Case Report

Scrotal Skin Metastases Revealing a Prostatic Adenocarcinoma

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Introduction. Prostate cancer is the most common cancer in men. Cutaneous metastasis from prostate cancer is an unusual clinical finding. Scrotal skin metastases revealing prostate adenocarcinoma is even rarer. Case Report. We report the case of a 78-year-old patient, who initially consulted for nonspecific scrotal skin lesions evolving for 4 months. Patient’s past history revealed urinary disorders. Physical examination and PSA levels led to perform a prostate biopsy, and the diagnosis of prostate adenocarcinoma was made. Bone scintigraphy showed that the cancer has spread to the bones. Imaging studies showed that the cutaneous lesions were limited to the scrotal wall. Cutaneous metastasis was suspected and was proven on skin biopsy. The patient received second-generation hormone therapy with good clinical and biological outcomes. Discussion. Based on literature review of nearly 2,500 skin metastases, we found that only 436 were spreading from the genitourinary tract. Skin metastasis from prostate adenocarcinoma is a rare entity with a low incidence rate (0.36%). Conclusion. Skin metastases, and especially in the scrotum, are exceptional in prostate cancer. However, in any patient with a prostate adenocarcinoma, nonspecific cutaneous lesions should lead to perform skin biopsy in order to identify and initiate treatment of cutaneous metastases.

1. Introduction

According “Cancer Statistics” from 2019 [1], around 174,650 new cases of prostate adenocarcinoma have been reported in men (20%), with very variable mortality rates [2]. In 2018, the highest death rates were recorded in Central America (10.7 per 100,000 inhabitants), followed by Australia and New Zealand (10.2) and Western Europe (10.1) [2]. The 5-year relative survival rate for localized and regional prostate adenocarcinomas is 100%, compared to 30.5% for metastatic ones [3].

The most common metastatic sites are the pelvic lymph nodes, bones, and lungs. Other abdominal and thoracic sites are very rarely reported [4].

Skin metastases are a rare entity with a recorded frequency of 0.7 to 9% of all metastatic malignancies [5].

Despite the fact that prostate cancer is the most common cancer in men, it is exceptionally presented with skin metastases with a published incidence rate of 0.36% [6].

We illustrate through this case report of a rare occurrence of scrotal metastasis revealing prostate adenocarcinoma.

To our knowledge, this is the first observation of scrotal metastases from a prostate adenocarcinoma published in the literature.

2. Case Report

A 78-year-old man, with no notable medical history, consults for painless scrotal lesions evolving for 4 months, without any other signs.
The patient reported lower urinary tract symptoms that started 8 months ago, associated to rapidly progressive bones pain, especially in the pelvis, a 10 kg weight loss in 2 months, and deterioration of general condition. Physical examination showed soft, mobile, subcutaneous nodules, and erythematous papules of different sizes (0.5 to 1.5 cm in diameter) in the scrotum (Figure 1).

Abnormal digital rectal examination of the prostate with high PSA levels (321 ng/mL) led to perform a prostate biopsy and the diagnosis of prostate adenocarcinoma was made with a Gleason score of 10 (5+5) with perineural invasion. Bone scintigraphy revealed bone metastases, which were also identified on the MRI, a lumbar epiduritis was also noted (Figures 2 and 3). Chest and abdominopelvic CT-scan showed no other metastases. At this point of the investigation, scrotal skin metastasis was suspected. The skin biopsy revealed carcinoma cells proliferation organized in a thin stroma. The cells had an abundant cytoplasm with a monomorphic nucleus, some with a nucleolus. This description was compatible with a metastatic scrotal location of a prostate adenocarcinoma. PSA immunohistochemistry (IHC) was positive which confirms the prostatic origin (Figures 4 and 5).

Radiotherapy was urgently performed to treat spinal cord compression. Androgen suppression therapy has been indicated combining an LH-RH analog with second-generation hormone therapy. Abiraterone acetate was used given the high metastatic volume of the cancer. After 3 months, PSA levels dropped to 45 ng/mL.
Skin metastases in prostate cancer are exceptional. The incidence prostate adenocarcinoma with skin metastases is 0.36% of all skin metastases of genitourinary origin.
Of those, a scrotal localization is even more exceptional. However, in any patient with a prostate adenocarcinoma, nonspecific cutaneous lesions should lead to perform skin biopsy in order to identify and initiate treatment of cutaneous metastases. Given their rarity in the literature, their management has not yet been codified.

**Data Availability**

Citations should appear in the body of the article with a corresponding reference in the reference list.

**Conflicts of Interest**

All authors declare that they have no conflict of interest.
References


