

Rare Metastasis of Endometrial Cancer Primarily Diagnosed in the Talus

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Introduction

Metastatic cancer to the foot and ankle constitutes 20-30% of patients diagnosed with a malignancy with skeletal metastases.³ Due to the rare incidence, when a patient is diagnosed with metastasis in the foot, it indicates an advanced disease state. When the primary cancer is not native to the lower extremity, it is unusual for a patient to receive an oncologic diagnosis via biopsy of a peripheral lesion by a foot and ankle surgeon. It is essential for a foot and ankle specialist to understand and recognize the characteristics of a malignant lesion and when to utilize advanced imaging with biopsy so treatment is not delayed.

Presentation

A 66 year old female with a medical history of hypertension, controlled diabetes mellitus type 2, and hyperlipidemia was referred to a private practice foot and ankle surgeon for continued left ankle pain. The pain had been present for months and she was previously treated by her primary care doctor with an ACE wrap, removable cast boot, and prednisone with minor relief of pain.



Figure: 1a

Figure: 1b

Figure: 1c

Case Report

At the initial podiatry visit, the presenting symptoms consisted of significant pain and swelling in her lateral hindfoot persisting for several months duration but progressively worsening over the course of two weeks.

Physical examination revealed swelling consistent with venous stasis, pain with subtalar joint range of motion and tenderness to palpation of the sinus tarsi. Radiographs were obtained (Figure 1a-1c) and showed significant lateral ankle gutter narrowing and osteophytes across the talonavicular joint. In-office ultrasound was also performed which revealed inflammatory changes and calcification in the sinus tarsi and anterolateral aspect of the posterior facet of the lateral ankle. A sinus tarsi cortisone injection was administered without any relief of symptoms.

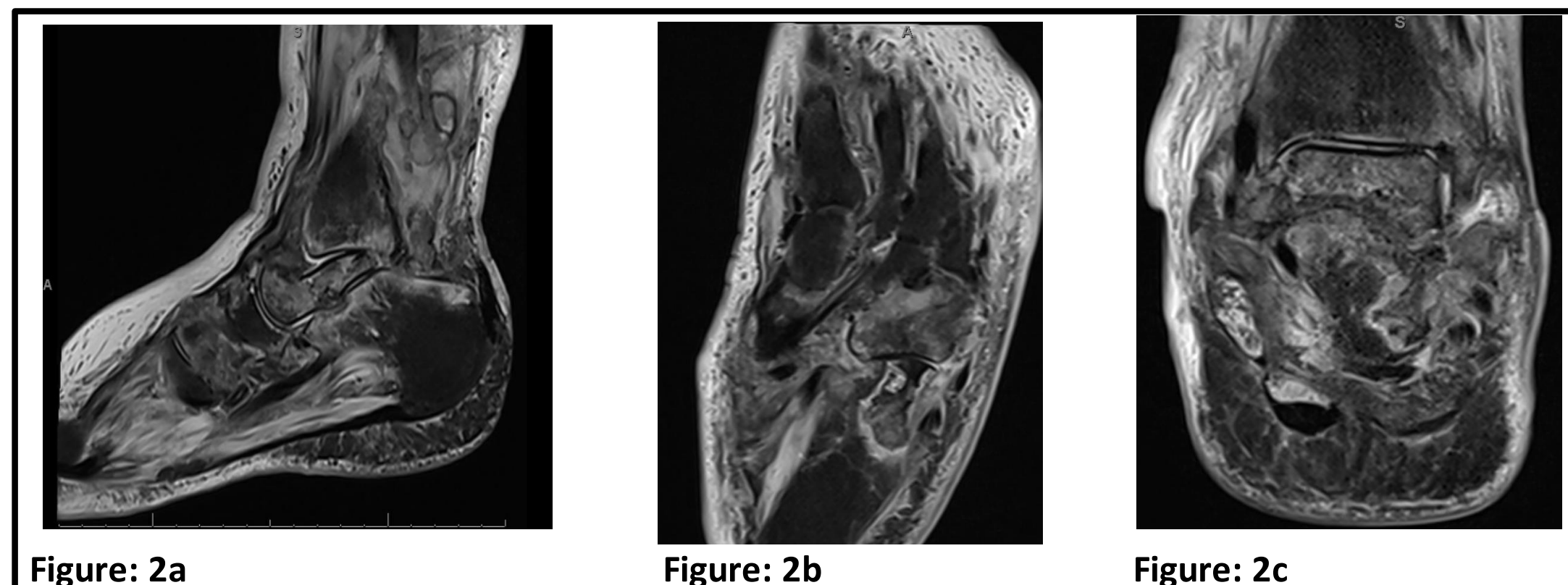


Figure: 2a

Figure: 2b

Figure: 2c

An MRI of the left ankle was obtained demonstrating a soft tissue mass at the lateral aspect of the talus which measured 3.2 x 3.1 cm and with extensive abnormal signal throughout the talus. Radiology report suggested a metastatic lesion of sarcoma was the most likely diagnosis.

Two weeks thereafter she was brought to the OR for surgical excision of the lesion with synovectomy of the sinus tarsi of the left foot. Intraoperatively, the mass was found to be eroding the lateral aspect of the talar neck and body, anterior to the articular surface. The mass was lobulated, irregular, ragged, and non-encapsulated. The specimen was sent to pathology and the pathological findings were significant for malignant epithelial cells infiltrating between bone fragments with frequent mitoses, concerning for metastatic carcinoma with a gynecologic primary origin, such as endometrial carcinoma.

Outcome

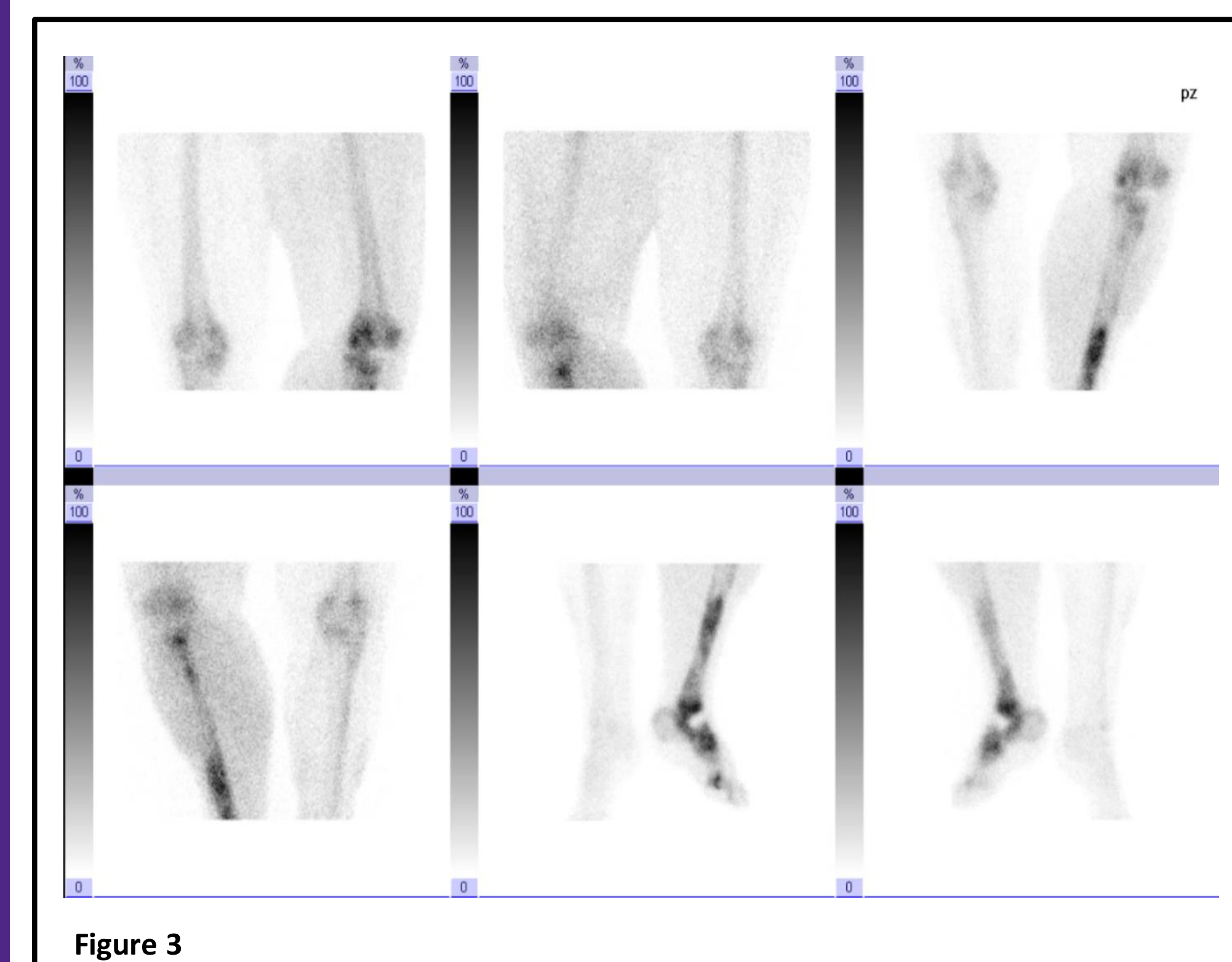


Figure 3

Weeks after the initial diagnosis, she underwent a CT scan and PET scan with diagnosis of an endometrial mass with marked uptake in the endometrium. Subsequently, she underwent a total hysterectomy with chemoradiation therapy.

Approximately 8 months later, the patient was admitted to the hospital with MSSA bacteremia, extensive DVT of the left lower extremity and worsening pain. Repeat MRI was taken (Figure 2a-2c) which showed complete talar collapse and fractures of the calcaneus and cuboid. A bone scan was also performed (Figure 3) revealing abnormal bone turnover at mid to distal shaft left tibia and left foot. There was also low-level increased activity involving the proximal left tibia. No abnormal sites of increased bone turnover were found outside the left lower extremity.

Unfortunately, the patient died due to her metastatic endometrial carcinoma 8 months after the initial diagnosis.

Discussion

Acrometastasis is extremely rare, with an occurrence between 0.007% to 0.3%. Metastasis to the foot is exceedingly rare and accounts for one-half to one-third the rate for hand metastasis.¹ Though rare, when metastasis is discovered in the foot or ankle, it generally indicates a poor prognosis as the disease state is advanced. Therefore, it is crucial podiatric physicians have a heightened sense of awareness for metastatic differentials in the lower extremity.

Solitary destructive lesions found in the foot must be biopsied, and if malignant features are present, the patient must be medically evaluated for primary tumors. The most common primary tumor with metastasis to the foot are genitourinary tumors⁴, which is consistent with the findings in our case report.

Unfortunately, it may take between 2 weeks and 1 year from initial metastasis for symptoms to emerge. An average diagnosis occurs between 0 to 7 years after onset of symptoms. Mean survival after diagnosis of metastatic lesions discovered in the lower extremity is 14.8 months². It is crucial for physicians to have a high index of suspicion for possible malignant pathology as the outcomes can have detrimental effects on patient prognosis. Early investigation via advanced imaging and biopsy could lead to improved survival rates and overall patient outcomes.

References

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