

# Cutaneous Metastases of Rectal Mucinous Adenocarcinoma Mimicking Granuloma Inguinale

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## Abstract

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A 46-year-old man complained of ulcerovegetative lesions in the anogenital region, which he had noted one month prior to presentation. The patient had a history of travel to African countries. Therefore, the ulcerovegetative lesions of the patient were suspected to be granuloma inguinale (GI). *Calymmatobacterium granulomatis* was not observed in the direct examination of scrapings collected from the base of the ulcerovegetative lesion. Instead, a histological examination revealed cutaneous metastasis of mucinous adenocarcinoma of the rectum. Therefore, a diagnosis of GI was eliminated. As the patient did not report his history of rectal cancer and had travelled to African countries, we had primarily focused on the diagnosis of GI.

**Key words:** cutaneous metastasis, rectal cancer, granuloma inguinale, *Calymmatobacterium granulomatis*, mimicking

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## Introduction

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Cutaneous metastasis from colorectal cancer is uncommon and typically signifies widespread disease with a poor prognosis. Colorectal metastases usually occur within the first three years of follow up, and the median survival of patients after the appearance of cutaneous metastatic lesions is 18 to 20 months (1). Although cutaneous metastasis of rectal carcinoma is usually detected around surgical scars or on the abdominal wall, especially in the periumbilical region, it rarely presents at other sites (2). The gross appearance of skin metastases is not distinctive, although skin tumors are usually solid and small (less than 5 cm) painless nodules or papules. They can mimic cysts, lipomas, granulomas and neurofibromas. Therefore, early biopsy of suspicious lesions is very important (1, 3).

In this report, a case of cutaneous metastases of rectal mucinous adenocarcinoma mimicking GI is presented.

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## Case Report

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A 46-year-old man complained of exudating wounds over masses in the anogenital region, which he had noted one month prior. The patient had a history of travel to African countries. On dermatological examination, there were two ulcerovegetative masses in the left inguinal, perianal region that were 2×3 cm and 3×6 cm, respectively, with multiple eroded nodules of 0.5-1 cm in diameter on the scrotal skin (Fig. 1). The ulcerovegetative lesions of the patient were reminiscent of GI. *Calymmatobacterium granulomatis* (CG) was not observed in the direct examination of scrapings from the base of the ulcerovegetative lesion in the left inguinal region. Therefore, a diagnosis of GI was eliminated. A punch biopsy was taken from the lesion in the left inguinal region, and an excisional biopsy was taken from the lesion in the perianal region. The histological examinations of both lesions revealed cutaneous metastasis of mucinous adenocarcinoma of the rectum, and there were no findings of GI

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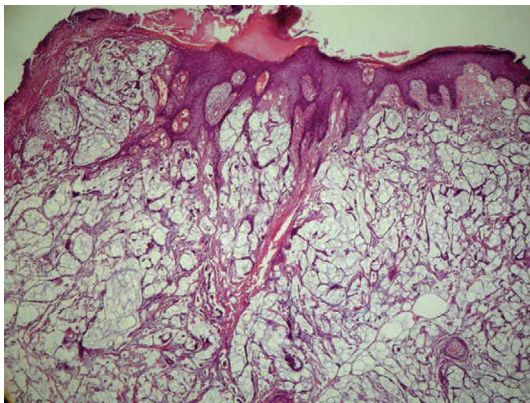
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**Figure 1.** An ulcerovegetative mass in the left inguinal region and multiple eroded nodules on the scrotal skin.



**Figure 2.** Abundant mucin deposition, nearly all of which was extracellular, and atypical epithelial cells around the area of mucin deposition (40× Hematoxylin and Eosin staining).

(Fig. 2). The patient had a history of rectal mucinous adenocarcinoma. He had undergone an operation for rectal cancer a year before his presentation, but did not report this when his history was collected. At that time; there was invasion into the prostate and metastasis to one of two regional lymph nodes without any visceral involvement. The patient was considered to have unresectable adenocarcinoma of the rectum during his operation. A loop colostomy was opened. There was no evidence of other metastases on bone scanning, or on cranial and thorax computerized tomography. The patient was staged as T4N1M0 (stage IIIB) and adjuvant chemotherapy was planned. However, he refused adjuvant chemotherapy.

## Discussion

Cutaneous metastasis from an internal cancer is an uncommon event. Although the true incidence of skin metastasis from internal carcinoma is unknown, it was estimated to range between 0.7% to 10.4% (3). The most common sources of cutaneous metastasis are lung and breast cancers, as well as melanoma (3). Cutaneous metastases from internal malignancy are a result of direct, lymphatic or hematogenous spread of the tumor. Very rarely, the surgical implan-

tation of tumor cells may occur during the original resection (4). Cutaneous metastases from abdominal malignancies are a rare phenomenon, presenting in fewer than 5% of patients and generally being associated with widespread disease and a poor prognosis. Skin metastases of adenocarcinoma of the rectum are even more rare, occurring in fewer than 4% of patients (1).

Lookingbill et al. examined the records of 4,020 patients with metastatic disease, 420 (approximately 10%) of whom had skin metastases (5). There were skin metastases in 18 (4.4%) of the 413 patients with metastatic colon cancer. Eleven of these 18 patients with colon and rectal cancer had only local metastases, and most of these were located at the abdominal incision site (5).

Rectal carcinoma metastases to the skin have no distinctive features, presenting most often as small subcutaneous or intradermal nodules that measure 1 to 2 cm in diameter, with tendency to coalesce. These usually asymptomatic nodules tend to be firm, rubbery and not painful, and are not accompanied by epidermal changes. They can mimic cysts, lipomas, granulomas and neurofibromas. Since these aspects are generally not distinctive, early biopsy of suspicious lesions is very important (1, 3). Microscopically, these metastases usually mimic the primary tumor, although their histologic features may show an anaplastic pattern (6). The patient survival after a diagnosis of skin metastasis ranges from 1 to 34 months.

Lookingbill et al. found an average survival of only 18 months in 18 patients with skin metastases from colorectal carcinoma (5). Although surgical excision is unlikely to confer a survival benefit, it should still be performed for palliation when the patient's quality of life is found to suffer due to the associated symptoms (7).

GI is considered to be a sexually transmitted disease that is endemic in tropical and subtropical regions of the world. The main endemic areas are India, Papua New Guinea, Brazil and South Africa (8). GI is an indolent, progressive, ulcerative bacterial disease caused by CG. It mainly affects the skin and subcutaneous tissue of the genital and perianal areas. GI begins as single or multiple subcutaneous nodules that erode through the skin, producing well-defined ulcerations that grow slowly and bleed readily on contact. The subcutaneous nodule, if large enough, may be mistaken for a lymph node, and is termed a "pseudobubo". The clinical diagnosis of GI, based on the patient history and appearance of lesions, may be fairly accurate in endemic areas. A laboratory diagnosis requires that a punch biopsy specimen must be stained with Wright or Giemsa stain. Scrapings from the base of the ulcer or exudate aspirated from pseudobuboes can also be used for the analysis. One can observe the diagnostic Donovan bodies in the direct examination of these materials. They are seen as deeply staining, bipolar, safety pin-shaped rods in the cytoplasm of macrophages. Histologically, the skin exhibits a massive cellular reaction, predominantly polymorphonuclear, with occasional plasma cells and rarely lymphocytes. Donovan bodies are scattered through-

out the lesions (9).

As the patient did not report his history of rectal cancer and had travelled to African countries, we primarily focused on the diagnosis of GI. CG was not observed in the direct examination of the scrapings obtained from the base of the ulcerovegetative lesion. Therefore, a diagnosis of GI was eliminated. Patients with cutaneous metastasis of rectal carcinoma rarely attend dermatology clinics because of their cutaneous manifestations. Therefore, a high index of suspicion is recommended when unresolved skin lesions are encountered in cancer patients.

**The authors state that they have no Conflict of Interest (COI).**

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