**Case Report**

**Metastatic prostate cancer masquerading as lymphangioma circumscriptum**

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**Key words:**cutaneous metastasis; lymphangioma; microcystic lymphatic malformation; prostate adenocarcinoma.

**INTRODUCTION**

Cutaneous metastases from visceral malignancies occur in 0.7% to 9% of patients with cancer. However, prostate cancer is one of the least likely malignancies to result in cutaneous metastasis. Cutaneous metastasis occurs in less than 0.1% of patients with prostate cancer. Prostatic cutaneous metastases most often present as multiple papules or nodules in the inguinal region.

Here, we report a case of cutaneous metastases of prostate adenocarcinoma mimicking lymphangioma circumscriptum.

**CASE REPORT**

A 71-year-old man presented with a 2-month history of a localized, asymptomatic rash involving the bilateral inguinal region. The patient had a past medical history significant for long-standing untreated bilateral inguinal hernias and castration-resistant stage IV prostatic adenocarcinoma with known metastases to the bone, lymph nodes, and liver. He had recently completed a 4-month course of chemotherapy with docetaxel and was on cabazitaxel therapy at the time of presentation. He had previously failed a 2-week trial of topical nystatin cream to the area, as prescribed by his genitourinary oncologist.

Physical examination revealed grouped 3- to 8-mm translucent pink papules and nodules with papillomatous projections on a background of well-defined purpura involving the left inguinal crease and scrotum, the largest measuring 1.1 cm in diameter (Fig 1). Significant left-sided scrotal edema and erythema were also noted. Based on the clinical findings, in the setting of his inguinal hernia, a diagnosis of cutaneous lymphangieectasia or microcystic lymphangioma circumscriptum was suspected. Scallop biopsy was performed, with...
hematoxylin-eosin–stained sections revealing sheets of nested malignant epithelioid cells in the dermis (Fig 2, A). The cells had vesicular nuclei and cytoplasmic clearing with focal epidermotropic involvement (Fig 2, B). Immunohistochemical stains showed that the lesional cells strongly expressed NKX.3.1, prostate-specific antigen (A1 and A2), and CAM5.2, consistent with a diagnosis of metastatic prostatic adenocarcinoma (Fig 2, C). At a 10-day follow-up with his oncology team, the patient’s rash was rephotographed with marked coalescence and flattening of the exophytic lesions on both inguinal folds (Fig 3, A and B).

**DISCUSSION**

Prostatic adenocarcinoma is the most common noncutaneous malignancy in men and is the second leading cause of cancer-related deaths in men in the United States.4 Cutaneous metastasis is rare, occurring in only 0.03% to 0.6% of the cases, and is associated with advanced-stage disease and worse prognosis.2 This presents as multiple nodules or papules and most commonly affects the penis or inguinal region.3,5 Cases resembling a zosteriform rash, cellulitis, angiosarcoma, mammary Paget disease, basal cell carcinoma, sebaceous cyst, trichoe-pithelioma, pyoderma gangrenosum, and morphea are described in the literature.2,6 Due to the rarity and diversity of clinical manifestations of cutaneous metastatic prostate cancer, histopathologic analysis with immunohistochemical staining is important in confirming the diagnosis.

Lymphangioma circumscriptum, or microcystic lymphatic malformation, is an uncommon and benign condition that may be congenital or, less commonly, acquired. Acquired lymphangioma circumscriptum occurs secondary to dilation of previously normal lymphatic channels that have become
obstructed by external causes, including hernias, tumors, prior lymphatic infections, radiation, or surgery. Diagnosis is usually recognized clinically, with lesions appearing as a cluster of small, cutaneous, translucent vesicles that resemble frogspawn and are otherwise asymptomatic.\textsuperscript{7,9} We present a case of cutaneous metastatic prostatic adenocarcinoma masquerading as lymphangioma circumscriptum to bring awareness to this unique presentation and highlight the importance of performing a biopsy of new skin findings in patients with known carcinomas.

Conflicts of interest
None disclosed.

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