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Penile Cancer Metastases to the Groin

Yong He[1], Alexey Markelov[2], Mustafa Amani[2]

[1]Drexel University
College of Medicine
Philadelphia, PA, USA

[2]Department of Surgery
Easton Hospital
Easton, PA, USA

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Corresponding author:
Yong He
1100 Vine St Unit 815
Philadelphia, PA 19107, USA
yonghe@gmail.com

Abstract

Penile cancer is a relatively uncommon cancer in the United States, spreading locally and through lymphatic channels. Metastatic disease is rare but has been reported in the liver, lungs, bone, brain, heart, and skin. Here we report a case of penile squamous cell carcinoma that had metastasized to the groin and presented as a chronic non-healing wound.

Key words: *Penile cancer metastases, groin metastases, penile carcinoma, ulcerated groin wound*

Introduction

Penile cancer is a relatively uncommon cancer in the United States, accounting for 0.3 to 0.6% of all cancers in men [1]. It is almost always histologically squamous cell carcinoma (SCC) and may either present as an enlarging exophytic mass or as a flat area of induration that erodes as it infiltrates deeper tissue. Metastatic disease is rare and primarily involves vascular dissemination to the lung and liver, although there have been anecdotal reports of spread to the brain, heart, skeleton, and skin [2-5]. Here we describe a case of penile SCC that metastasized to the groin, resulting in a refractory wound.

Case Report

An 80-year-old male who had received a distal penectomy for penile cancer over 30 years ago presented with two episodes of right groin cellulitis. Despite antibiotic therapy, the patient eventually required drainage and washout for fluid collection. Postoperatively, the groin wound failed to heal despite vacuum-assisted therapy. Over the next two months, he experienced increasing pain at the wound site and also developed pitting edema of the right posterior thigh, significant swelling of the scrotum, and hematuria. On return to the hospital, the wound appeared erythematous and drained foul-smelling serous fluid (Figure 1). Of

concern, there were several firm ulcerated penduncular lesions along the anterior and lateral thigh that were not previously present. Given this patient's history of penile cancer, we became suspicious of metastatic disease in the groin. Biopsies of the wound and the satellite lesions revealed a poorly differentiated squamous cell carcinoma (Figure 2). Given the advanced presentation of the malignancy and the patient's concurrent comorbidities, the patient and his family deferred treatment and requested comfort care.

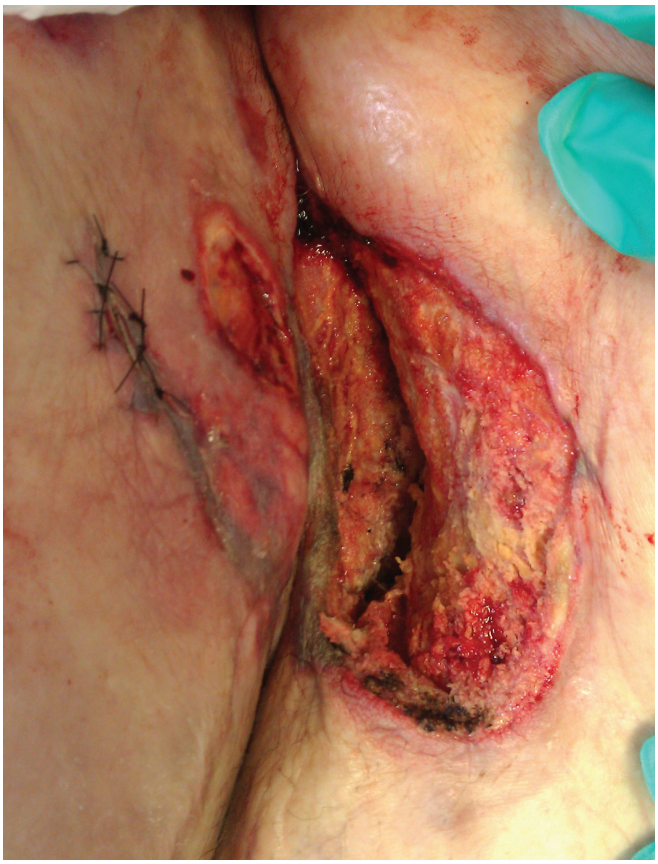

Figure 1. Ulcerated groin wound.

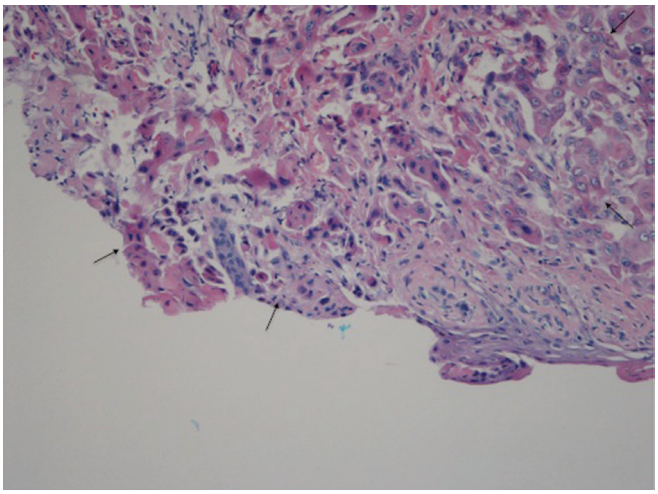

Figure 2. The right thigh lesion showed ulcerated squamous cell carcinoma focally at the deep lateral margin with some connection to the epidermis. The vast majority of the carcinoma is in the reticular dermis and subcutaneous tissue, suggesting metastatic origin rather than primary extension.

Discussion

Penile SCC often originates in the glans, prepuce, coronal sulcus or penile shaft. It invades locally by horizontal spread into adjacent epithelium and vertical spread into different penile anatomic structures [6]. Dissemination is primarily through the lymphatics, although distant metastases of hematogenous spread have been reported [6,7].

There has only been one other case of ulcerated groin metastases from penile SCC described in the literature. Harish and Madhu in 2011 reported a case of a 35-year-old male with ulcerated lesions in the groin bilaterally in the suprapubic area [8].

In our patient, despite a distal penectomy after he was first diagnosed with penile carcinoma, occult seeding of the inguinal nodes resulted in tumor recurrence. The tumor proliferated within the superficial and deep inguinal nodes and invaded local soft tissues, leading to local subcutaneous and cutaneous metastases. In addition, extension into the iliac vessels and ureter was observed on a CT scan (Figure 3). In its terminal stages, penile SCC has a propensity for femoral vessel blowout, leading to death through exsanguination [9].

There is a lack of good treatment options for advanced penile cancer, which is normally treated with multimodal therapy. However, given the extent of soft

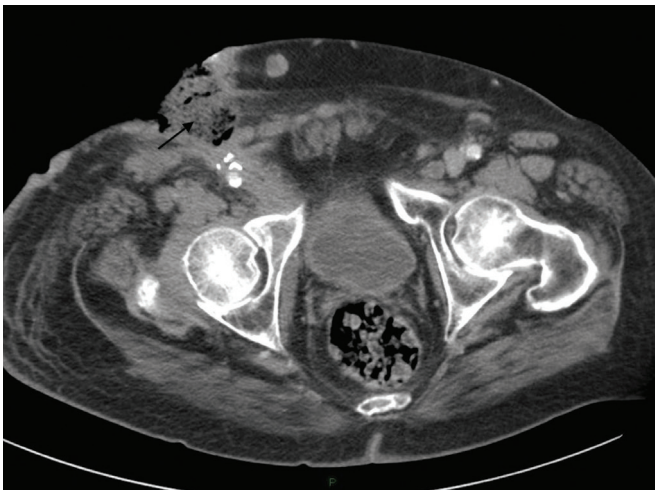

Figure 3. CT scan of the abdomen and pelvis revealed an inflammatory or soft tissue abnormality that extended down from the open wound in the right groin into the right proximal thigh. There is extension of this soft tissue material along the right common and external iliac vessels.

tissue invasion and proximity of the tumor to the femoral vessels, our patient did not qualify for surgery. Radiation and chemotherapy are also frequently ineffective in this population and are associated with significant toxicity. In the literature, neoadjuvant chemotherapy and adjuvant chemotherapy have been reported to be potentially beneficial in uncontrolled studies [10,11], but high-quality randomized trials will be needed to support this conclusion.

This case is unique in that it illustrates a recurrence of penile SCC presenting as a chronic groin wound. As penile SCC is a disease that carries significant mortality and morbidity in its advanced stages, it is important to aggressively work up groin lesions in patients with a history of penile SCC.

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Conflict of interest statement

The authors have no conflicts of interest to declare.

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