



(CASE REPORT)



## Cutaneous metastases of urothelial origin: early diagnosis to improve prognosis Case report

R Ouaddane Alami \*, Z Ba, N Alaoui Mhammedi, M Ahsaini, S Mellas, J El Ammari, MF Tazi, MJ El Fassi and MH Farih

*Department of urology, Hassan II University Hospital, University Sidi Mohammed Ben Abdellah, Fez, Morocco.*

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### Abstract

Superficial bladder tumors are classified as non-invasive, and are limited to the superficial layer without invading the bladder muscle. However, even if the tumor is considered non-invasive, it is possible for it to spread to other parts of the body, such as the skin. Skin metastases may appear as nodules or plaques on the skin and may sometimes be accompanied by symptoms such as itching, pain or inflammation.

Treatment for skin metastases depends on a variety of factors, such as the size and location of the metastasis, as well as the presence of other metastases in the body. Treatment options may include surgery, radiation therapy, chemotherapy or a combination of these treatments.

**Keywords:** Skin metastasis; Urothelium; Bladder tumor; Medical research

### 1. Introduction

Skin metastases of superficial urothelial tumor are extremely rare, and result from the spread of cancer cells from the bladder or upper urinary tract (such as the kidneys and ureters) to the skin.

These skin metastases usually occur as a result of dissemination of a solid lung or liver tumor, but may also occur as a result of superficial urothelial cancer that has spread beyond the urinary tract. Skin metastases may present as nodules or plaques on the skin, usually on the trunk or extremities [1].

Treatment will depend on the severity and extent of the skin metastases, as well as the patient's overall health.

We report the case of a patient who had undergone an old right nephroureterectomy, and who presented during the follow-up of his superficial bladder tumor a single cutaneous metastasis which benefited from a surgical removal confirming the urothelial nature.

### 2. Case report

A 72 years old male patient with history of chronic smoking of 40 pack-years, weaned 15 years ago, a tumor of the esophagus in complete remission, dyslipidemia, and hypertension. Treated in 2003 for macroscopic hematuria associated with right lumbago. The thoracic-abdominal-pelvic CT scan showed a tumor of the right upper excretory tract located at the pyloric level, measuring 40x20mm, no metastasis was found.

\* Corresponding author: R Ouaddane Alami

The patient had undergone a right nephroureterectomy by laparoscopic robot-assisted approach, with the anatomopathology examination revealed a pTa urothelial carcinoma of grade II.

The evolution after 05y without recurrence, was marked by the occurrence of a 02cm uni-focal bladder tumor, located on the right lateral surface. The transurethral resection of the bladder has showed a pTa G2 urothelial carcinoma.

After several years of monitoring, the patient consults for the appearance of a hypogastric skin induration, whose clinical examination reveals a painless mass, adherent to the deep plane, reaching the contact of the pubis.

The thoracic-abdominal-pelvic CT scan has showed a heterogeneous mass measuring 04cm well limited, reaching the contact of the pubis and the base of the penis, the PET scan did not objectify any hypermetabolism.

A surgical excision was performed removing the entire mass, with macroscopically negative margins (Fig 1), with parietal reconstruction and placement of a patch. The anatomopathology examination has confirmed the urothelial nature. The patient was doing well without recurrence at 6 months.



**Figure 1** Macroscopic image of the operator piece

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### 3. Discussion

Skin metastases of urothelial carcinomas of the bladder are extremely rare [1]. Indeed, the skin is a relatively uncommon site of metastatic dissemination of deep cancers [2]. The skin occupies only the 12th place among the metastatic sites [3]. Cutaneous metastases are directly related to the degree of tumor infiltration, size and grade [1,4]. Nevertheless, they can be secondary to primary superficial and invasive tumors [4,5].

Metastases usually occur within months or years after the discovery of a primary tumor [6]. According to the literature, they appear after 18 months [7]. Generally, advanced bladder tumors have a metastatic dissemination mainly to lymph nodes, bones, liver or lungs [8].

Tumor cells can reach the skin by different routes: hematogenous, lymphatic, by contiguity, or by iatrogenic manipulation. The latter mechanism is most frequently responsible for skin metastases [9,10,11]. In the case of distant primary lesions, the SM are blood-borne and are most often associated with hepatic or pulmonary localizations, at least microscopic, at the origin of the very poor prognosis [12], contrary to our patient where the PET scan did not show any other metastasis.

The treatment of skin metastases of urothelial origin is similar to that of other metastatic forms of bladder malignancy. Palliative chemotherapy remains the only treatment option for patients who can tolerate it. The goal of treatment in these cases is to delay the progression of the tumor disease while maintaining a good quality of life [13].

Cutaneous metastases when they are single and accessible can be treated surgically, as was the case for our patient, for multiple lesions grouped on a territory and not responding to chemotherapy, they can benefit from a radiotherapy. however the prognosis remains very poor [14].

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#### 4. Conclusion

Cutaneous metastases of urothelial origin are exceptional and rarely reveal tumor recurrence. They are most often evidence of an unfavorable evolution of a malignant bladder neoplasia. However, it seems that the skin lesion has no prognostic value in itself, but could be considered as an epiphenomenon determining the stage of the disease and conditioning the prognosis.

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#### Compliance with ethical standards

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##### *Disclosure of conflict of interest*

No conflict of interest.

##### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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