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Case Report

Chest wall bone late recurrence of an endometrial adenocarcinoma ☆☆☆

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ABSTRACT

Among gynecological malignancies, Endometrial cancer stands out as the most prevalent form of carcinoma. However, Adenocarcinoma is the most frequent histological type of Endometrial cancer. Endometrial metastases are generally confined to pelvis, and distant metastases are seen primarily in the lymph nodes, lungs, or liver. bone Endometrial metastases are detected from 2% to 6% at diagnosis. Bones metastasis are generally restricted to the pelvis, vertebrae, and femur. Other locations such as the peripheral skeletal, chest wall, cranium and bone recurrence later after initial treatment are very unusual. In cases of bone recurrence, adenocarcinoma is the most seen. CT and PET/CT scan are the most useful diagnostic modality for the detection of a bone metastasis. Here, we report a chest wall bone late recurrence of an endometrial adenocarcinoma.

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Introduction

endometrial cancer is reported to be the fourth most common women tumor [1,2], endometrial cancer metastases are generally confined to the pelvis and distant metastases are seen primarily in the lymph nodes, lungs, or liver [2,3]. endometrial bone metastasis is the most diagnosed from 2% to 6% and is generally restricted to the pelvis and vertebrae [3–5]. Early surgical treatment usually has good results. Hysterectomy, a widely used treatment option grants a 5-year survival rate

of 70% in all cases [2,3]. Other locations of bone metastases from EC, such as peripheral skeletal, chest wall, cranium at the diagnosis and late bone recurrence after surgery treatment are rare [4–6].

Case report

A 65-year-old woman with no prior pathological history underwent surgery for FIGO stage II endometrial adenocarci-

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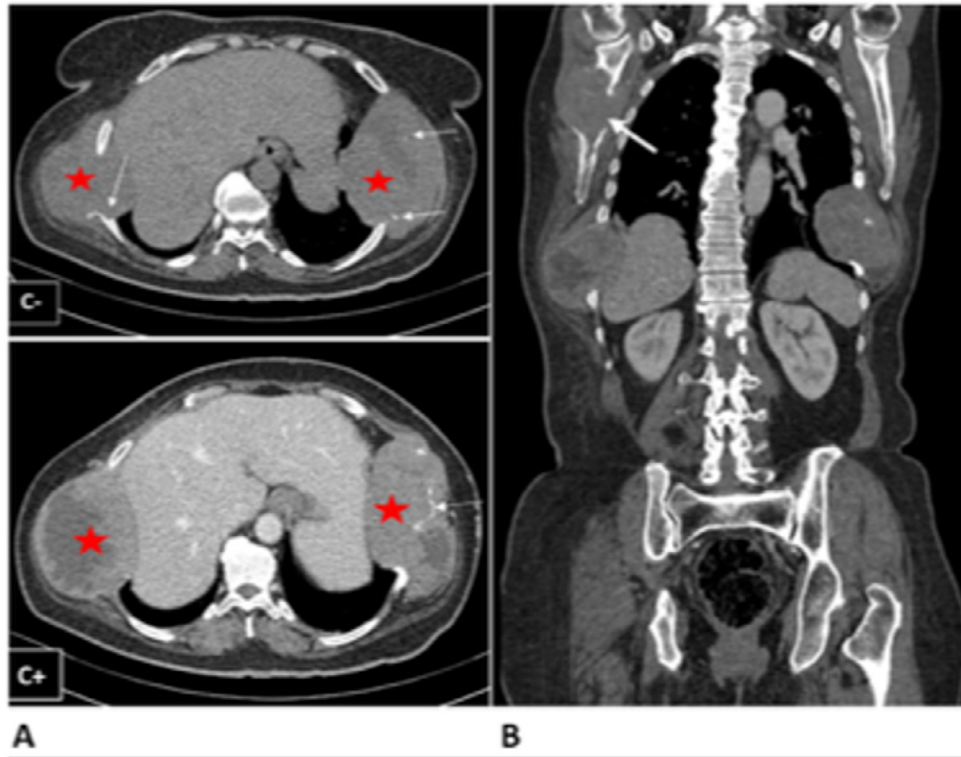


Fig. 1 – (A) Axial CT (before [C-] and after [C+] injection): bilateral basithoracic masses (red star) heterogeneous tissue containing calcifications (white arrow) and necrotic areas with bilateral lysis of the 9th rib. (B) Coronal CT scan showing a right scapular mass with cortical lysis (white arrow).

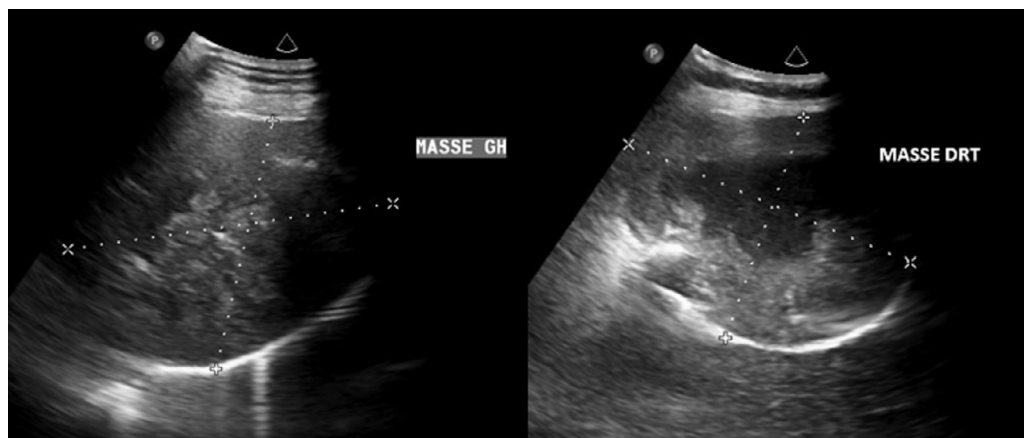


Fig. 2 – Ultrasound image before biopsy: heterogeneous tissue masses with hypo echoic central areas and calcifications.

noma in 2016. Total hysterectomy and bilateral salpingo-oophorectomy with partial omentectomy and pelvic lymph node dissection were performed. Adjuvant radiotherapy was completed, and the patient had favorable outcome with no regional or distant localization during the first 3 years. However, in 2019, the patient was lost to follow-up and only returned in June 2021, reporting intercostal pain and bilateral masses of the chest wall. The CT scan showed no local pelvic recurrence, Abdominopelvic metastatic recurrence or pulmonary metastasis but revealed 2 bilateral masses of the chest wall, heterogeneous containing calcifications and necrotic areas with bi-

lateral lysis of the 9th rib. They measured on the right 103×80 mm and on the left 120×72 mm (Fig. 1). An ultrasound-guided biopsy was performed and showed heterogeneous tissue masses with hypoechogenic central areas and calcifications (Fig. 2). A specimen was taken with an 18G/10 cm Menghini needle. The pathological result, along with immunohistochemical staining was in favor of an adenocarcinoma compatible with the endometrial origin (Figs. 4 and 5). The patient was put on chemotherapy with paclitaxel, carboplatin and zoledric acid. The 7-month follow-up CT scan showed an increase in size of the right masse with regression on the left without

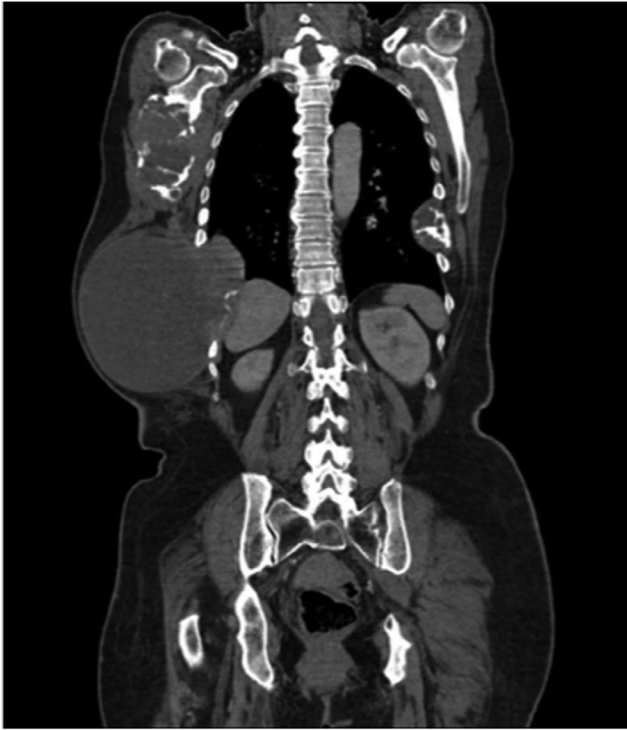


Fig. 3 – Coronal CT scan showing an increase in size on the right with regression on the left.

any other secondary lesions (Fig. 3). Clinically, the patient is in good general condition with a performance score =1.

Discussion

Endometrial cancer (EC) is typically confined to the uterus with 70% of frequency [2,3]. Furthermore, bone metastasis are rare and recurrence of bone metastasis is even rarer [2,3,5]

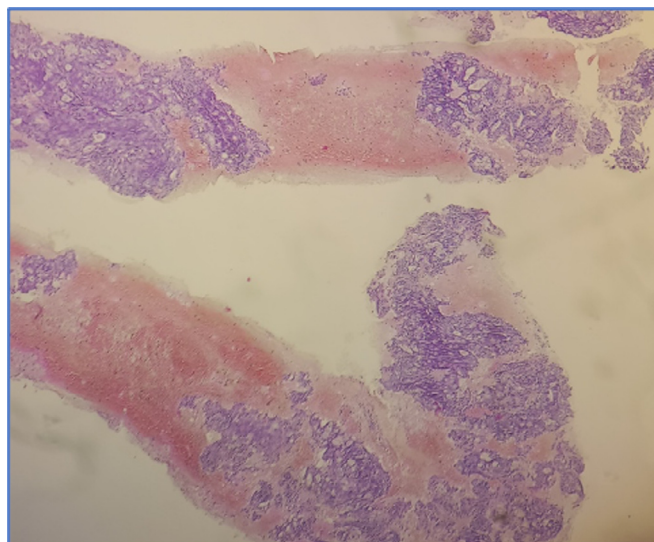


Fig. 4 – Representative tumor micrographs (hematoxylin-eosin): Tumor proliferation shows confluent glandular and cribriform growth consistent with endometrial adenocarcinoma.

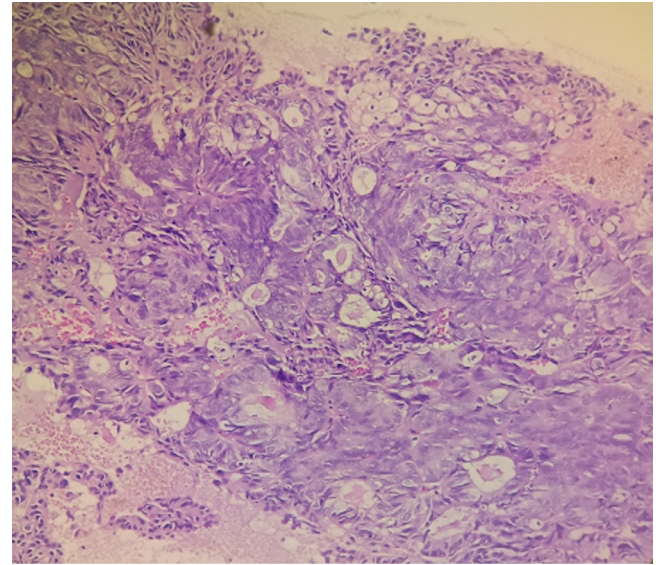


Fig. 5 – Representative micrographs of the tumor (hematoxylin-eosin): Tumor cells have a large nucleus and abundant eosinophilic cytoplasm resembling proliferative type endometrium.

with an incidence from 0% to 15% (4). In a recent study lead by Hong et al. [2] only 18 of 403 (4,6%) of endometrial cancer's bone metastasis were diagnosed. The most common locations of bone metastasis were the pelvis, vertebral spine, and femur [2–4]. However, it is seldom found in other locations such as a chest wall (rib, sternum, and clavicle), peripheral skeletal (tibia, humerus) and cranium [5–7]. Distant bone recurrence (BR) from EC after further treatment is peerless with a frequency of 0.8% as reported by Uccella et al. [4]. In the other hand Kymion et al. [5] declared that the incidence of BR was 0.7% in all EC cases and 6.1% in patients with recurrent EC. Another research done by Kehoe et al. [3] showed that

11/21 bones metastasis of 6144 EC developed bone metastasis as their first recurrence, while 4/21 patients developed bone metastasis as a later recurrence. In most cases, BR was symptomatic and the main symptom was pain. Uccella et al. [4] reported pain at the site of osseous involvement in 19 patients [4]. However, Kymion et al. [5] reported that 7 were asymptomatic and 3 symptomatic. In our case, the site of the recurrence was the chest wall bone of the 9th rib revealed by chest pain. As it is known, the time from the primary diagnosis of endometrial cancer to bone recurrence range is from 3 to 148 months [3], our patient represented chest bone recurrence 5 years later. The study made by Dilek et al. [8] proclaimed chest wall metastasis with destruction of the 10th and 11th rib was only detected 8 years after initial treatment. CT and PET/CT scan is the preferred imaging modality in bone recurrence of EC. Keheo et al. [3] performed CT scan on 18 patients, 14 were positively detected to have bone metastasis. Hong et al. [2] also reported among 403 patients, 18 were diagnosed with osseous metastasis, 9/18 of these patients underwent both PET/CT scan and conventional CT scans, while 5 patients had only conventional CT, and 4 patients were examined by PET/CT. That later identified 2 bones metastasis that were not visualized on the CT scan, which has a better sensitivity [2]. That allows us to say that even if conventional radiography is a first-line examination but it remains less useful than CT and PET/CT. MRI has good sensitivity and specificity in the detection of bone metastasis though it is especially indicated in the follow-up of the loco regional evaluation of endometrial cancer. The most common histological type of EC is endometrial adenocarcinoma in cases of bone recurrence and has been observed mainly in advanced stages disease (FIGO III and IV) [5,9]. Kymion et al. [5] reported that 5 patients had stage IB disease, 1 had stage IIIC1 disease, and 4 had stage IIIC2 disease. In our case, it was an endometrial adenocarcinoma and stage II of FIGO. Even though standard treatment of EC with bone metastasis remains unknown, some common treatment methods for EC include surgery, radiotherapy, and systemic therapies are still useful. Yoon et al. [10] found that patients with bone metastases at recurrence had significantly longer OS than patients with bone metastases at diagnosis of endometrial cancer.

Conclusion

- Bones metastasis of Endometrial Cancer are rare and are generally restricted to the pelvis, vertebrae, and femur.
- Distant bone metastasis at diagnosis and bone recurrence later after surgery treatment are peerless.
- Recurrence of bone metastases may occur later after the suggested radical treatment.
- They are revealed either by bone pain or by imaging during follow-up.

- The most common histological type is an adenocarcinoma in cases of bone recurrence.
- The best diagnostic modality for the detection of bone metastasis are CT scan and PET/CT.

Guarantor of submission

The corresponding author is the guarantor of submission.

Patient consent

Informed consent for patient information to be published in this article was obtained.

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