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

Márcia Lopes¹
Airá Novello Vilar²

Carlos Baptista Barcaui²

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

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. 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%).

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-
Malignant cutaneous lesions may represent a challenge for the dermatologist due to their variable clinical presentation and the difficulty in reaching a correct diagnosis. Cutaneous metastasis of bladder sarcoma: when should we consider this hypothesis? A review of the literature

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 group of tumors derived from the mesenchyme, the embryonic precursor of connective tissue. They are classified according to their histological appearance and biological behavior. The most common are the undifferentiated pleomorphic sarcoma (UPS), which is characterized by a high degree of nuclear pleomorphism, mitotic activity, and often, the presence of giant cells. These tumors can present as a solitary lesion or multiple lesions, and are often associated with a poor prognosis. The diagnosis of cutaneous metastasis of bladder sarcoma is challenging, as the patient's medical history and physical examination may not provide sufficient information to make a definitive diagnosis. Immunohistochemistry can be helpful in identifying the presence of specific markers, such as vimentin, factor XIIIa, CD68, and Ki-67, which are commonly expressed in sarcomas. The presence of these markers, along with the absence of markers specific to epithelial tumors, such as S100 protein, smooth muscle actin, desmin, and cytokeratin, can support the diagnosis of cutaneous metastasis of bladder sarcoma. The diagnosis of cutaneous metastasis of bladder sarcoma is often made by a combination of histopathological examination and immunohistochemistry.
group of malignancies derived from the mesoderm, 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 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 findings (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 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.

REFERENCES


MAILING ADDRESS / ENDEREEÇO PARA CORRESPONDÊNCIA:
Márcia Lopes
Rua Santa Luzia, 126 – Centro.
CEP: 20020-020, Rio de Janeiro - RJ, Brazil
E-mail: marcinha_ralopes@yahoo.com.br

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