

Dermoscopy of scalp cutaneous metastasis of sigmoid adenocarcinoma



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INTRODUCTION

Cutaneous metastases from internal malignancy represent approximately 0.001% of all skin biopsies.¹ Cutaneous metastasis is a widespread disease with a poor prognosis.² This disease is typically secondary to malignant melanoma, or carcinoma of the lung or the breast and rarely arises from colorectal adenocarcinoma.³ However, in the event that cutaneous metastases arise from colorectal adenocarcinoma, the abdominal skin is the most common site of involvement.³ Distant locations are rarely affected, and less than 10 cases have been reported worldwide in which the cephalic area was affected.⁴⁻¹¹ Here, we report a rare case of scalp skin metastasis from sigmoid colon adenocarcinoma and describe its dermoscopic features.

CASE REPORT

A 79-year-old Saudi man presented to our dermatology department with a complaint of an asymptomatic skin lesion on his scalp which had appeared suddenly within 1 month. The lesion was solitary and stable in size and no other body sites were affected. His medical and surgical history were remarkable for adenocarcinoma of the sigmoid colon with metastasis to the liver and lung. The primary tumor of the sigmoid colon was resected 6 months prior to this visit, and he underwent 2 other resections for liver and lung lesions with recurrence of the tumor at both sites. He underwent several chemotherapy sessions and was currently receiving palliative treatment. Physical examination revealed a

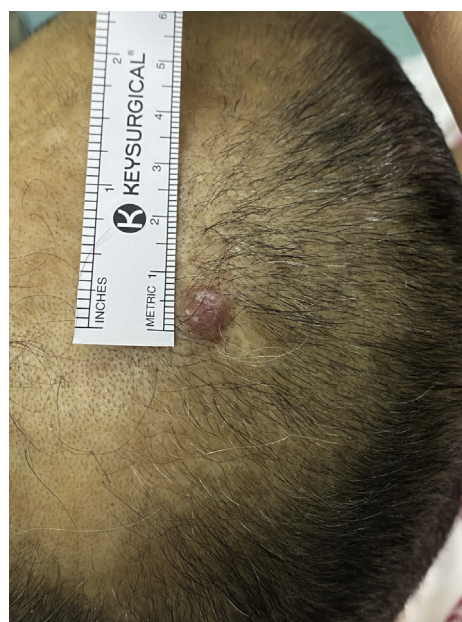


Fig 1. Solitary, firm, asymptomatic pink nodule on scalp, measuring approximately 8 × 7 mm.

solitary, firm, asymptomatic pink nodule on his scalp, measuring approximately 8 × 7 mm (Fig 1).

Dermoscopic examination revealed polymorphic vessels (dotted, linear, and serpentine) and a white structureless area on a pink-to-red background (Fig 2).

The differential diagnoses included cutaneous metastasis, basal cell carcinoma, sebaceous tumors, and amelanotic melanoma. A 4-mm skin punch biopsy was performed and revealed tumor cells with clear cytoplasm occupying the dermis (Fig 3).

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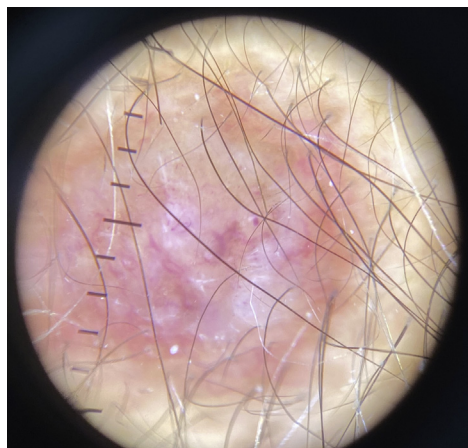


Fig 2. Dermoscopic examination revealed polymorphic vessels (dotted, linear, and serpentine) and a white structureless area on a pink-to-red background.

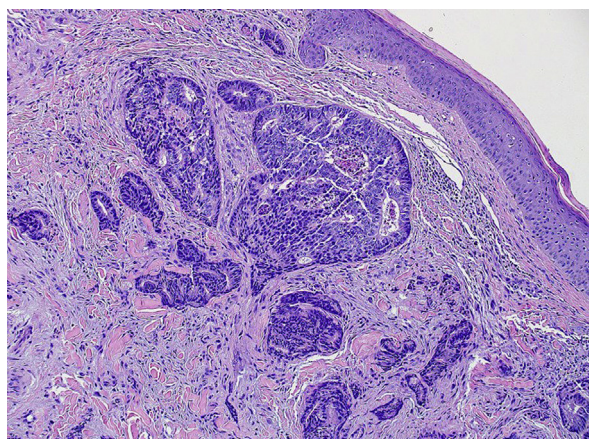


Fig 3. Tumor cells with clear cytoplasm occupying the dermis.

The immunohistochemical stains showed CDX2 positive (strong and diffuse), CK7 negative, and CK20 positive.

On the basis of the clinical picture and histopathologic results, the lesion was diagnosed as cutaneous metastasis consistent with the patient's history of metastatic sigmoid colon adenocarcinoma. The patient refused treatment for his scalp lesion.

DISCUSSION

Melanoma and breast carcinoma are the most common tumors to metastasize to the skin.² Internal malignancies rarely metastasize to the skin and account for less than 10% of cutaneous metastasis cases.² Only 4% of patients with metastatic colorectal carcinomas have metastasis to the skin, and it usually affects the abdominal area.^{2,3} Distant areas, such as the scalp, nose, and eyelids, are rarely reported as a site of colon cancer skin metastasis, and very few cases have been reported.⁴ In our case, cutaneous metastasis occurred in the scalp, which could be explained by hematologic or lymphatic spread of malignant cells.

Cutaneous metastases clinically present with different morphologies, and they must be differentiated from primary skin neoplasms, such as basal cell carcinoma, squamous cell carcinoma, and sebaceous tumors.⁵ The most common presentation is a red-colored nodule, as seen in this case.⁵ Histologic examination with immunohistochemical staining can lead to a correct diagnosis.

There are few reports describing the dermoscopic features of cutaneous metastasis. A summary of dermoscopic features of cutaneous metastasis reported in the literature is provided in [Table I](#).

Table I. Summary of dermoscopic features of cutaneous metastasis reported in the literature

Study	Number of cases	Location of cutaneous metastasis	Primary tumor	Dermoscopic finding
Chernoff et al ¹¹	20	Different body sites	Breast (6 cases), colorectal (3 cases), thyroid (2 cases), and ovarian (2 cases); the remaining were endometrial, gastric, lung, bladder, peritoneal, melanoma, and leiomyosarcoma	<p>Most common dermoscopic finding overall was a vascular pattern. The most frequent subtypes of vascular pattern were:</p> <ul style="list-style-type: none"> • Serpentine (or linear irregular vessels) • Arborizing vessels. <p>Other vascular patterns observed include</p> <ul style="list-style-type: none"> • dotted vessels • comma-shaped vessels. <p>Other features:</p> <ul style="list-style-type: none"> - Hyperpigmentation was noted - Brown streaks and blue-gray globules - An overlying bluish hue, mimicking a blue-white veil - Vascular and melanocytic patterns were present in 1 lesion, with pigmented streaks and dotted vessels

Continued

Table I. Cont'd

Study	Number of cases	Location of cutaneous metastasis	Primary tumor	Dermoscopic finding
De Giorgi et al ¹²	1	Supraclavicular skin	Thyroid carcinoma	Presence of an "atypical" polymorphous vascular pattern consisting of linear irregular and dotted vessels.
Virgili et al ¹³	1	Vulva	Cutaneous melanoma	<ul style="list-style-type: none"> Whitish gray area with a few sparse variously sized and shaped and unevenly distributed brown globules. The gray area was surrounded by a peripheral rim of linear irregular vessels. Parallel brown pattern and central irregularly sized black-to-brown globules adjacent to the nodule.
Minagawa et al ¹⁴	1	Back	Finger cutaneous melanoma	<ul style="list-style-type: none"> Polymorphous vessels, including linear irregular vessels, dotted vessels, and glomerular vessels.
Kelati et al ¹⁵	2	Breast/chest and back	Breast cancer	<p>Dermoscopic features were similar in the 2 cases with findings of:</p> <ul style="list-style-type: none"> Yellow central areas, polymorphic vessels, whitish bright lines, whitish structureless areas linear irregular fissure-like depressions on a pink-orange background.
Liu et al ¹⁶	1	Face	Hepatocellular carcinoma	<ul style="list-style-type: none"> Homogenous, blurry milky-red area, Multiple serpentine and arborizing vessels Some irregular red lacunas over milky-red areas.

In the present case, dermoscopy findings revealed polymorphic vessels (dotted, linear, and serpentine), which corresponds histologically to the disorganized neo-angiogenesis. The white structureless area on a pink-to-red background corresponds histologically to the remodeled new collagen in the dermis that contains the new blood vessels. These features support the findings in previous reports that skin metastatic lesions have a high degree of vascular structure and this may be due to the role of angiogenesis in their pathogenesis.¹¹

Conflicts of interest

None declared.

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