

# Rare cutaneous metastasis from a probable basaloid carcinoma of the colon mimicking pyogenic granuloma \*

## Metástase cutânea rara de provável carcinoma basaloide de cólon simulando granuloma piogênico

Gustavo Costa Verardino <sup>1</sup>

Daniel Lago Obadia <sup>2</sup>

Maria de Fátima Guimarães Scotelaro Alves <sup>4</sup>

Roberto Souto da Silva <sup>2</sup>

Alexandre Carlos Gripp <sup>3</sup>

**Abstract:** Acrometastasis is a rare occurrence, especially when affecting the hands. It represents around 0.007-0.2% of all metastatic lesions. The most common site of origin is the lung, accounting for 40-50% of all cases reported in the literature. Kidneys and breasts are other sites also associated with neoplastic lesions that disseminate to the hands. More rarely, the site of origin may be the gastrointestinal tract or other systemic tumors or sarcomas. Early diagnosis is difficult, since the condition may be asymptomatic or may mimic tenosynovitis, arthritis, paronychia, pyogenic granuloma or a local infection. In the present paper, the authors report on a patient with the diagnosis of acrometastasis on both hands originating from a basaloid carcinoma of the anal canal. Response to radiotherapy was poor.

**Keywords:** Colonic neoplasms; Granuloma, pyogenic; Neoplasm metastasis

**Resumo:** As acrometástases, principalmente para as mãos, são incomuns e representam cerca de 0,007-0,2% de todas as lesões metastáticas. O pulmão é o sítio de origem mais comum, colaborando com 40-50% dos casos relatados na literatura. Os rins e mamas são outras localizações também relacionadas a neoplasias que metastatizam para as mãos, além de, mais raramente, trato gastrointestinal, outros tumores sistêmicos e sarcomas. Seu diagnóstico precoce é difícil, pois pode ser assintomático, se assemelhar a tenossinovite, artrite, paroníquia, granuloma piogênico ou infecção local. No presente relato, os autores apresentam paciente com diagnóstico de acrometástase, em ambos os quartos quirodáticos, oriunda de carcinoma basaloide de canal anal, com pobre resposta à radioterapia.

**Palavras-chave:** Granuloma piogênico; Metástase neoplásica; Neoplasias colorretais

### INTRODUCTION

Metastasis is defined as a neoplastic lesion developing from another previous neoplasm with which there is no continuity or close proximity. Although often undiagnosed, skin metastases are rare and may represent the first sign of internal neoplasia. They occur in up to 9% of all cancer patients. In a study conducted with 27 patients, Campbell showed that the primary tumors that most often metastasize to the skin are breast tumors in women and lung tumors

in men. <sup>1</sup> The metastatic lesion that most resembles a pyogenic granuloma is that originating from a renal carcinoma. Acrometastasis, principally to the hands, is rare, representing around 0.007 to 0.2% of all metastatic lesions. The lung is the most common site of origin, constituting 40-50% of all cases reported in the literature. <sup>2,9</sup> The kidneys and breasts are other sites that are also associated with neoplasia that metastasize to the hands, as well as the gastrointesti-

Approved by the Editorial Board and accepted for publication on 02.06.2010.

\* Study conducted at the Pedro Ernesto Teaching Hospital, State University of Rio de Janeiro, Rio de Janeiro, Brazil.

Conflict of interest: None / *Conflito de interesse: Nenhum*  
Financial funding: None / *Suporte financeiro: Nenhum*

<sup>1</sup> Physician currently undergoing postgraduate training in Dermatology at the Pedro Ernesto Teaching Hospital, State University of Rio de Janeiro, Rio de Janeiro, Brazil.

<sup>2</sup> Dermatologist. Substitute Professor, Pedro Ernesto Teaching Hospital, State University of Rio de Janeiro, Rio de Janeiro, Brazil.

<sup>3</sup> Master's Degree in Dermatology. Auxiliary Professor of Dermatology, Pedro Ernesto Teaching Hospital, State University of Rio de Janeiro, Rio de Janeiro, Brazil.

<sup>4</sup> PhD. in Dermatology. Adjunct Professor of Dermatology. Head of the Dermatopathology Division, Pedro Ernesto Teaching Hospital, State University of Rio de Janeiro, Rio de Janeiro, Brazil.

nal tract, other systemic tumors and sarcomas. Early diagnosis is difficult, since the disease may be asymptomatic or may mimic tenosynovitis, arthritis, paronychia, pyogenic granuloma or a local infection.<sup>5</sup>

### CASE REPORT

A 59-year old female patient reported edema, erythema and pain at the distal phalanx of the fourth finger of her left hand, which had been increasing progressively over the past three months. She had been referred by the oncology department where she was being followed up for lung metastases from a basaloid carcinoma of the anal canal, diagnosed and treated in 2006 with surgical resection and adjuvant chemotherapy and radiotherapy. She began chemotherapy following diagnosis of metastases in November 2009; however, this was suspended due to myelotoxicity. She reported that around the same time that she was diagnosed with metastases, she developed pain, edema and erythema in the distal phalanx of the fourth finger of her left hand, initially diagnosed as paronychia and later as pyogenic granuloma. Treatment was implemented with various topical medications such as corticosteroids and antibiotics, as well as oral antibiotics; however, her condition deteriorated progressively (Figures 1 and 2). Following a report from the dermatology department, skin metastases were suspected and a simple x-ray of the hands was requested, as well as a biopsy for histopathology. The x-ray revealed almost complete reabsorption of the distal phalanx of the affected finger and soft tissue edema (Figure 3). Histopathology showed a mass of atypical cells with basophilic cytoplasm invading the entire dermis (Figures 4 and 5). Immunohistochemistry was positive for AE1/3, CAM

5.2, CK7 and p63, all markers of metastatic carcinoma, and negative for CK20, chromogranin and synaptophysin.

Local radiotherapy was initiated, with a total of five sessions and 20-Gray irradiation; however, there was no response to treatment. Two weeks after the results of the biopsy, the patient presented with a new contralateral lesion on the fourth finger of her right hand. Morphology was similar to the first lesion and compatible with metastasis. Conservative management was adopted and the patient is being followed-up at the palliative care unit and at the dermatology department.

### DISCUSSION

Squamous cell carcinoma of the anal canal accounts for approximately 75% of all malignant tumors and generally occurs in the sixth or seventh decades of life. According to the World Health Organization classification, this type of malignancy can be divided into large-cell keratinizing, large-cell non-keratinizing and basaloid. The latter term was coined by Wittoesch, Woolner and Jackman (1957) to describe some tumors of the anal canal in which histopathology resembled that of a basal cell skin carcinoma. When it is located exceptionally deep in the rectum, this favors the occurrence of metastases, as seen in the present report. Immunohistochemistry may be useful for confirming the tissue origin of the tumor, which expresses CK20, CK7, CK34BE12 and p63.<sup>10,11</sup> The patient in question had the basaloid type, for which chemotherapy was contraindicated because of leukopenia, with lung metastases. She was being followed up in the palliative care outpatient department.



Figure 1: Lesions resembling pyogenic granuloma, situated in the distal phalanx of the fourth finger of the patient's left hand



Figure 2: Edematous, erythematous, purplish lesion with an irregular surface located at the distal phalanx of the fourth finger of the patient's left hand



FIGURE 3: Simple x-ray in anteroposterior and lateral positions. Edema of the soft tissues of the fourth finger of the left hand associated with bone reabsorption of almost all the distal phalanx

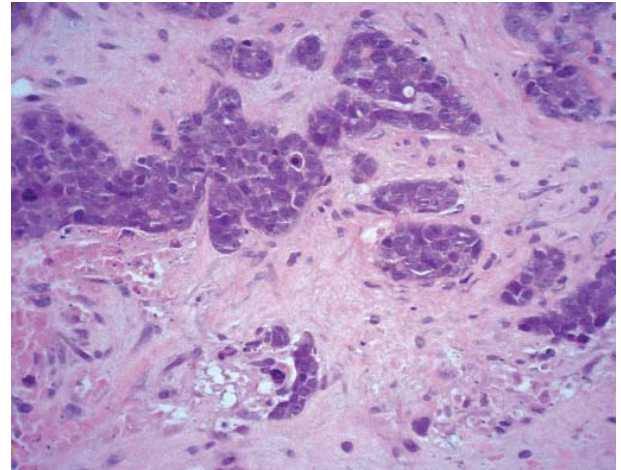


FIGURE 5: Hematoxylin-eosin (Magnification 10x). Masses of pleomorphic cells with nuclear hyperchromatism, sparse cytoplasm and some mitoses in dense fibrous stroma

Acrometastasis was first described by Handley in 1906 in a patient with breast cancer. Since then, few cases have been reported in which this same site was involved and, of these, the lungs were the original site of the malignancy in 50% of cases followed by the kidneys and breast. Origin in the intestinal tract is rare. Clinically, these lesions may mimic pyogenic granuloma, usually when they originate from a renal carcinoma; however, they may also mimic paronychia or even an infection. A simple x-ray usually shows lytic lesions; however, they may also be mixed.<sup>2,9</sup> When

affecting the fingers, the distal phalanx of the third finger appears to be the site most commonly affected for reasons that remain to be clarified.<sup>3,8</sup> In the present case, the patient had a lytic lesion, with bone absorption affecting almost the entire distal phalanx; however, the affected finger was the fourth rather than the third finger. In addition, there was a skin lesion, albeit without bone involvement, on the fourth finger of the contralateral hand.

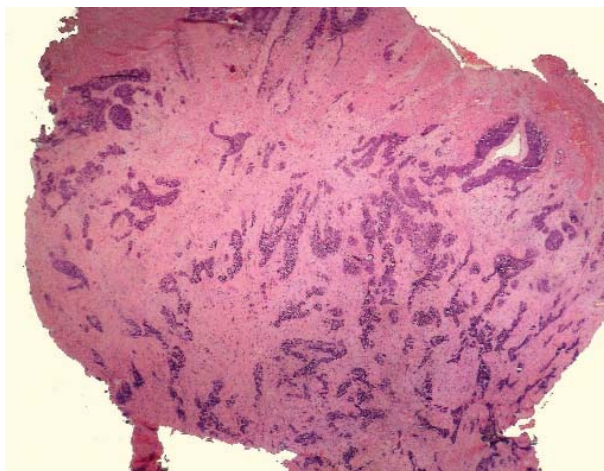


FIGURE 4: Hematoxylin-eosin (Magnification 4x). Dermis with masses and cords of cells immersed in dense stroma, occupying the entire extension

The standard treatment in cases of acrometastasis may be surgical, consisting of amputation of the affected segment, or with radiotherapy, remembering that the function of treatment is palliative, to help control pain and delay progression of the lesions. Radiotherapy is effective in many cases and when there is bone destruction may result in secondary local calcification that may preserve some of the functionality of the affected finger.<sup>3,6</sup> In the present case, it was decided to opt for radiotherapy, since it was believed that radiotherapy could control local progression of the tumor and preserve the functionality of the finger; however, results were unsatisfactory.

This paper emphasizes the importance of considering a suspicion of skin metastases when diagnosing lesions that affect the fingers or toes. Skin metastases may mimic pyogenic granuloma or chronic paronychia and diagnosis is often delayed by the time involved in making differential diagnoses. It should also be taken into consideration that prognosis is poor in the case of patients diagnosed with this particular type of metastases. □

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*MAILING ADDRESS / ENDEREÇO PARA CORRESPONDÊNCIA:*  
*Gustavo Costa Verardino*  
*Rua São Clemente, 262, apto 703, bloco 2 -*  
*Botafogo.*  
*CEP: 22260-000 Rio de Janeiro – RJ*  
*e-mail: gustavo\_verardino@botmail.com*

How to cite this article/*Como citar este artigo:* Verardino GC, Souto RS, Obadia DL, Gripp A, Alves MFGS. Metástase cutânea rara de provável carcinoma basalóide de cólon simulando granuloma piogênico. *An Bras Dermatol.* 2011;86(3):537-40.