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Multiple Cutaneous Metastases from Esophageal Adenocarcinoma

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Abstract
Introduction Cutaneous metastases from internal malignancies are very common. We describe an extremely rare case of multiple cutaneous metastases from esophageal adenocarcinoma.
Case Report A month before the patient came to us, he had presented to the ER for evaluation of skin lesions and was sent home on a 1-week course of oral antibiotics. He later presented with dysphagia and was diagnosed with esophageal adenocarcinoma and biopsy of the skin lesions revealed metastases.
Discussion This report stresses the importance that newly appearing skin lesions may be the first presentation of esophageal carcinoma.

Keywords esophageal adenocarcinoma · cutaneous metastases

Case Report

A 54-year-old African-American male presented with difficulty swallowing and multiple "swellings on the back" since the last 2–3 months. The difficulty in swallowing had gradually progressed which was worse with solids than liquids. He also reported a weight loss of around 40 lbs for the past few months. Around the same time, he had been noticing multiple, large painless nodules especially on his back which had been slowly increasing in size. He presented to the ER a month prior to admission for evaluation of these nodules and was sent home on a 1-week course of oral antibiotics. There was no significant past medical or surgical history. He took no medications on a regular basis and had never been hospitalized. He had a long history of gastroesophageal reflux disease (GERD) symptoms, alcohol abuse, drinking one to two beers for 30–35 years, and smoking half a pack of cigarettes daily for 30–35 years.

He had a blood pressure of 146/84, heart rate of 68/min, temperature of 98.1°F, and respiratory rate of 16/min. Examination of the back revealed multiple, soft, nontender, mobile, nonfluctuant, subcutaneous masses ranging from 2.5 to 7.5 cm in diameter all over the back. The nape of the neck demonstrated a 10× 7.5× 7.5-cm nontender, nonfluctuant, subcutaneous swelling with thickened skin over it (Figs. 1, 2, 3, and 4). There was a 1.5× 1.5-cm soft, nontender, mobile, swelling around 5 cm below his left eyelid. A 5× 5-cm mobile, subcutaneous swelling was palpated in the left upper quadrant just below the sternal margin. There was also a 2.5× 2.5-cm firm nontender, nonfluctuant subcutaneous swelling in the left inguinal region along with multiple small palpable bilateral inguinal lymph nodes. There were no palpable supraclavicular or periumbilical lymph nodes. Computed tomography scan demonstrated bilateral pleural effusions, hepatomegaly, and lower esophageal intraluminal filling defects.

Hospital Course Upper gastrointestinal endoscopy found an ulcerated, polypoid mass obstructing the distal esophagus extending into the cardia of the stomach. Biopsy demonstrated infiltrating poorly differentiated adenocarcinoma with some areas having a signet ring cell carcinoma pattern. Biopsy of one of the skin lesions on the back also demonstrated histology similar to the biopsy from the

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Fig. 1 Metastatic nodules over the neck and back

Fig. 3 Close up of the metastatic nodules over the trunk

esophagus, confirming that the cutaneous lesions were metastases from the esophageal malignancy (Figs. 5 and 6).

The patient was started on chemotherapy with 5-flurouracil and carboplatin as surgical excision was not deemed to be of benefit considering the metastases.

Discussion

Esophageal carcinoma has one of the highest mortality rates of all cancers. The incidence of esophageal carcinoma in the United States is approximately three to six cases per 100,000 persons. The two most common types of carcinoma arising in the esophagus are squamous cell carcinoma and esophageal adenocarcinoma. Until the 1970s, squamous cell carcinoma was the most common type of esophageal cancer (90–95%) and it affected mostly African-American men who had a long history of smoking and alcohol consumption. Currently, adenocarcinoma accounts for more than 50% of all new cases of esophageal cancer. Unlike squamous cell carcinoma, its pathogenesis is linked to GERD.

Lymphatic metastases usually involve the celiac and cervical nodes while hematogenous metastases most often affect the liver and lungs. The skin accounts for only 1% of all metastases from esophageal carcinoma [1].

In a 1990 study of 7,316 cancer patients with metastases to the skin, there was no report of esophageal origin for any metastases [2]. Also, in a 1993 study of 4,020 patients with metastases to the skin, only three metastases were of esophageal origin [1]. In another study published in 1995, out of 838 patients with esophageal carcinoma, only two presented with metastatic disease to the skin [3]. Esophageal carcinoma metastasizing to the skin is very uncommon with only eight published case reports found in English literature to date (Table 1) [4–11].

Fig. 2 Close up of the metastatic nodule over the nape of the neck

Fig. 4 Close up of the metastatic nodules over the right shoulder

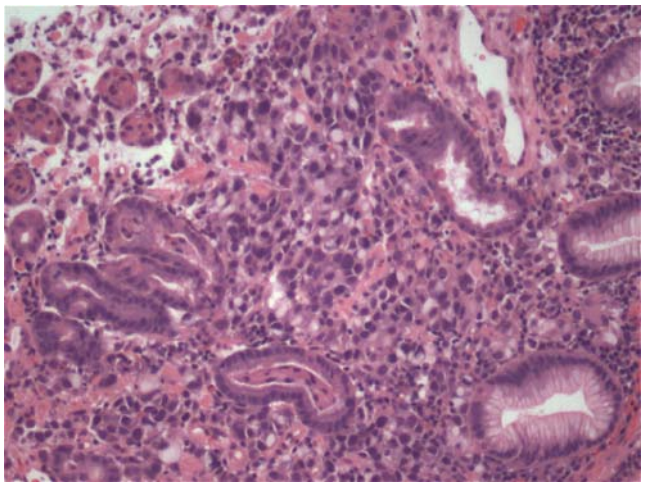

Fig. 5 Histologic section of the biopsy of the esophageal mass showing the tumor and a few benign glands being pushed apart

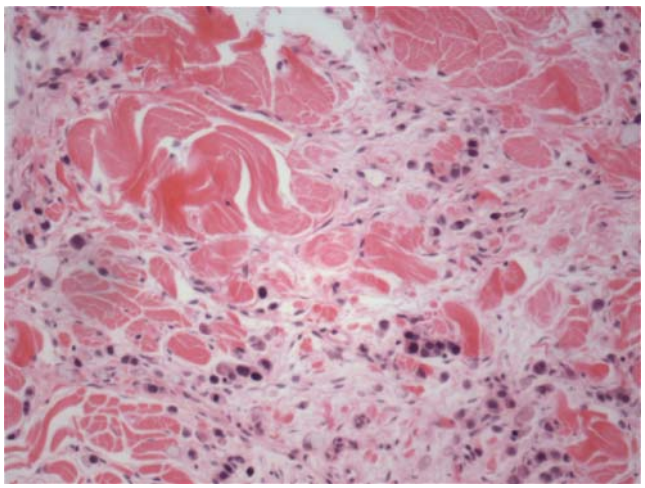

Fig. 6 Histologic section of the needle biopsy of the skin mass showing bundles of collagen from the dermis being pushed apart by the infiltrating tumor

Table 1 The eight published case reports of esophageal carcinoma metastasizing to the skin

Case report	Age of patient (years)	Type of esophageal carcinoma	Site of skin metastasis
Riley et al.	81	Adenocarcinoma	Left temple
Hedeshian et al.	59	Adenocarcinoma	Back
Fereidooni et al.	62	Adenocarcinoma	Left cheek
Roh et al.	67	Adenocarcinoma	Scalp
Stein et al.	72	Adenocarcinoma	Scalp
Smith et al.	61	Adenocarcinoma	Trunk
Iwanski et al.	51	Squamous cell carcinoma	Scalp, trunk
Silfen et al.	75	Squamous cell carcinoma	Finger

Our case is unique in several ways. It is the first reported case of multiple skin metastases from an esophageal adenocarcinoma simultaneously involving the back, face, abdomen, and inguinal area. The size of the lesions, especially at the back, was considerably larger than those described in the previous case reports. The concomitant presentation of both dysphagia and skin lesions is also distinctive, as the previous reports presented either with skin lesions or dysphagia but not both at the same time.

The workup of patients presenting with metastatic lesions to the skin should be based on an accurate medical history, physical examination, imaging, and histological analysis. Because cutaneous lesions are readily accessible for histological evaluation, skin biopsy in cases of suspected metastasis is useful to confirm the diagnosis. Although the diagnosis of metastatic adenocarcinoma or squamous cell carcinoma does not determine the site of the primary tumor, the histological picture may produce some clues. For example, the presence of signet ring cells may indicate cancer of the gastrointestinal tract.

Our case stresses the importance of keeping the diagnoses of esophageal carcinoma in the differential of a patient presenting with dysphagia and skin lesions.

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