

CASE REPORT

Endometrial adenocarcinoma with bone metastasis: A case report

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Abstract

We reported a female with endometrial adenocarcinoma who was evaluated with whole-body bone scan for new-onset bone pains 6 months after completion of treatment.

KEYWORDS

bone metastasis, bone pain, endometrial adenocarcinoma, metastatic disease, palliative medicine

1 | INTRODUCTION

Endometrial cancer is one of the common malignant conditions among postmenopausal women. The common presenting complaint of endometrial cancer was uterine bleeding. The bone metastasis among endometrial cancer was very rare ranging from 2% to 15% and in cases where metastasis occurred usually restricted to pelvis or vertebrae.¹ So, here, we present a case of endometrial adenocarcinoma with a bony metastasis to the sacrum.

2 | CASE PRESENTATION

A postmenopausal married woman was admitted to the department of gynecology at the age of 61 due to

abnormal uterine bleeding. There was not any specific past medical and familial history and the patient did not take any specific medications. She mentioned that the bleeding was presented as occasional spotting. The physical examinations including the physical examination of the vagina, cervix, and uterus, were all normal. A pipelle biopsy reported the presence of adenocarcinoma, and therefore, the patient underwent total abdominal hysterectomy and bilateral salpingo-oophorectomy (TAH-BSO), subsequently. The pathologic report showed grade I adenocarcinoma that cancer cells had spread halfway or more into the myometrium without any extension outside of the uterine without extension outside the body of the uterus. The tumor was located at the fundus of it (FIGO stage IB). The patient underwent observation alone.

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Six months after surgery, she was referred to the department due to new-onset bone pain at her pelvic region. Physical examination showed tenderness at the middle part of sacrum and the proximal parts of femur. A whole-body Tc-99m MDP bone scan (WBBS) and computed tomography (CT) scanning of the abdomen/pelvis were requested which showed a single osteolytic metastatic lesion at the greater trochanter of the left femur (Figure 1). Because of the rarity of bone metastasis in patients with endometrial adenocarcinoma and solitary nature of lesion, a CT-guided core needle biopsy was requested. The pathologic examinations confirmed the diagnosis of bone metastasis from endometrial carcinoma.

Palliative radiotherapy with a total dose of 30 Gy delivered in 10 fractions to the metastatic lesion provided a remarkable pain relief. Subsequently, the patients received docetaxel 75 mg/m² and carboplatin area under the concentration-time curve 6 with zoledronic acid 4 mg every 3 weeks for 6 cycles. After completion of docetaxel/carboplatin chemotherapy, zoledronic acid was continued every 4 weeks. Within 12 months of follow-up, the patient was symptom-free and annual imaging showed no recurrence of disease and no progression of bony lesion. However, three months later, she complained of chronic cough which had begun one month ago. A CT scan of thorax showed a solitary pulmonary nodule at the right upper lobe. Due to appropriate time interval between the

last platinum-based chemotherapy and the current disease progression, a rechallenge with docetaxel/carboplatin chemotherapy regimen plus bevacizumab (15 mg/kg every 3 weeks) was initiated and delivered for six cycles. A 12-month follow-up showed no radiologic and symptomatic progression of disease.

3 | DISCUSSION

Endometrial adenocarcinoma can be easily detected during stage 1 because of its early presentation as abnormal vaginal bleeding and most commonly occurs in postmenopausal women of age greater than 60 years. The risk factors of endometrial cancers include obesity, uncontrolled exposure to estrogen, hypertension, PCOS, diabetes, and in people taking hormone therapy for breast cancer (use of tamoxifen). Using the birth control pills (combination of estrogen and progesterone) was found to reduce the risk of endometrial cancers.^{2,3}

In endometrial cancer, mostly metastasis occurs to lymph nodes, liver, and lungs. The common pathway of metastasis was through lymph-vascular route or by direct invasion. Till now, only 2%–6% of endometrial cancers has reported with metastasis to bone.³ Due to bone metastases, osteolytic complication may arise in patients and it was due to the tumor-induced alterations of the Osteoprotegerin (OPG)-RANKL-RANK system.⁴ The bone metastases cause several skeletal complications in cancer patients and affect the quality of life of the patient. Bone fractures, cancer-induced bone pain, spinal cord compression, cancer cachexia, and hypercalcemia were common skeletal complications associated with bone metastases.⁵

In our case, metastasis occurred to sacrum and the metastasis of the endometrial cancers to sacrum is very rare, usually limited to pelvis and vertebrae. But, in literature, there were cases where metastasis occurred to tibia, temporal bone, and skull.^{3,6-9} In a case by Madabhavi et al., endometrial cancer was reported in a 66-year-old postmenopausal women and metastasis was occurred to tarsal bones.³ The case by Madabhavi et al. was managed by systemic chemotherapy consisting of carboplatin and paclitaxel (175 mg/m²) in 6 cycles of 21 days intervals, whereas in our case, it was managed by docetaxel/carboplatin chemotherapy, zoledronic acid, and bevacizumab chemotherapy. Early-stage cancers can be cured using radiotherapy and chemotherapy, but last-stage cancers need surgical removal of the tissue. Carboplatin and paclitaxel are commonly used for treating metastatic endometrial carcinoma.^{3,7} Regarding the recurrence of the cancer, the patient should be educated regarding symptoms and preventive measures.



FIGURE 1 Anterior (A) and posterior (B) planes of whole-body bone scan showing an increased uptake at the greater trochanter of the left femur (red cycle)

Uccella et al. (2013) reported 19 patients (out of 1632 patients) with bone metastases of endometrial cancer. The lesions were detected in the spine and hip mostly, and radiotherapy was the treatment of choice in all patients.¹⁰ Moreover, the presence of bone metastasis in other parts have been reported.¹¹

Considering the new innovation in the management of malignant disease¹²⁻¹⁶ and pivotal role of genetic assessment in the treatment of endometrial cancer (role of POLe and P53 mutations), new reports should consider these genetic changes as well.¹⁷⁻¹⁹

4 | CONCLUSION

Despite the rarity of condition, any new-onset bone pain in patients with endometrial cancer should be assessed for bone metastasis.

AUTHOR CONTRIBUTIONS

M.M., T.K.S., and A.E. contributed to conception, design and drafting of the manuscript. M. Gh and M.A.F. contributed to data collection. M.A.F. and D.F. contributed to drafting of the manuscript. D.F. supervised the study. All authors approved the final version for submission.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data sets used and/or analyzed during the current study are available from the corresponding authors per request.

ETHICAL APPROVAL

The study was approved by Babol and Qom Universities of medical Sciences. The study conforms to recognized standards of Declaration of Helsinki. An informed written consent form was obtained from the patient.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

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