

Painful Cutaneous Metastases From Esophageal Carcinoma

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Cutaneous metastases, which are not included among the painful dermal tumors, are primarily asymptomatic and of variable clinical appearance. Although, to our knowledge, this case report of painful cutaneous metastases is only the fifth in the literature, physicians who discover a painful tumor perhaps now should consider cutaneous metastasis. In this report, we describe painful nodular scalp lesions related to esophageal adenocarcinoma, which rarely metastasizes to the skin.

Cutaneous metastasis from internal malignancy is uncommon but not rare and is reported most frequently after the fourth decade of life. Typically, cutaneous metastases present as firm asymptomatic nodules. These nodules, which may be red, blue, or skin colored, usually occur in multiple arrays on the skin adjacent to the primary tumor. Metastases also may occur distant from the primary tumor, and several primary tumors metastasize to the scalp in particular.¹ Scalp metastases usually present as nodules, but alopecia neoplastica (hair loss in circumscribed areas) also may develop. Alopecia neoplastica is associated with metastatic breast cancer and with lung or kidney tumors,¹ the most common primary tumors in women and men, respectively. Less often, scalp metastases resemble cylindromas or pilar cysts. These usually metastasize from prostate cancer but also may occur with breast or colon cancer.² Despite their variable clinical appearance, scalp metastases are typically asymptomatic. In this case report, we describe painful nodular scalp lesions related to esophageal adenocarcinoma. This case is significant because it is one of the few reported cases involving

painful cutaneous metastasis and because cutaneous metastasis from esophageal adenocarcinoma is extremely rare.

Case Report

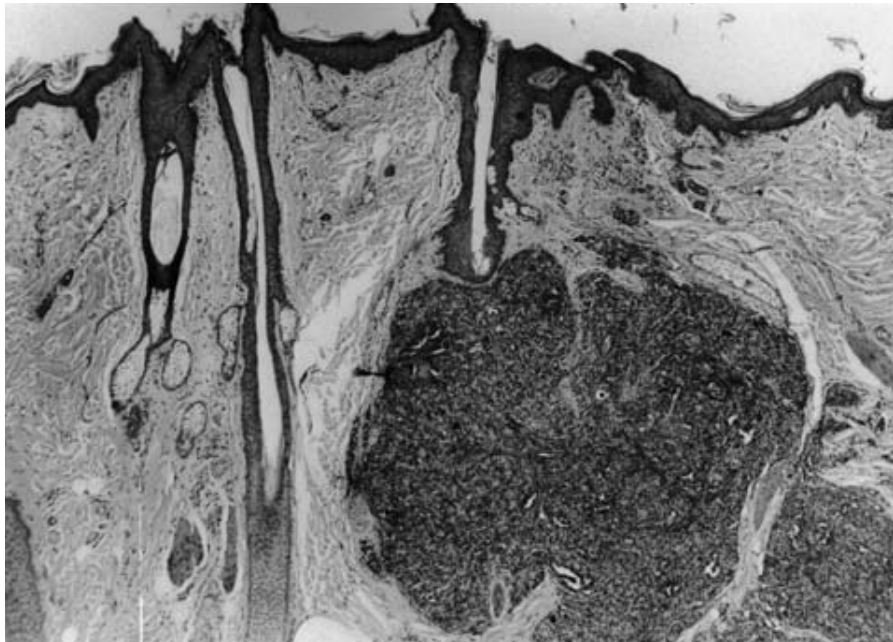
A 72-year-old man presented with painful scalp lesions. His medical history included lower esophageal adenocarcinoma with local extension into the ribs that was treated with surgery, radiotherapy, and chemotherapy. His medical history also included excised encapsulated prostate cancer. The patient had 2 small (<1 cm) and exquisitely tender nodules on the left occiput and 1 small (<1 cm) and tender cystic nodule on the left postauricular region. The largest lesion on the occiput was excised for histopathologic examination, and the finding was adenocarcinoma, probably metastatic (Figure). This tumor was positive for carcinoembryonic antigen and negative for mucicarmine; it was also negative for prostate-specific antigen (PSA), which suggests esophageal rather than prostatic origin.

Four more scalp nodules developed before the first follow-up—a 1-cm nodule on the right occiput, an 8-mm erythematous papule on the right base of the skull, an 8-mm erythematous papule on the right parietal scalp, and an 8-mm erythematous papule on the left parietal scalp. Because all these lesions were painful, palliative excisions were performed, and the wounds were closed with 4-0 Monocryl sutures. The patient was treated with chemotherapy. He died from his carcinoma approximately 1 year later.

Comment

Esophageal cancer rarely metastasizes cutaneously. In a 1990 study of 7316 cancer patients with metastases to the skin, there was no report of esophageal origin for any metastasis.³ Also, in a 1993 study of 4020 patients with metastases to the skin, only 3 metastases were of esophageal origin.⁴ Whereas most esophageal cancers are squamous cell epithelial cancers, our patient had the less common esophageal adenocarcinoma. (Only 5%–30% of esophageal cancers are adenocarcinoma.⁵)

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Adenocarcinoma in the dermis (H&E, original magnification $\times 40$).

Esophageal adenocarcinoma is associated with a premalignant condition, Barrett esophagus, which results from chronic reflux esophagitis, in which stratified squamous mucosa is replaced by glandular gastriclike mucosa. Most adenocarcinoma occurs at or near the gastroesophageal junction, as was the case with our patient.⁵

Our patient's prostate cancer was also adenocarcinoma, consistent with most prostate cancer. His PSA-negative stain was helpful in determining that his metastasis was from esophageal cancer. Antibodies to PSA are used principally in evaluating metastases from unknown primary tumors⁶; therefore, PSA staining was not performed on our patient's prostate cancer after resection, even though staining probably would have been PSA-positive. In a study of 899 cases of prostate cancer, only 14 (1.6%) were PSA-negative—an incidence attributed to focal positivity that may not have been sampled.⁶ Metastases remain positive for PSA; in one study, 94% of metastases from prostate cancer were PSA-positive.⁷ Further evidence that esophageal cancer was our patient's primary tumor for scalp metastases is that his excised prostate cancer was encapsulated. *Encapsulation* is a term used to describe that no tumor has extended out from the prostate into periprostatic soft tissue, though the prostate lacks a discrete histologic capsule.⁸

Cutaneous metastases are not included among the painful dermal tumors (Table 1), but, to our knowledge, 5 cases of painful cutaneous metastases have now been reported in the literature (Table 2);

Table 1.

Painful Dermal Tumors*

Blue rubber-bleb nevus
Leiomyoma
Eccrine poroma/eccrine spiradenoma
Neuroma
Dermatofibroma/Dercum's disease (adiposis dolorosa)
Angiolipoma
Neurilemoma
Endometrioma
Glomus tumor
Granular cell tumor

*A mnemonic tool is "BLEND AN EGG."

perhaps this category should be considered when a painful tumor is discovered. The etiology of the tenderness in our patient's scalp lesions is unknown. These lesions were exquisitely tender and spontaneously painful without touch. Several theories are offered for this sensitivity: small sensory nerves may have been trapped in the lesions; sensory nerves may have been invaded by metastatic disease; the

Table 2.

Painful Cutaneous Metastases in 5 Patients

Study	Primary Tumor	Location(s) of Cutaneous Metastasis
King et al ⁹	Scapular chondrosarcoma	Left shoulder, vulva, right thumb, right middle toe, scalp, mouth
Rodriguez and Villamizar ¹⁰	Gastric antrum carcinoid tumor	Forehead, nape, forearms, lateral chest, thighs
Khan and Cook ¹¹	Adenocarcinoma of splenic flexure of colon	Umbilicus
Zirwas et al ¹²	Transitional cell carcinoma of renal pelvis	Right shoulder
Present case	Esophageal adenocarcinoma	Scalp

lesions may have had an inflammatory reaction; or a reaction to tumor antigens may have enhanced sensitivity to pain and produced substances that generate pain through release of excess cytokinins. In our patient's case, simple excision provided palliative symptomatic relief.

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