

Keratoacanthoma-like cutaneous metastases as the first presentation of lung cancer

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FIGURE 1 A, B, C – clinical presentation: multiple cutaneous metastases from lung adenocarcinoma

A 76-year-old man with accompanying chronic obstructive pulmonary disease, type 2 diabetes mellitus, hypertension, atrial flutter, gout, benign prostatic hyperplasia, and obesity presented with multiple eruptive skin tumors of the scalp, clinically resembling keratoacanthoma. The first lesion had occurred in the parietal region 7 months before the first visit to an outpatient clinic and had been slowly growing. At the same time, the patient observed similar multiple bilateral lesions in the parietal, frontal, and temporal regions (**FIGURE 1A**). The tumors were associated with a periodic nocturnal stabbing pain. Regardless of these lesions, a chest radiography performed 3 months earlier as a routine screening test revealed a solitary pulmonary nodule within the upper lobe of the left lung (**FIGURE 1B**). Based on a transthoracic needle lung biopsy and positron emission tomography–computed tomography, the patient was diagnosed with lung adenocarcinoma with the presence of satellite metastatic

nodules in the upper lobe of the left lung, both lobes of the right lung, and the left adrenal gland. A histopathological examination of the scalp tumor confirmed the presence of clinically suspected cutaneous metastases (**FIGURE 1C**).

Cutaneous metastases occur in 0.6% to 10.4% of patients with cancer.¹ Previous studies indicated lung cancer in men and breast cancer in women as the most common primary tumors.^{1,2} The diagnosis is made more often in patients with previously diagnosed cancer, and in less than one-third of patients it precedes or is made simultaneously with the final diagnosis, as in the presented case. The cutaneous metastases may present clinically as single or multiple nodules, papules, plaques, tumors, and ulcers, and may mimic primary skin tumors as well as numerous benign dermatoses.¹⁻³ Keratoacanthoma-like skin metastases have been reported occasionally, while only 3 of 13 cases described so far concerned multiple lesions. Primary tumors included lung cancer, breast cancer,

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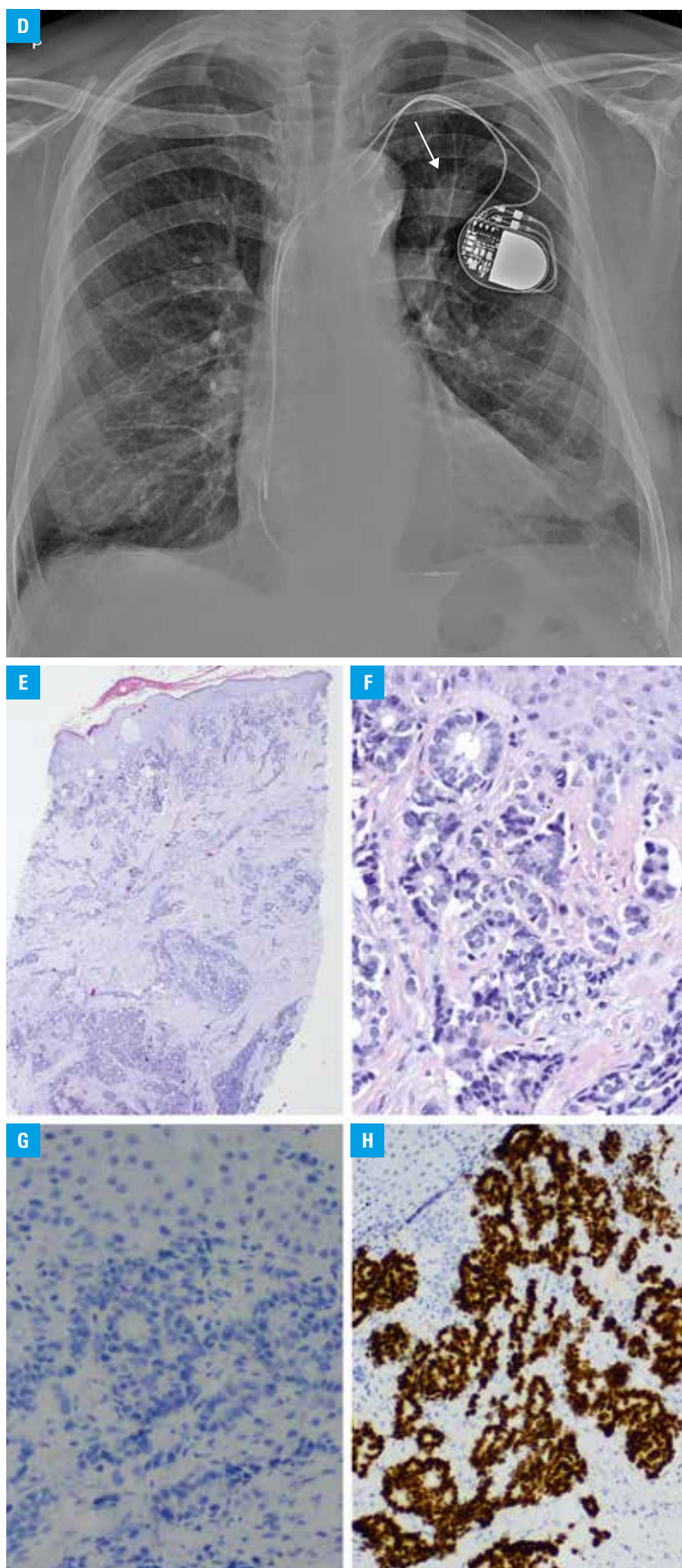


FIGURE 1 **D** – a solitary pulmonary nodule within the upper lobe of the left lung (adenocarcinoma [arrow]); **E, F, G, H** – histopathological presentation: the adenocarcinoma infiltrates the skin undermining the epidermis (**E**). The larger magnification shows focal tubule formation (**F**). Immunophenotyping showed the expression of prostate-specific antigen (**G**) and the presence of thyroid transcription factor 1 (**H**).

esophageal cancer, bronchial cancer, mesothelioma, chondrosarcoma, melanoma, and kidney cancer.⁴ In the spectrum of differential diagnoses, other causes of multiple keratoacanthoma should be considered, such as impaired cell immunity, viral infection, radiation therapy, trauma, drugs (sorafenib, vemurafenib, leflunomide, imiquimod), as well as some rare syndromes including Muir–Torre, Grzybowski, Ferguson–Smith, and Witten–Zak syndromes.⁵

Due to the variety of clinical presentations, establishing the diagnosis of skin metastases may be difficult. Nevertheless, the simultaneous occurrence of multiple tumors in the same anatomical region should raise a suspicion of this entity. Unfortunately, the presence of skin metastases indicates a poor prognosis with an average survival of a few months.^{1–4}

REFERENCES

- 1 Alcaraz I, Cerroni L, Rütten A, et al. Cutaneous metastases from internal malignancies: a clinicopathologic and immunohistochemical review. *Am J Dermatopathol*. 2012; 34: 347-393.
- 2 Romantowski J, Kuziński K, Janowicz A, et al. A solitary skin metastasis in renal cell carcinoma. *Pol Arch Med Wewn*. 2016; 126: 100-101.
- 3 Sobjanek M, Jakubczak-Gawlik T, Włodarkiewicz A, et al. [Renal cell carcinoma metastatic to the skin: case report and review of the literature]. *Dermatology Review*. 2007; 94: 507-510. Polish.
- 4 Saeed S, Keehn CA, Morgan MB. Cutaneous metastasis: a clinical, pathological, and immunohistochemical appraisal. *J Cutan Pathol*. 2004; 31: 419-430.
- 5 Nofal A, Assaf M, Nofal E, et al. Generalized eruptive keratoacanthoma: proposed diagnostic criteria and therapeutic evaluation. *J Eur Acad Dermatol Venereol*. 2014; 28: 397-404.