CASE REPORT

Cutaneous metastasis from gastrointestinal adenocarcinoma of unknown primary origin*

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Abstract: Cutaneous metastasis is a rare manifestation of visceral malignancies that indicates primarily advanced disease. Due to its low incidence and similarity to other cutaneous lesions, it is not uncommon to have a delayed diagnosis and a shortened prognosis. We describe the case of a patient who presented with a cutaneous nodule in the sternal region as a first sign of malignancy.
Keywords: Biopsy; Gastrointestinal tract; Neoplasm metastasis; Neoplasms, Unknown primary

INTRODUCTION

Metastases are discontinuous tumor implants in relation to the primary tumor, which unequivocally define a tumor as malignant.[1] The occurrence of metastasis suggests an aggressive neoplasm, with rapid growth and large size, significantly reducing the possibility of curing.

Cutaneous metastases from visceral malignancies are uncommon, found in only 0.7-9% of all cancer patients. The majority occur in cases of breast, lung, and colon cancer.[2] Cutaneous metastases represent 2% of all skin tumors, and are located in an area near the primary tumor.[3,4] Metastatic cancer of unknown primary is an intriguing phenomenon found in 5-10% of all newly diagnosed cancer patients.[5,6] We describe the case of a patient who presented to the dermatology clinic with a cutaneous nodule in the sternal region as her initial symptom.

CASE REPORT

A 94-year old Caucasian woman presented to the dermatology clinic, complaining of a lesion in the sternal region that had been there for 4 months. On physical examination, we found a purplish, hardened and infiltrated nodule, measuring 3cm in diameter, adhered to deep planes, with discrete peripheral desquamation, telangiectasia, and absence of secretion (Figures 1 and 2). Lymph nodes were not palpable. The patient reported that the lesion had grown since it first emerged. We requested a biopsy of the nodule (Figures 3, 4 and 5). Pathology revealed malignant epithelial neoplasm, characterized by small nodules and proliferation of cords, most of them with well-formed glands and neoplastic cells exhibiting a moderate degree of nuclear polymorphism and hyperchromasia, compatible with infiltration by well-differentiated adenocarcinoma, with histologic appearance of metastatic gastrointestinal adenocarcinoma. The patient was referred to the oncology service. During the investigation, she reported abdominal pain and intestinal constipation, dysphagia, dyspnoea on exertion, muscular and joint pain, and weight loss of 10kg over a year, with 50% of the loss happening in the previous 2 months. Her work-up comprised laboratory and imaging tests. Laboratory revealed a

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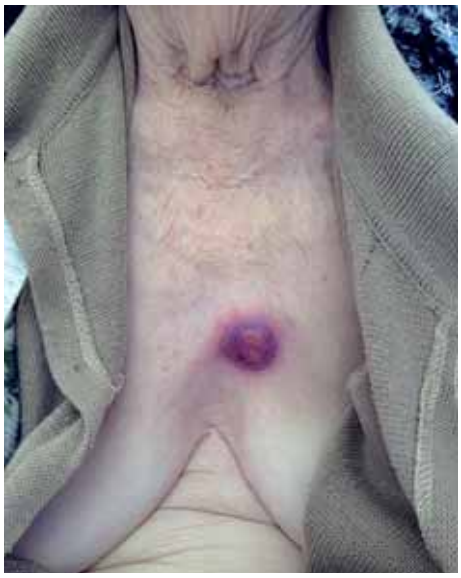

Figure 1: Violaceous nodule of approximately 3cm in diameter in the sternal region

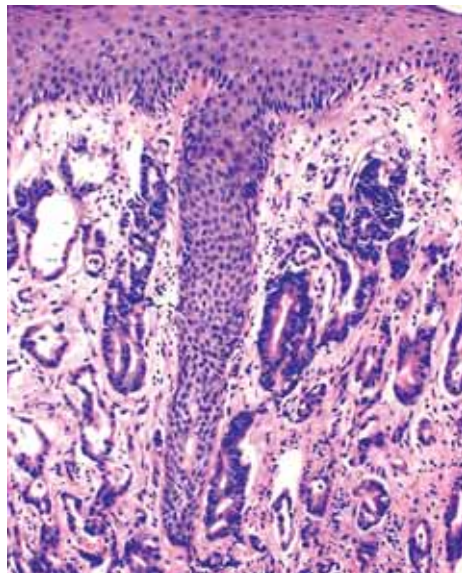

Figure 3: Diffuse dermal infiltration by well-differentiated adenocarcinoma (haematoxylin-eosin 100x)

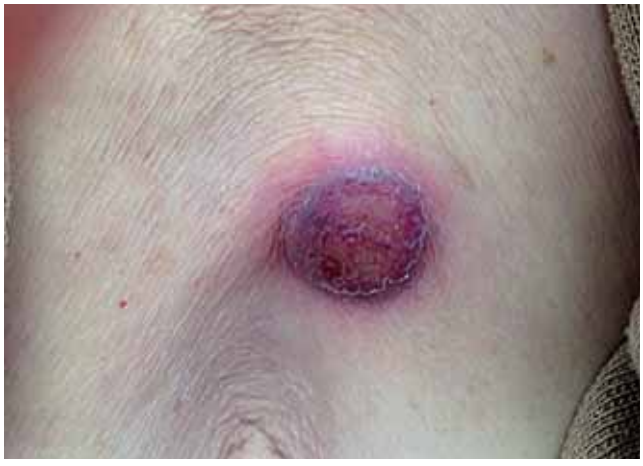

Figure 2: Magnified view of the nodule; presence of discrete peripheral desquamation and telangiectasia

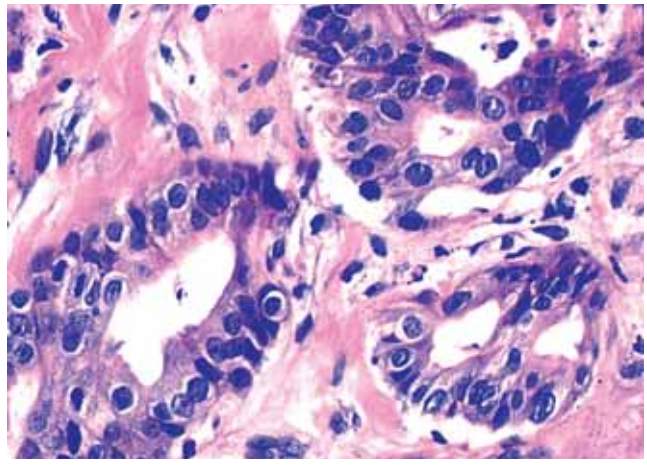

Figure 4: Neoplastic glands with cribiform appearance on detail (haematoxylin-eosin 400x)

hemoglobin of 8.4g/dL, carcino-embryogenic antigen (CEA) of 15.5ng/ml, CA-15-3 of 62.6U/ml, and CA 19-9 > 10000U/ml. Abdominal ultrasonography showed a mild, fat infiltration in the liver, suggesting steatosis stage 1, while Doppler ultrasonography of lower limb revealed extensive thrombosis in the left lower limb. The patient died after one month.

DISCUSSION

The gastrointestinal tract is the second most common extracutaneous cancer site and the second leading cause of death related to cancer in the USA. [7] There is also a high prevalence in Brazil. Esophagus cancer is the eighth most common, gastric cancer is the fourth and sixth most common in men and women respectively, while colon and rectal cancer are the third

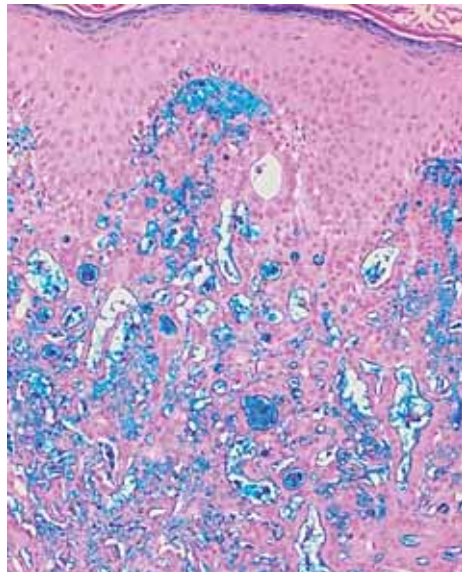

Figure 5: Positivity staining for mucin. Colloidal iron (100x).

most common in men and the second in women. [8]

Cutaneous metastasis as the first manifestation of internal malignancy is an unusual phenomenon and indicates advanced stage disease. Unless the lesion on the skin grows fast, or other sites such as the lungs and liver are concomitantly affected by the tumor´s spread, exhibiting symptoms, the diagnosis may be delayed for several months. [9,10]

Metastatic cancer of unknown primary is defined as histologically confirmed metastasis in the absence of an identifiable primary tumor, despite exploration via a standardized diagnostic approach. [5,6]

Skin metastases are classified morphologically as nodular, infiltrative, diffuse or intravascular, and top heavy or bottom heavy. Top heavy and bottom heavy patterns refer respectively to cutaneous cellular infiltrates with a large base in the superficial or deep part of the dermis. [3]

In the case in question, the cutaneous nodule entailing progressive growth over 4 months was the clinical sign that caused the patient to seek medical care. This presentation led to some differential diagnoses such as dermatofibrosarcoma, basal cell carcinoma, squamous cell carcinoma and merckloma. Biopsies have a fundamental role in accurately diagnosing such cases.

Due to advances in cancer therapy, the life expectancy of patients with cutaneous metastases has increased, though cutaneous metastases remain a poor prognostic sign.

This case emphasizes that newly appearing skin lesions involving progressive growth either do not heal after conventional therapy, may be the first presentation of advanced visceral cancer and should be appropriately investigated. Thus a full clinical dermatological examination must always be performed. Furthermore, persistent indurated erythema, along with all skin plaques of undetermined causes, must be biopsied to rule out a dignosis of cutaneous metastasis from visceral malignancy. ❑

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