



Cutaneous metastasis of bladder sarcoma: when should we consider this hypothesis? A review of the literature *

Metástase cutânea de sarcoma de bexiga: quando devemos considerar essa hipótese? Uma revisão bibliográfica

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Abstract: The incidence of cutaneous metastases is approximately 0.7 to 10%, while in metastases of urothelial origin the incidence is less than 1%. Transitional cell carcinoma is the most common of the genitourinary tract tumors. Sarcoma of the bladder is rare (0.3%). It can involve multiple clinical presentations, with a nodule being the most common. Diagnosis is made by a combination of medical history, clinical examination and histopathology. The treatment is surgical. The prognosis is very uncertain and depends on a multidisciplinary approach.

Keywords: Dermoscopy; Neoplasm metastasis; Sarcoma; Urinary bladder neoplasms

Resumo: A incidência de metástases cutâneas é de, aproximadamente, 0,7 a 10%. As de origem urotelial correspondem a menos de 1%. Dos tumores do trato genitourinário, o carcinoma de células transicionais é mais comum. O sarcoma de bexiga é raro, correspondendo a 0,3%. Podem ter múltiplas apresentações clínicas, sendo o nódulo mais comum. O diagnóstico é realizado pela anamnese, quadro clínico e histopatologia. O tratamento é cirúrgico. O prognóstico é muito reservado e depende de um acompanhamento multidisciplinar.

Palavras-chave: Dermoscopia; Metástase neoplásica; Neoplasias da bexiga urinária; Sarcoma

INTRODUCTION

The cutaneous metastasis of internal malignancies has a low incidence, representing around 0.7 to 10% of all metastases. Metastasis manifests primarily as subcutaneous nodules or ulcerative lesions.^{1,3} Other forms of presentation are: neoplastic alopecia, erysipeloid carcinoma, annular erythema-like lesions or zosteriform or herpetiform lesions, target-like lesions, pyoderma and morphea-like lesions. The neoplasm most commonly involved in the metastases is breast cancer in women, with 69% of cases and lung cancer in men (24 - 29%).^{4,5}

Less than 1% of skin metastases are of urothelial origin. These are very uncommon, sparsely reported in the literature, and indicate the spread of

the disease, with a poor prognosis. Early recognition of these lesions by the dermatologist is essential, with particular attention paid to the present and previous medical history of the patient.

CASE REPORT

Male patient, 61 years-old, white, married, a native of Rio de Janeiro, presented complaining of a "boil". Reported appearance 4 weeks previously of rapid-growth erythematous nodules of rapid growth in his right thigh and abdomen and said that pain below the knee made it difficult for him to walk.

The dermatological examination revealed an erythematous nodule of hard consistency, with telang-

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FIGURE 1: Clinical condition. Erythematous nodule of hard consistency, with telangiectasias on the anterior right thigh

telangiectasias on the right anterior thigh and lower abdomen (Figures 1 and 2). Dermoscopy showed whitish areas on the nodule, suggesting fibrosis, and a proliferation of irregular blood vessels throughout the lesion (Figures 3 and 4). No further physical changes detected.

Patient's previous medical history indicated a bladder sarcoma treated 1 year ago with surgical excision and local BCG therapy. Was under investigation for pericardial tumor.

Our diagnostic hypotheses were: xanthoma, histiocytoma, amelanotic melanoma, skin carcinoma and cutaneous metastases. A histopathological examination revealed diffuse infiltrate of atypical epithelioid cells with mitotic figures and areas of giant cells. Immunohistochemistry revealed positivity for



FIGURE 2: Clinical condition. Erythematous nodule with an area of induration in the right thigh

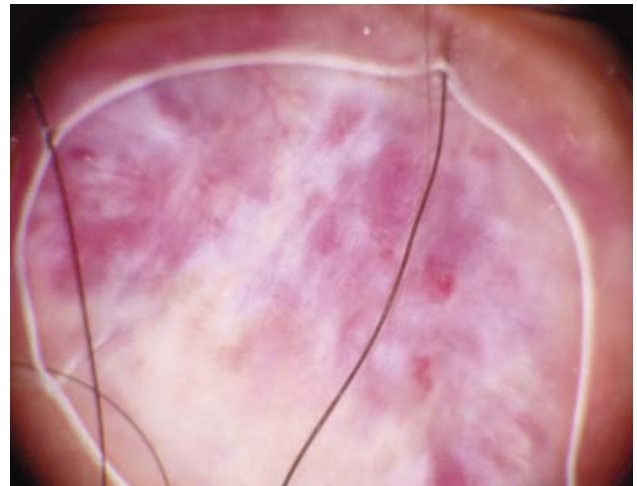


FIGURE 3: Dermoscopy. Whitish areas suggesting fibrosis and proliferation of irregular blood vessels

anti-vimentin antibody, factor XIIIa, alpha-1 anti-trypsin, CD68 and Ki-67. Negative for S100 protein, smooth muscle actin, desmin, CD34 and cytokeratin cocktail. The diagnosis concluded undifferentiated pleomorphic sarcoma of the same histological type as the bladder tumor.

The patient underwent surgical resection and histopathology confirmed the diagnosis of cutaneous metastasis of bladder sarcoma. Patient died under 2 months later.

DISCUSSION

Tumors of the genitourinary tract (GUT), represent less than 1% of all cutaneous metastases. Of these tumors of the transitional cells are the most common.

The sarcomas comprise a heterogeneous

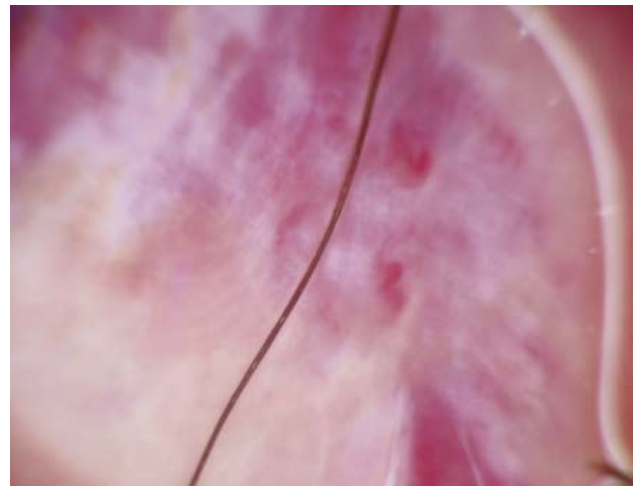


FIGURE 4: Dermoscopy. Whitish areas suggesting fibrosis and proliferation of blood vessels, irregular at the periphery, indicating angiogenesis

group of malignancies derived from the mesoderm⁶, with multiple classifications - osteosarcoma, chondrosarcoma, soft tissue sarcomas etc - depending on their site of origin. Soft tissue sarcomas are classified according to their histopathological characteristics of as liposarcoma, leiomyosarcoma, rhabdomyosarcoma, dermatofibrosarcoma, angiosarcoma, fibrosarcoma, hemangiosarcoma, Kaposi's sarcoma, lymphosarcoma, lymphangiosarcoma, neurofibrosarcoma, etc, with leiomyosarcoma (LMS) the most common.

GUT tumors account for less than 5% of all sarcomas. Genitourinary sarcoma is rare, with around only 1 to 2% of all cancers of the GUT, and bladder sarcoma amounts to 0.3%.^{6,7} The rarity of GUT sarcomas presents the greatest obstacle to learning about the clinical evolution of this type of tumor. The literature contains only limited data.

The spread of skin metastases may occur via the blood or the lymphatics.⁸ About 20% of patients are already compromised at the time of diagnosis.^{9,10} The most frequent sites of origin of genitourinary metastases are the inguinal and/or umbilical regions due to their anatomy. Factors such as histological type, level of differentiation and surgical margins determine metastatic spread and morbidity/mortality.¹¹

The lesion presented by the patient, given its fairly unspecific characteristics, can be diagnosed principally as falling within the category of inflammatory or neoplastic diseases such as boils, subcutaneous mycoses or carcinomas. The dermoscopic find-

ings (irregular telangiectasia on the edges of the lesion suggesting angiogenesis and its amorphous whitish area), point to neoplasia. A combination of clinical examination, the patient's previous history of bladder sarcoma, location of the lesion and dermatoscopic findings further increases the suspicion of neoplasia and thus contributes to early diagnosis.

If metastasis is suspected, thorough clinical screening is recommended. The patient's medical history is a crucial first step. Routine tests need to be requested, and histopathology of the skin lesion may contribute to clarifying the origin of the tumor. In the case reported above, the presence of atypical cells and mitotic figures increased our suspicions, highlighting the need for directed immunohistochemistry in order to definitively confirm our diagnosis.

Metastases are early signs of the spread of neoplastic disease. They reduce the rate of survival, and in cases of tumors of the GUT survival is less than three months after the onset of the skin lesions.² It follows that that a patient's medical history must be thoroughly investigated for diagnosing this and other dermatoses. Early diagnosis is crucial. Physicians have great difficulty to diagnose the disease owing to ignorance of a patient's clinical history and the rapid and poorly-directed anamnesis generally undertaken, which causes the disease to be either underdiagnosed, or diagnosed too late. The dermatologist must suspect the relevant signs, pay careful attention to the patient's clinical history and direct investigative efforts towards a conclusive diagnosis. □

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