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## Case Report

# Cutaneous metastasis of lung cancer: Case report <sup>☆</sup>

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### ABSTRACT

Lung cancer is one of the most common cancers in men, and is often diagnosed at the metastatic stage. It often leads to lung, bone, brain, liver, and adrenal metastases. However, unusual secondary locations are possible, such as skin metastases, which are often associated with a poor prognosis. We report a case of lung cancer revealed by a subcutaneous mass on the forehead.

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## Introduction

Visceral cancers, notably lung cancer, colon cancer, and head and neck cancer, rarely lead to cutaneous metastases, with an estimated prevalence of 2%–9% [1]. These metastases are often identified after the diagnosis of the primary cancer. However, they can be an inaugural sign of cancer, indicating an advanced disease. We report a case of squamous cell bronchial carcinoma revealed by a cutaneous metastasis on the forehead.

## Case report

A 71-year-old patient, a chronic smoker at a rate of 25 packs per year, quit smoking 20 years ago, was admitted to the Re-

gional Oncology Center in Oujda for the management of a cutaneous mass on his forehead. The symptoms had been evolving for 5 months in the form of a small left frontal skin lump, which had gradually increased in size without other notable signs, especially respiratory symptoms. Clinical examination revealed a patient in fairly good general condition with a solid, fixed and polylobed left frontal skin mass measuring 80\*55mm (Fig. 1). The rest of the clinical examination was unremarkable. Biopsy of the mass, along with histopathological and immunohistochemical studies, confirmed the diagnosis of a secondary localization of a squamous cell carcinoma of pulmonary origin. Brain CT scan confirmed that it was a tissue lesion of the frontal cutaneous and subcutaneous soft tissues, more lateralized on the left, poorly circumscribed, enhancing heterogeneously, measuring 67\*37 mm (Fig. 2). The remainder of the extension work-up showed the presence of a locally

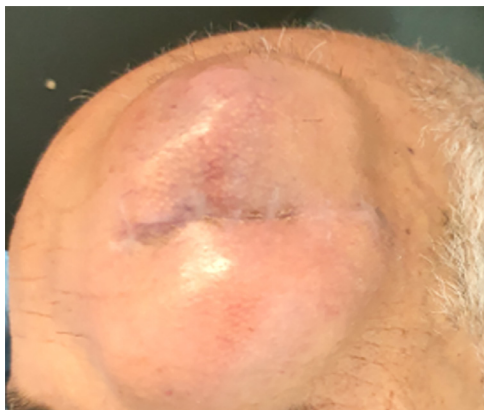
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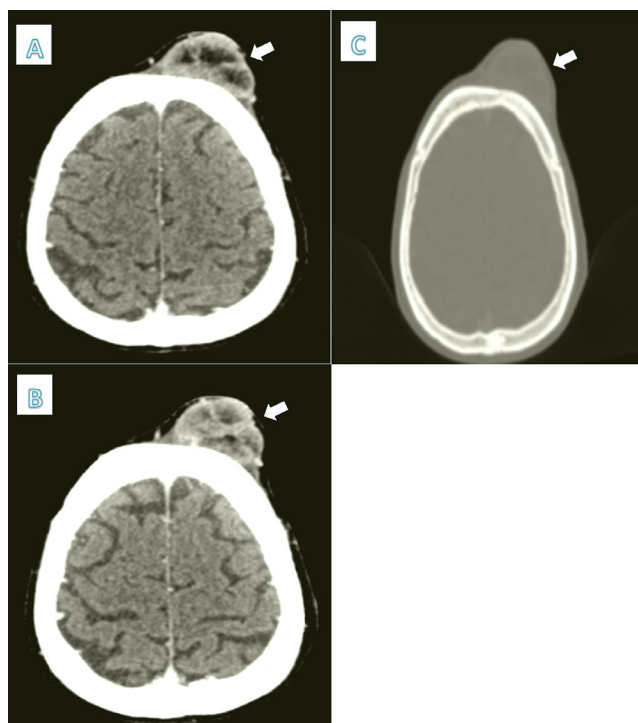
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**Fig. 1 – Clinical appearance of the frontal skin mass revealing lung cancer.**

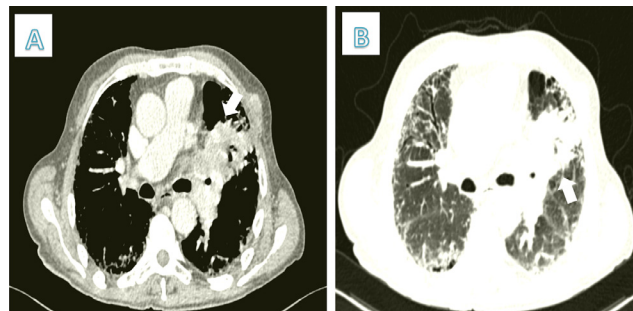


**Fig. 2 – injected axial sections of a brain scan with parenchymal (A) (B) and bone (C) window showing a left frontal subcutaneous tissue mass (white arrow).**

advanced hilo-pulmonary tumor in the left upper lobe that had metastasized to the contralateral lung, bone, and adrenals (Fig. 3). The patient receives palliative chemotherapy.

## Discussion

Lung cancer is the most common cancer in men in terms of incidence and represents the leading cause of cancer-related mortality worldwide [2]. The non-specific symptoms of lung



**Fig. 3 – injected axial sections of a chest scan with mediastinal (A) and pulmonary (B) window showing a left upper lobe hilo-pulmonary tissue process (white arrow).**

cancer often leads to a late diagnosis at the metastatic stage [3]. The metastatic spread of lung cancer is responsible for most deaths and determines the grim prognosis of the disease [4]. Indeed, bronchial cancer has a notable tendency to spread to other organs such as the adrenal glands, bones, brain, lungs, and liver [5]. Other rarer metastatic sites are possible, and they can sometimes be the revealing sign of the cancerous disease, such as cutaneous metastases [6]. The incidence of cutaneous metastases from bronchial cancers varies from 1% to 12% [7]. These metastatic nodules most often appear on the chest, abdomen, neck, and scalp. According to the literature, certain clinico-histological factors favor the development of cutaneous metastases, such as the histological type adenocarcinoma and the low degree of tumor differentiation, which are associated with a higher risk of cutaneous metastases compared to the squamous cell histological type [8]. Clinically, cutaneous metastases from lung cancer often manifest as one or more painless dermal and/or subdermal nodules of variable size that rapidly increase in volume, sometimes reaching several centimeters, with no tendency to spontaneously regress, and may exhibit signs of inflammation or ulcerations [9]. Diagnostic accuracy is achieved through histopathological and immunohistochemical analysis of a biopsy of the mass or the entire mass after excision surgery [10].

The treatment of cutaneous metastases from lung cancer is part of the comprehensive management of the pulmonary cancer disease, depending on the stage of the disease, histopathological factors, and the patient's overall condition, unless there are painful masses compressing vascular and nerve structures, in which case palliative comfort treatment is necessary [11].

## Conclusion

Cutaneous metastases from lung cancer are a rare clinical situation, often indicative of advanced disease and a poor prognosis. Practitioners should be aware of the possibility of cutaneous metastases from lung cancer when encountering a cutaneous mass of cancerous origin.

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## Patient consent

The consentment from the patient was obtained.

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