

Case report

Open Access

Esophageal squamous cell carcinoma presenting with extensive skin lesions: a case report

GB Iwanski*¹, A Block¹, G Keller¹, J Muench¹, S Claus², W Fiedler¹ and C Bokemeyer¹

Address: ¹Department of Internal Medicine, Oncology and Hematology, University Hospital Hamburg, Eppendorf, Martinistrasse, 20246 Hamburg, Germany and ²Department of Internal Medicine, Bethesda Hospital, Hamburg, Germany

Email: GB Iwanski* - g.iwanski@uke.uni-hamburg.de; A Block - block@uke.uni-hamburg.de; G Keller - keller@uke.uni-hamburg.de; J Muench - muench@uke.uni-hamburg.de; S Claus - claus@bakb.net; W Fiedler - fiedler@uke.uni-hamburg.de; C Bokemeyer - c.bokemeyer@uke.uni-hamburg.de

* Corresponding author

Published: 21 April 2008

Received: 26 September 2007

Journal of Medical Case Reports 2008, **2**:115 doi:10.1186/1752-1947-2-115

Accepted: 21 April 2008

This article is available from: <http://www.jmedicalcasereports.com/content/2/1/115>

© 2008 Iwanski et al; licensee BioMed Central Ltd.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

Introduction: Esophageal squamous cell carcinoma (ESCC) is the most common histological subtype of cancer in the upper and middle esophagus and is characterized by a high rate of mortality. The incidence of esophageal cancer varies greatly among regions of the world and occurs at a high frequency in Asia and South America.

Case presentation: In our department, a 51-year-old man was diagnosed with ESCC after presenting with extensive disseminated skin nodules. Biopsy of the nodules showed metastatic ESCC. Cutaneous manifestations of esophageal neoplasia are very rare and are mainly described for esophageal adenocarcinoma (EADC). Here we report a very uncommon case of extensive skin metastases of ESCC.

Conclusion: Early biopsies of suspicious skin lesions are important and should be performed in patients with unclear symptoms such as weight loss or dysphagia and especially in patients with a history of cancer, since they can reveal the existence of a distant malignant disease leading to diagnosis and prompt therapy.

Introduction

Cancer of the esophagus is the ninth most common malignancy and ranks as the sixth most frequent cause of cancer death in the world, constituting 7% of all gastrointestinal cancers [1]. Patients with esophageal cancer usually present with disease that is locally advanced and which has already metastasized stage at the time of initial diagnosis. Cancer of the esophagus exists in two main forms with different etiological and pathological characteristics: esophageal squamous cell carcinoma (ESCC) and esophageal adenocarcinoma (EADC). ESCC is the

predominant histological subtype, comprising about 70% of cases [2].

In general, skin metastases from malignant tumors of the internal organs are rarely seen, with a frequency of between 0.7 and 9% [3-5]. The overall survival rate varies from 4.3 to 4.7 months [6]. The cancer types most commonly associated with cutaneous metastases are breast, lung and melanoma [4,7,8]. Metastatic spread to the skin occurs either hematogenously or via the lymphatic system and presents in the form of rapidly growing papules or

nodules [9,10]. On histopathology, clusters of atypical cells infiltrating the dermis without connection to the adjacent epidermis can be seen [6]. Here we report an uncommon case of massive cutaneous metastases of ESCC in a 51-year-old man.

Case presentation

A 51-year-old man was admitted to our department with a four-week history of dysphagia, weight loss and nausea. He had a medical history of multiple sclerosis since April 2004 and a smoking history of 30 pack-years. The patient underwent esophagogastroduodenoscopy resulting in the diagnosis of esophageal carcinoma located in the mid-thoracic part of the esophagus. Histology of an endosonography-guided biopsy showed an intermediate grade ESCC according to the criteria of the American Joint Committee of Cancer (AJCC). Moreover, the patient presented with approximately 20 diffuse, painless and solid skin nodules that were about 1–3 cm in diameter, found all over his body surface including the scalp, upper extremities, axillae, back, chest and abdominal wall. According to the patient they had been growing rapidly over the previous four weeks, and he had noticed the first skin lesion more than two months earlier. Excisional biopsy of one representative prominent cutaneous formation on the abdominal wall was performed. On macroscopic inspection, the lesion was superficially ulcerated and measured 2 cm × 3 cm (Figure 1). Histopathology revealed nodulous skin infiltration of intermediate grade ESCC (Figure 2). Interestingly, staging by thoracoabdominal computed tomography (CT) scan showed some of these skin lesions (Figure 3). Extensive mediastinal lymph nodes and multiple osteolytic lesions of the spine were also detected without signs of any other tumor manifestation (T1-2, N1, M1, G2; ESCC state IV). The patient subsequently received palliative chemotherapy with cisplatin (80 mg/sqm) and 5-fluoruracil (1,000 mg/sqm) given over four days every three weeks. After three cycles of chemotherapy, the cutaneous metastases became smaller, but some appeared in new areas.

Discussion

Due to the extreme rarity of cutaneous metastases from ESCC, there are only limited data in the literature regarding their incidence. Fereidooni and colleagues reported a solid facial skin metastasis of EACC [11]. Two additional cases have been published discussing solitary metastases on a digit from an unusual variant of ESCC, the basaloid squamous cell carcinoma [12,13]. Schoenlaub and colleagues reviewed the clinical findings and overall survival of 200 patients with cutaneous metastases of various cancers. The incidence of cutaneous metastases from EACC was 2 out of the 200 cases studied [6]. The cancers most frequently causing cutaneous metastases were breast cancers ($n = 64$), pulmonary cancers ($n = 36$) and melanomas



Figure 1
Representative ESCC skin metastasis on the abdominal wall Diameter 2–3 cm.

($n = 31$) [6]. Reingold reported clinical and necropsy findings of 32 cases out of 2,300 internal carcinomas. The most common primary site was the lungs (50%). The esophagus was the primary tumor site in just one case and this was an adenocarcinoma. The most common sites of skin metastases were on the chest and abdomen [14]. Lookingbill et al reviewed 420 patients with cutaneous metastases from melanoma and carcinoma [9]. In this study, tumor registry data from 7,608 patients was evaluated; 4,020 of these patients had metastatic disease and 420 (10.4%) had cutaneous metastases. The most common primary tumors causing cutaneous metastases were melanoma ($n = 77$) and breast cancer ($n = 212$). The esophagus was the primary site in only three cases, spread-

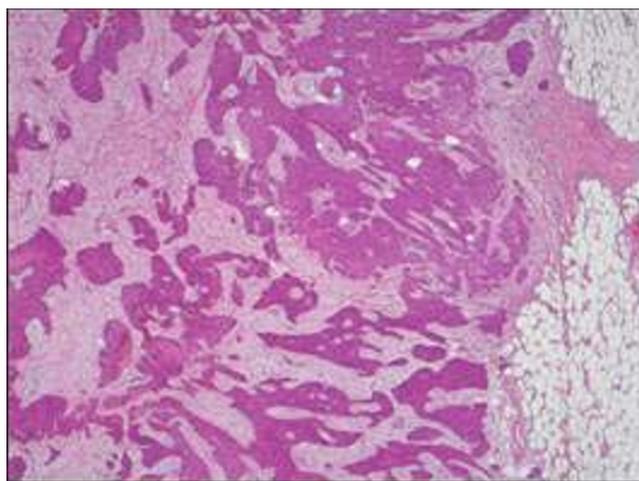


Figure 2
Histopathology. Infiltration of cutis and subcutaneous fat by intermediate grade atypical squamous cell clusters (HE).



Figure 3
Thoraco-abdominal CT scan showing two representative cutaneous metastases (arrows).

ing mainly to the chest and abdomen [9]. Tharakaram described five cases of skin metastases from ESCC in male patients [15].

Conclusion

Skin manifestations of ESCC are extremely rare and only a small number of cases with solid skin metastases have been reported. A case of ESCC with such diffuse and massive skin metastases, most likely indicating highly aggressive disease, has not been described previously. Our patient complained about these unusual cutaneous metastases before any of the more usual symptoms such as dysphagia or weight loss were manifested.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

GBI initiated the report and undertook the majority of the writing of the manuscript. AB made substantial contributions to the conception and design of the report and was involved in drafting the manuscript. GK, JM and SC made contributions to the conception and design of the report and was involved in drafting the manuscript. WF and CB made substantial contributions to the conception and design of the manuscript and revised it critically for important intellectual content. All authors read and approved the final manuscript.

Consent

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Acknowledgements

We thank A Niendorf MD and K Hamper MD for providing histopathological figures, T Götsche MD for radiological diagnosis and HANSERAD for providing the CT scan pictures.

References

- Levine MS, Halvorsen RA: **Carcinoma of the esophagus**. In *Textbook of Gastrointestinal Radiology* Edited by: Gore RM, Levine MS. Philadelphia, PA: Saunders; 2000:403-433.
- Parkin DM, Bray F, Ferlay J, Pisani P: **Estimating the world cancer burden: Globocan 2000**. *Int J Cancer* 2001, **94**:153-156.
- Spencer PS, Helm TN: **Skin metastases in cancer patients**. *Cutis* 1987, **39**:119-121.
- Lookingbill DP, Spangler N, Sexton FM: **Skin involvement as the presenting sign of internal carcinoma**. *J Am Acad Dermatol* 1990, **22**:19-26.
- Rosen T: **Cutaneous metastases**. *Med Clin North Am* 1980, **64**:885-900.
- Schoenlaub P, Sarraux A, Grosshans E, Heid E, Cribier B: **Survival after the occurrence of cutaneous metastasis: a study of 200 cases**. *Ann Dermatol Venereol* 2001, **128**:1310-1315.
- Brownstein MH, Helwig EB: **Patterns of cutaneous metastasis**. *Arch Dermatol* 1972, **105**:862-868.
- Schoenlaub P, Meyer P, Heid E, Grosshans E, Cribier B: **Métastases cutanées révélatrices d'un cancer méconnu. Étude anatomoclinique de 40 cas**. *Ann Dermatol Venereol* 1998, **35**:90-91.
- Lookingbill DP, Spangler N, Helm KF: **Cutaneous metastases in patients with metastatic carcinoma: A retrospective study of 4020 patients**. *J Am Acad Dermatol* 1993, **29**:228-236.
- Schwartz RA: **Cutaneous metastatic disease**. *J Am Acad Dermatol* 1995, **31**:161-182.
- Fereidooni F, Kovacs K, Azizi MR, Nikoo M: **Skin metastasis from an occult esophageal adenocarcinoma**. *Can J Gastroenterol* 2005, **19**:673-676.
- Houston JD, Telepak RJ: **An isolated digital metastasis of esophageal basaloid squamous cell carcinoma**. *Clin Nucl Med* 2000, **25**:557-558.
- Silfen R, Amir A, Tobar A, Hauben DJ: **The digital pulp as a presenting site of metastatic esophageal carcinoma**. *Ann Plast Surg* 2001, **46**:183-184.
- Reingold IM: **Cutaneous metastases from internal carcinoma**. *Cancer* 1966, **19**:162-168.
- Tharakaram S: **Metastases to the skin**. *Int J Dermatol* 1988, **27**:240-242.

Publish with **BioMed Central** and every scientist can read your work free of charge

"BioMed Central will be the most significant development for disseminating the results of biomedical research in our lifetime."

Sir Paul Nurse, Cancer Research UK

Your research papers will be:

- available free of charge to the entire biomedical community
- peer reviewed and published immediately upon acceptance
- cited in PubMed and archived on PubMed Central
- yours — you keep the copyright

Submit your manuscript here:
http://www.biomedcentral.com/info/publishing_adv.asp

