

Sir,

Cutaneous metastases of the different visceral malignancies (0.7-9%)^[1,2] and also skin metastases of the lung cancer are rare, but worsen the prognosis (1-12%).^[3-5]

While skin metastasis rate of large cell lung carcinomas is high, it is low for the squamous and small cell lung carcinomas. In this letter, we present a case of small cell lung carcinoma presenting with a cutaneous metastasis.

A 59-year-old male patient with the diagnosis of small cell lung carcinoma was referred to our clinic with the complaint of a painless, hard, and lumpy nodule on his left shoulder. He had history of chronic obstructive pulmonary disease. A submucosal lesion was observed during the bronchoscopy of the left lower lung lobe 9 months ago. Microscopic examination of the bronchoscopic biopsy revealed the diagnosis of small cell lung carcinoma and he was given four sessions of chemotherapy (Etapocid and Cisplatin). Post-therapeutic abdominal ultrasonography showed no metastasis. Three months after the cancer diagnosis, a lump formed on his left shoulder and progressed slowly.

On dermatological examination, an indurated, erythematous, and hard nodular lesion was detected on his left shoulder. Its largest diameter was 3 cm [Figure 1]. An excisional biopsy revealed that the tumor was filling all the dermis in a diffuse pattern. There was no relation or invasion to the epidermis above. Tumor cells had hyperchromatic nuclei and high nucleocytoplasmic ratio [Figure 2]. The mitotic index was high. Immunohistochemically tumor cells expressed cytokeratin7 [Figure 3], chromogranin, and synaptophysin [Figure 4]. The cells were negative for cytokeratin 20 and melan-A. Histopathological diagnosis was metastatic small cell lung carcinoma. The patient refused chemotherapy and he died 6 months after the diagnosis of skin metastasis.



Figure 1: Indurated, erythematous, and hard nodular lesion on left shoulder

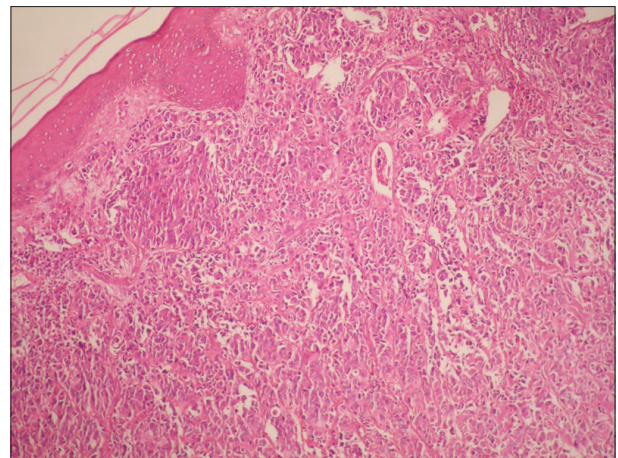


Figure 2: Light microscopic image, diffusely distributed tumor in all of the dermis (H and E, x100)

Skin manifestations of the patients with lung cancer were stated mostly as clubbing, cyanosis of lips, and telangiectasia.^[3] Other symptoms of lung cancers include hypertrophic osteoarthropathy, acanthosis nigricans, edema, dermatomyositis, scleroderma, pachydermoperiostitis, and cervical lymphadenitis.^[3] Patients diagnosed with lung carcinoma are at a substantial risk of metastasis. Even when the disease is detected at an early stage and removed by surgery, relapse with widespread

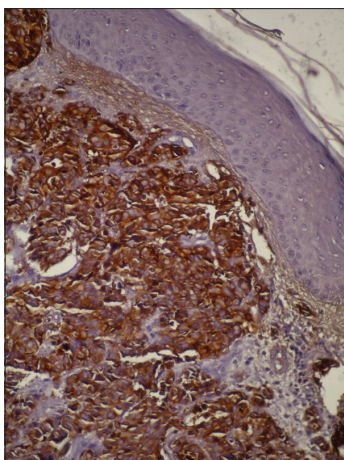


Figure 3: Immunohistochemically tumor cells showing strong positivity with cytokeratin 7 (CK7, x200)

metastases can be rapid. The most likely metastatic route is the hematogenous spread. The basic metastatic course can occur in the following steps: detachment from the primary tumor followed by invasion, intravasation into a vessel, circulation, stasis within a vessel, extravasation, invasion into recipient tissue bed, and proliferation.^[2]

Skin metastases of the lung cancer are rare and worsen the prognosis. The rate of the cutaneous metastases changes according to the types. It was found as 0.81% for small cell lung carcinomas. It is much lower compared to adenocarcinomas (2.95%) and squamous cell carcinomas (1.16%) of the lung. Clinical findings include a red-pink, ulcerated nodule and skin metastasis may be the first sign of the tumor.^[3,5] Therefore, it is important for both dermatologists and pathologists to be able recognize and diagnose these metastases.

Although they can occur in any part of the skin, most common sites for cutaneous metastases are chest, back, abdomen, and scalp.^[5] Our patient's cancer was located on left lower pole of the lung, and skin metastasis developed on his left shoulder. Skin metastasis worsens the prognosis of the patients. By the time skin metastasis appear, the neoplasm has usually advanced far. Median survival time after the diagnosis of a cutaneous metastasis is between 2.9 and 4.9 months.^[5] Treatment modalities cannot usually change this progress. Our patient died 6 months after the diagnosis of the cutaneous metastasis.

As seen in this case of rare unexpected skin metastasis of small cell lung carcinoma, the skin metastases lack

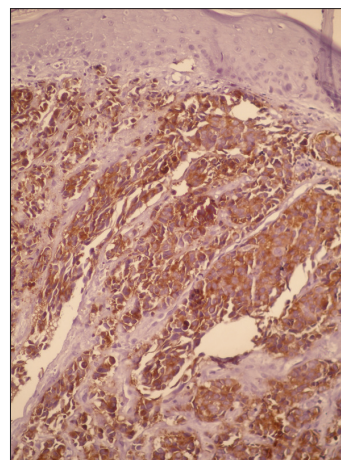


Figure 4: Tumor cells expressing synaptophysin antigen (Synaptophysin, x200)

a pathognomonic physical appearance. Therefore, physicians should be vigilant about this entity. Atypical skin lesions of the cancer patients, even they are not on common sites, should be evaluated and biopsies should be done to diagnose metastases and consider further adjuvant and supportive treatments.

**Gulcin Guler Simsek, Ayse Serap Karadag¹,
Zeynep Turksen²**

Departments of Pathology, and ²Plastic and Reconstructive Surgery, Kecioren Research and Training Hospital, Ankara, ³Department of Dermatology, Yuzuncuyl University Hospital, Van, Turkey

Address for correspondence: Dr. Gulcin Guler Simsek, Department of Pathology, Ankara Kecioren Research and Training Hospital, Ankara, Turkey. E-mail: gulguler1975@yahoo.com

Access this article online	
Quick Response Code:	Website: www.ijdvl.com
	DOI: 10.4103/0378-6323.82430

REFERENCES

- Hu SC, Chen GS, Lu YW, Wu CS, Lan CC. Cutaneous metastases from different internal malignancies: A clinical and prognostic appraisal. *J Eur Acad Dermatol Venereol* 2008;22:735-40.
- Rosen T. Cutaneous metastases. *Med Clin North Am* 1980;64:885-900.
- Kökçam İ, Yavrucuoğlu E, Saral Y, Muz H, Çelik P. Skin manifestations of the patients with lung cancer. *Türk J Dermatol* 1994;3:156-9.
- Barbetakis N, Samanidis G, Paliouras D, Samanidou E, Tzimirota Z, Asteriou C, *et al.* Facial skin metastasis due to small-cell lung cancer: A case report. *J Med Case Reports* 2009;3:32.
- Hürmüz P, Selek U, Zorlu F, Tekuzman G. Lung adenocarcinoma with skin metastasis. *Int J Hematol Oncol* 2008;18:39-41.