

Purpose and Literature Review

Endometrial Carcinoma is the most common malignancy affecting the female reproductive tract and the fourth most common cancer diagnosed in women in the United States.^{1,2,3} While the incidence rates of endometrial cancer are increasing, more than 75% of patients are diagnosed with early-stage disease due to the common and clear presentation of abnormal vaginal bleeding, leading to a 5-year overall survival rate of 80-90%.² However, in patients with advanced-stage disease and recurrence, the prognosis is not as reassuring as the metastasis to other organs and bone can become incurable.⁴

Bone metastasis from endometrial carcinoma is rare and its incidence rate has been reported to be about 0.3%.⁴ Reports have also shown that the axial skeleton, which includes the spine, pelvic bone and ribs are the main sites of metastasis. While metastasis to the calcaneus has been reported, it is extremely unusual and can present as other more common ailments such as soft-tissue inflammation, arthritis, osteomyelitis, and trauma.⁵

Due to the rarity of the case, we provide a report to highlight the clinical presentation and modalities used for proper diagnosis of metastatic endometrial adenocarcinoma to the lower extremity.

Case Study

Our patient is a 62-year-old female with a past medical history of diabetes, hypertension, asthma, carotid stenosis, bilateral lower extremity deep vein thromboses, stroke, endometrial adenocarcinoma (T3b N0 Stage IIIb), and is status post total hysterectomy and bilateral salpingo oophorectomy (DOS 4/11/17). She presented to the Emergency Department on 10/12/17 complaining of worsening left foot pain and swelling. The patient states the pain began 4 months prior and has gradually worsened with increased swelling and stiffness, rendering her unable to bear weight on the left foot. She relates the pain is constant, dull and achy with no alleviating factors. On physical exam, there is a large, palpable soft tissue mass noted to the medial aspect of the left hindfoot. The mass encompasses the entirety of the medial ankle extends plantarly to the glabrous junction. The mass is fixed and not freely movable.

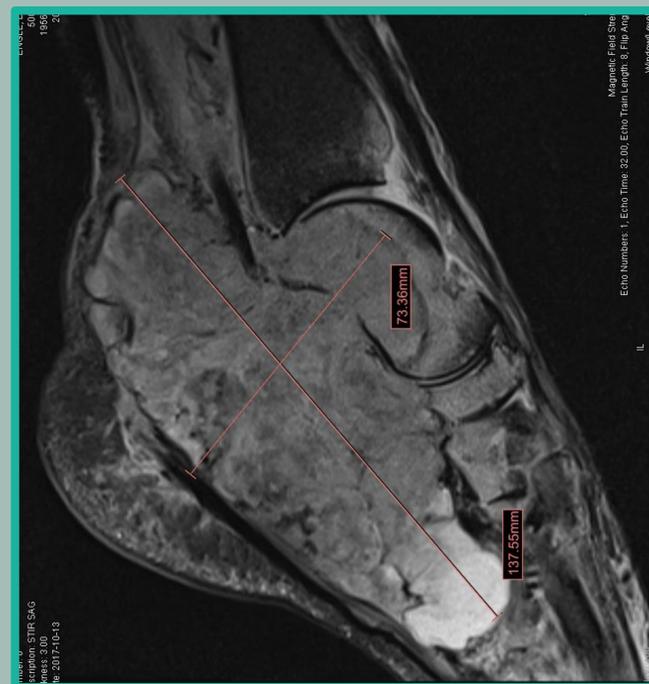
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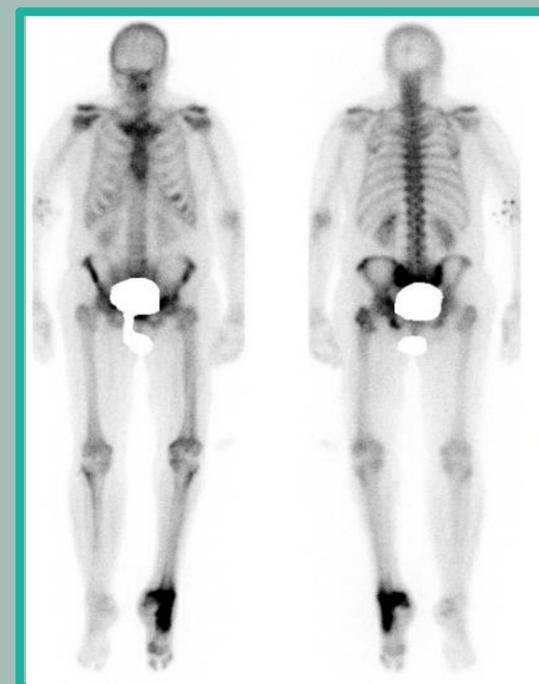
Clinical Image and Corresponding Lateral Foot Radiographic Image



Clinical Image and Corresponding Ankle Radiographic Image



Sagittal STIR MRI Image Showing Size and Increased Signal Intensity of Metastatic Carcinoma



Indium Bone Scan with Increased Uptake to Left Hindfoot

Discussion

Endometrial carcinomas are one of the most common primary cancers and often affect postmenopausal women.⁴ Advanced stages or recurrent endometrial cancer can present with metastasis to the lymph nodes, liver, or the lungs.^{4,6} Bone metastasis secondary to endometrial cancer is a rare occurrence, but are more frequently seen in the spine and pelvis due to the Batson venous plexus that connects the deep pelvic and thoracic veins to the internal vertebral venous plexuses.⁶ Less than twenty cases report metastases to more distant bony sites such as the calcaneus.^{6,7}

Metastatic bone disease is usually seen after first diagnosis and time between diagnosis and metastasis is approximately 6 months to 5 years.⁶ Survival rates after diagnosis of bone metastasis are reported to be about 15 months.⁴ Currently, there are limited studies and no standard for treating metastatic bone disease secondary to endometrial cancer. Treatment of metastatic bone disease depends on staging and tumor extent and includes radiation therapy, chemotherapy, surgical resection, or supportive care.

Our patient is currently undergoing palliative radiotherapy to the left hindfoot and palliative chemotherapy consisting of Carboplatin and Taxol every 3 weeks. It has been over 18 months from initial diagnosis (3/27/17), and she is tolerating the current treatments well. She remains non-weightbearing to her left foot secondary to pain, however, she is optimistic she will be able to walk again.

Conclusion

Bone metastasis to the calcaneus from primary endometrial adenocarcinoma is rare. However, this report demonstrates that metastatic bone disease should remain a differential diagnosis in patients with endometrial cancer that present with a soft tissue mass to the lower extremity.

References

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