



# Cutaneous Involvement of Lung Adenocarcinoma

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## Dear Editor,

A 51-year-old male patient was admitted to our outpatient clinic with the complaint of swelling in his ear. The patient's anamnesis revealed a history of lung adenocarcinoma diagnosed one year ago and he was receiving chemotherapy and radiotherapy. His dermatological examination revealed 2 erythematous and crusted nodules on the ear. The patient stated that these complaints had begun a month ago and that they were getting larger and intermittently bleeding. Skin biopsy was taken and pathological examination was performed. Thyroid Transcription Factor (TTF) was positive in the histopathological examination (Figure 1). The patient was diagnosed with skin metastasis of lung adenocarcinoma. In the literature, there are very few case reports on skin metastasis of lung cancer, and cutaneous metastasis has been associated with poor prognosis. In our patient, the patient died one month after the diagnosis of skin metastasis.

Lung cancer is one of the most common causes of death due to malignancy. The most common distant metastasis develops in lung cancer is adrenal, liver, brain, contralateral lung and bones (1). Skin metastasis is very rare. It has been reported in the literature that all subtypes of lung cancer may cause metastasis to the skin and that skin lesions may have different forms (2). Cutaneous metastasis may occur in approximately 0.2-3.1% of lung cancer cases (2, 3). There are contradictions in histological types of cutaneous metastasis in the literature. While the most common histological subtype that cause skin metastasis more frequently was stated to be adenocarcinoma in some publications, it was reported

to be squamous cell carcinoma in some other publications (3). The most common sites that cutaneous metastasis occurs are scalp, head, neck, chest region, and also abdominal wall, back and extremities. Cutaneous metastasis usually occurs after the patient is diagnosed with lung cancer. The mean time for the development of cutaneous metastasis after the diagnosis of lung cancer is 5.75 months. In our patient, cutaneous metastasis developed one year after the initial diagnosis. Cutaneous metastases may have different clinical manifestations; skin lesions may be nodular, mobile, fixed, endured, painless, rarely zosteriform, bullous, papulosquamous, plaque-like, ulcerated, and erysipelas-like (4). Their size may be different. In our patient, locally crusted multiple nodules with varying sizes on erythematous ground were localized on the patient's ears. The patient had no pain.

Generally, cutaneous metastasis is associated with the progression of malignancy and poor prognosis (5). In patients with cutaneous metastasis noticed before the diagnosis of lung cancer, life expectancy is lower compared to those that occur later (2). For treatment, surgical excision is considered for only one lesion, but it is ineffective in multiple lesions. Other poor prognostic factors related to cutaneous metastasis are the occurrence of primary small cell lung cancer, multiple metastatic cutaneous lesions, or other distant metastases. Our patient died one month after the diagnosis of cutaneous metastasis. Although it is rare, newly developed skin lesions should be taken into consideration in terms of cutaneous metastasis in patients with lung cancer and skin biopsy should be taken from the lesions because their clinical appearance differ.

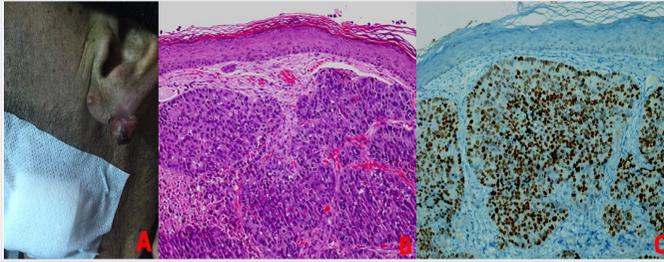
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**Figure 1.** a, b, c. Red nodules in the ear (a). x100 magnification: large epithelioid cells with prominent nucleoles and nuclear polymorphism (b) Diffuse nuclear thyroid transcription factor positivity in neoplastic cells (c)

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