Cutaneous Metastasis in Squamous Cell Carcinoma of the Larynx: Case Report

Skuamöz Hücreli Larinks Kanserinin Kutanöz Metastazı

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Geliş Tarihi/*Received:* 15.06.2009
Kabul Tarihi/*Accepted:* 03.11.2009

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ABSTRACT Cutaneous metastases from carcinoma of the larynx are exceedingly rare and indicates poor prognosis. There are only a few articles reporting cutaneous metastases from carcinoma of the larynx. We herein report a 51-year-old man with squamous carcinoma of the supraglottic larynx who developed metastatic nodules on the neck and scalp. The patient underwent total laryngectomy and radiotherapy. A 3-month postoperative follow-up after the radiotherapy, firm, fixed, nontender 1.5 and 2 cm in diameter nodular ulcerated and crusted lesions on the neck and scalp nodular lesions were observed. The pathological diagnosis of an excised nodule was metastatic squamous cell carcinoma. Further diagnostic investigations revealed multiple metastatic lesions in the lung. Additional chemotherapy was started, but his general condition deterioriated, and he died 3 months later from disseminated pulmonary tumor infiltrations.

Key Words: Laryngeal neoplasms, neoplasm metastasis.

ÖZET Larinks kanserinin kutanöz metastazı oldukça nadir görülür ve kötü prognozu gösterir. Literatürde larinks kanseri nedeniyle kutanöz metastaz bildiren çok az sayıda yayın vardır. Biz, burada supraglottik laringeal skuamöz hücreli kanser nedeniyle boyun ve saçlı deride metastatik nodülleri gelişen 51 yaşındaki hastayı sunuyoruz. Hastaya total larinjektomi ve radyoterapi uygulanmıştı. Radyoterapiden 3 ay sonra takipte boyun ve saçlı deride sert, fikse, hassas olmayan 1.5 ve 2 cm çaplarında ülsere ve krutlu nodüler lezyonlar gözlendi. Eksize edilen nodülün patolojisi metastatik skuamöz hücreli kanser olarak geldi. İleri araştırmalar sonucu akciğerde çok sayıda metastatik lezyon saptandı. Ek olarak, kemoterapi başlandı ancak hastanın genel durumu kötüleşti ve yaygın akciğer tümör infiltrasyonu nedeniyle öldü.

Anahtar Kelimeler: Larinks tümörleri; tümör metastazı

Turkiye Klinikleri J Dermatol 2009;19(4):218-20

Squamous cell carcinoma (SCC) is the most common malignant neoplasm of the larynx.[1] The frequency of distant metastasis in SCC of the larynx is between 6.5-7.2%.[2] The most common metastatic localizations are usually the lungs, bone, esophagus and less frequently mediastinum, liver, heart and brain.[2,3] Skin metastasis from SCC of the laryngeal carcinoma is exceedingly rare and indicates a poor prognosis.[2,4] We report the case of SCC of the larynx who developed metastatic nodules on the neck and scalp.

CASE REPORT

A 51-year-old man, smoker for 35 years, presented to our clinic with a history of multiple painless nodules on the neck and scalp for one month. One

year before presentation, he had been diagnosed with T2N2MO; stage IVA, moderately differentiated SCC of the supraglottic larynx. He had undergone a total laryngectomy with resection of the cervical lymph nodes. After surgery, he was treated with radiotherapy. A 3-month postoperative follow-up after the radiotherapy, nodular lesions were observed.

On presentation in our clinic, physical examination revealed firm, fixed, nontender 1.5 and 2 cm in diameter nodular ulcerated and crusted lesions on the neck and scalp (Figure 1 a, b). Skin biopsy from the scalp showed a solid tumor with infiltration into the dermis, islands of atypical squamous cells, and a few squamous eddies (Figure 2 a, b). These findings were consistent with metastatic SCC.

The positron emission tomography (PET) scan revealed multiple metastatic lesions in the lung and histopathological examination of this lesion confirmed the presence of a metastatic SCC. Treatment with chemotherapy comprising docetaxel, cisplatin and 5-fluorouracil (DCF regimen) was started, but his general condition deterioriated, and he died 3 months later from disseminated pulmonary tumor infiltrations.

DISCUSSION

Cutaneous metastases from carcinoma are relatively uncommon in clinical practice. Metastases to skin sites from SCC of the head and neck are also extremely rare.[5] SCC is responsible for 95% of carcinoma of the larynx in adults. It represents

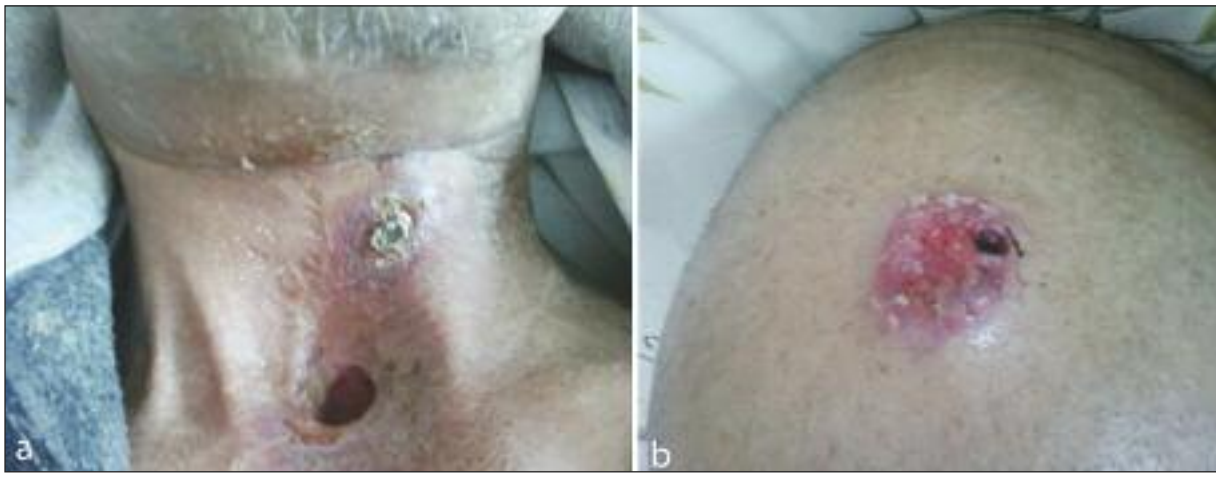

FIGURE 1 a, b: Clinical appearance of cutaneous lesion: ulcerated and crusted nodules on the scalp and neck.

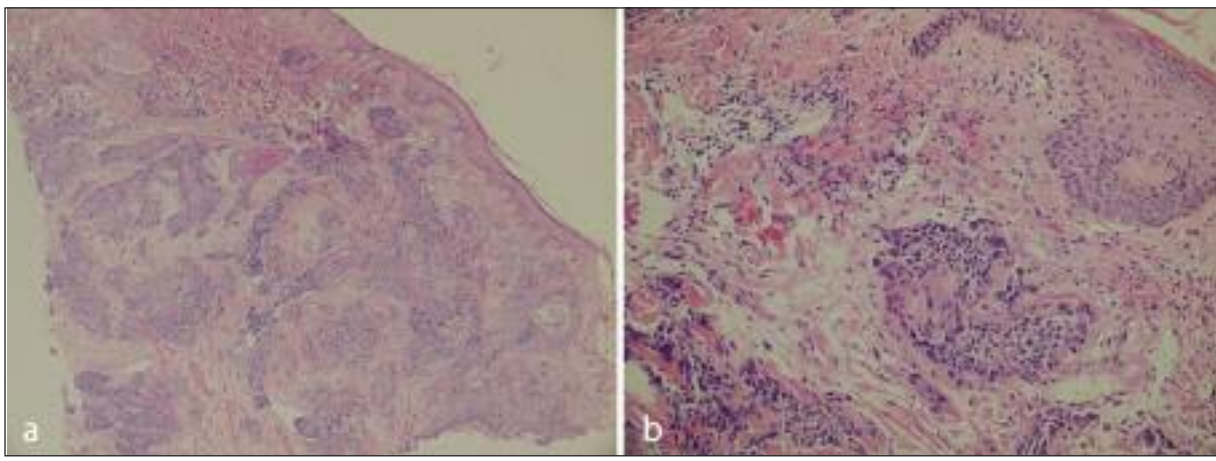

FIGURE 2: (a) Squamous cell carcinoma metastases to dermis shows intact epidermis and invasive tumor islands were seen **(b)** a solid tumor with infiltration into the dermis, islands of atypical squamous cells, and a few squamous eddies (Hematoxylin and eosin stain (a) x100; (b) x200).

less than 1% of all cases of metastases associated with these tumors.[3] Distant skin metastases from laryngeal cancer have been described in laryngeal SCC, adenocarcinoma and laryngeal atypical carcinoid.[2]

The site of skin metastasis in SCC of the larynx is variable. It often affects the supradiaphragmatic area, ie. the head, neck, thorax or upper extremities, as in our report.[2] Distant cutaneous metastases to the infradiaphragmatic skin are exceedingly rare in the absence of iatrogenic tumor seeding.[4,6] Suggested mechanisms for the development of supradiaphragmatic metastases encompass disruption of the normal lymphatic drainage system secondary to surgical excision of the primary tumor and/or radiation therapy whereas infradiaphragmatic metastases often results from hematogenous spread or retrograde communications between thoracic and abdominal lymphatics.[2,3]

The most clinical patterns of skin metastasis of laryngeal cancer include painless multiple or solitary nodules or erythematous macular lesions that may mimic an infectious process.[7] Occasionally ulcerated nodules can also be seen. The other distinctive skin lesion frequently observed in patients after laryngectomy is stomal recurrence which has been defined as an involvement of skin around a tracheostoma.[2] Moreover, inflammatory carcinoma and zosteriform patterns of skin metastasis in laryngeal SCC can also be seen.[4,8]

The diagnosis of a metastasis from SCC of the larynx primary cancer is supported by the presence of a heavy dermal component that has no connection with the epidermis allowing distinction from primary cutaneous squamous carcinoma.[6]

The average time to presentation of skin metastasis in SCC of the larynx has been reported at between 1 and 39 months, with 75% appearing by 18 months.[3] The prognosis is extremely poor and treatment is aimed only at palliation of symptoms and improving quality of life.[9]

In conclusion, we reported this case because of the rarity of cutaneous metastasis from SCC of the larynx. Dermatologists should be aware of the various manifestations of cutaneous metastasis from a larynx carcinoma and other malignancies. Biopsy is essential to confirm the diagnosis of the underlying malignancy whenever new cutaneous nodules appear in a patient with cancer.

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