



Penile Metastasis as the First Manifestation of Sarcomatoid Renal Cell Carcinoma

Sarkomatoid Renal Hücreli Karsinomun İlk Bulgusu Olarak Ortaya Çıkan Penil Metastaz

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Introduction

A 51-year-old male patient without any history of a systemic disease was admitted to the urology department with the complaints of terminal hematuria and a penile mass. Physical examination confirmed the presence of a mass in the penile shaft and the patient was referred for magnetic resonance imaging (MRI) examination. On abdominal MRI, a 70-mm sized, well-circumscribed, heterogeneous, enhancing mass lesion was detected in the interpolar region of the right kidney and interpreted as renal cell carcinoma (RCC) (Figure 1). MRI also revealed a mass lesion infiltrating a long segment of the corpus spongiosum in the penile shaft and a few millimeters sized similar mass lesions in the corpus cavernosum (Figure 2). The

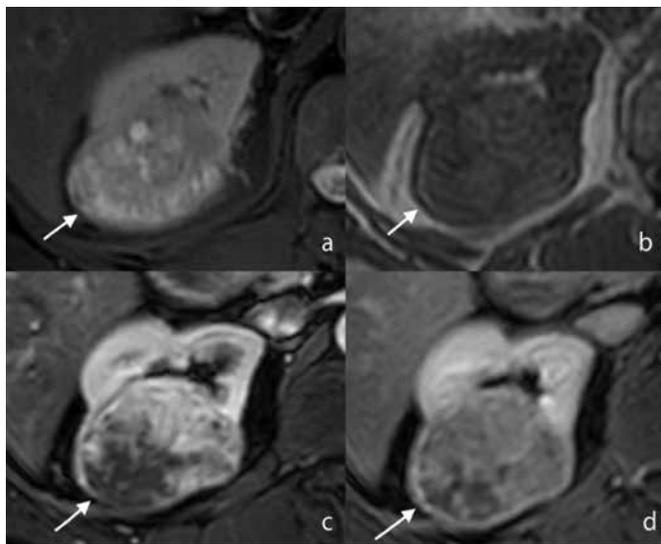


Figure 1. On axial magnetic resonance images, a 70-mm sized, well-circumscribed, heterogenous mass lesion is seen in the interpolar region of the right kidney (arrows). The mass was slightly hyperintense on both T2-weighted (a) and T1-weighted image (b). The mass avidly enhanced on nephrographic phase contrast-enhanced image (c) and washed out on delayed phase image (d)

patient underwent radical nephrectomy for the renal mass and excisional biopsy was performed from the corpus cavernosum. The histopathological diagnosis was consistent with Fuhrman grade IV RCC showing sarcomatoid features and penile metastasis. The patient was referred to the medical oncology department for sunitinib treatment.

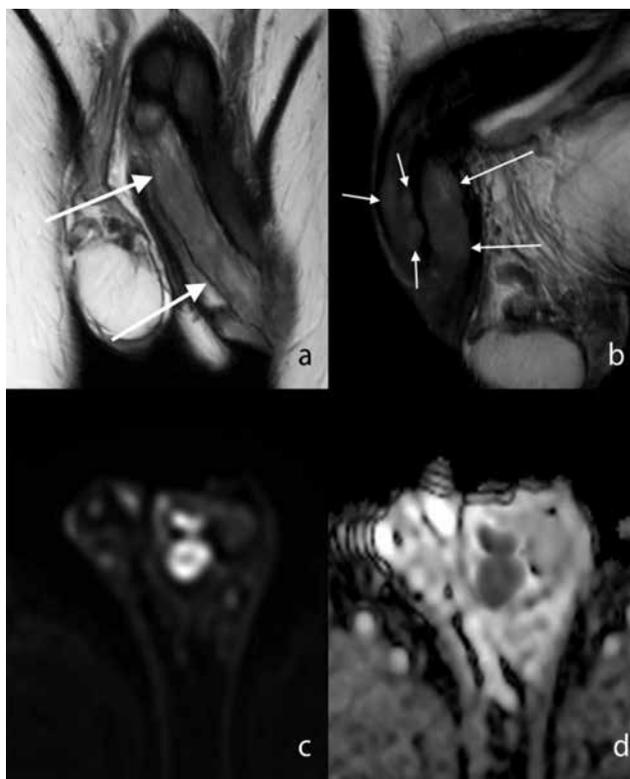


Figure 2. Coronal (a) and sagittal (b) T2-weighted images revealed a mass infiltrating a long segment of corpus spongiosum in the penile shaft and a few millimeter sized similar mass lesions in the corpus cavernosum (arrows). Lesions were hyperintense on diffusion weighted image (a) and hypointense on apparent diffusion coefficient map (b) consistent with restricted diffusion

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Secondary penile cancers are extremely rare and usually originate from primary pelvic malignancies with bladder cancer being the most common primary followed by prostate and rectosigmoid cancer in 69% of all cases. RCC constitutes 6.9% of all cancers causing penile metastasis and, to date, less than 50 cases of penile metastasis originating from RCC has been defined in the literature (1). To our knowledge, our case is the third case of penile metastasis originating from RCC with sarcomatoid features (2,3) which is a very aggressive type. The most common manifestation of penile metastases is malignant priapism which is seen in about 40% of cases. The other manifestations are indurated nodules and masses, skin lesions, perineal pain, dysuria, and hematuria (4). Penile nodules involve both corpora cavernosa in about 70% of patients which explains the increased frequency of priapism. Corpus spongiosum and the glans penis are less frequently involved (1). Penile metastasis is associated with advanced disease and, therefore, has a poor prognosis with a short life expectancy (5). Various treatment modalities, such as radiotherapy, systemic chemotherapy, local excision or total penectomy could be preferred according to the clinical status of the patient but has no proven survival benefit (4,5). Penectomy has shown to be beneficial as a palliative treatment in cases with intractable pain. Imaging modalities, such as ultrasonography, computed tomography, and MRI are helpful in the diagnosis and determining the extent of the disease. However, differentiating from a primary neoplasm and making a definitive diagnosis is only possible by excisional biopsy or fine needle aspiration and histopathological analysis (1). In conclusion, penile metastasis is very rare. It is associated with advanced disease and a poor prognosis. Imaging is helpful in diagnosing the primary disease and showing the extent of penile involvement.

Keywords

Penile metastasis, renal cell carcinoma, sarcomatoid

Anahtar Kelimeler

Penil metastaz, renal hücreli karsinom, sarkomatoid

Ethics

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Authorship Contributions

Concept: İlkey Çamlıdağ, Murat Danacı, Mehmet Selim Nural, Design: İlkey Çamlıdağ, Murat Danacı, Data Collection or Processing: İlkey Çamlıdağ, Analysis or Interpretation: İlkey Çamlıdağ, Literature Research: İlkey Çamlıdağ, Mehmet Selim Nural, Writing: İlkey Çamlıdağ.

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