopsy (hematoxylin and eosin staining); **D** – lung core needle biopsy with CD10 staining; **E** – primary renal tumor on a computed tomography scan (arrow)

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