

Endometrioid type endometrium adenocarcinoma with brain and bone metastasis with early fatal outcome: A case report

Erken dönemde ölüm ile sonuçlanan beyin ve kemik metastazı mevcut endometrioid tip endometrium adenokanseri: Olgu sunumu

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Abstract

Endometrial cancer is the most common gynaecological cancer in developed countries and brain and bone metastasis are extremely rare. A 47-year-old, gravida 1, para 1 woman had undergone endometrial biopsy for menometrorrhagia and had been diagnosed to have grade 2, endometrioid type endometrial carcinoma. She was referred to and operated in our hospital. One month later, she admitted to the emergency department with right sided paresthesia and multiple metastatic lesions were detected in cranial magnetic resonance imaging (MRI). After the completion of the brain radiotherapy, her medical condition was deteriorated. She had dyspnea and back pain. Imaging of the thorax showed multiple metastatic lesions in vertebrae and lungs. The patient died on the 76th postoperative day. To the best of our knowledge, this patient was the sixth case reported in the literature diagnosed with endometrial cancer with concomitant bone and brain metastasis.

Key words: endometrial cancer, brain metastasis, bone metastasis

Özet

Endometriyal kanser gelişmiş ülkelerde en sık görülen jinekolojik kanserdir. Beyin ve kemik metastazı oldukça nadir görülmektedir. 47 yaşında, gravida 1, parite 1 kadın hasta menometroraji sebebiyle yapılan endometriyal biyopside grade 2 endometrioid tip endometrium kanseri tanısı almıştır. Hastanemize sevk edilmiş ve hastanemizde opere edilmiştir. Bir ay sonra, parestezi şikayeti ile acil servise başvuran hastanın beyin MR'ında çok sayıda metastatik lezyon tespit edilmiştir. Beyin radyoterapisinin tamamlanmasından sonra hastanın medical durumu kötüleşmiştir. Dispne ve kemik ağrıları şikayetleri olması üzerine toraks görüntülemesi yapılmıştır. Metastatik kemik ve akciğer lezyonları tespit edilmiştir. Hasta postoperatif 76.günde hayatını kaybetmiştir. Bildiğimiz kadarıyla bu vaka, kemik ve beyin metastazı ile seyreden literatürdeki altıncı vakadır.

Anahtar kelimeler: endometriyal kanser, beyin metastazı, kemik metastazı

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Introduction

Endometrial cancer is the most common gynaecological cancer in developed countries. It is usually diagnosed at early stages due to abnormal uterine bleeding and therefore long-term survival is expected in most patients. However, metastatic disease can be seen at the time of diagnosis and the cancer most commonly tends to spread to regional lymph nodes, liver and lungs. Nevertheless, brain and bone metastasis are extremely rare. There are only 101 reports of endometrium cancer with bone metastasis and 116 cases with brain metastasis (1, 2).

In this report, we describe a case of endometrial carcinoma with bone and brain metastasis diagnosed during the early postoperative period which resulted in a very short survival.

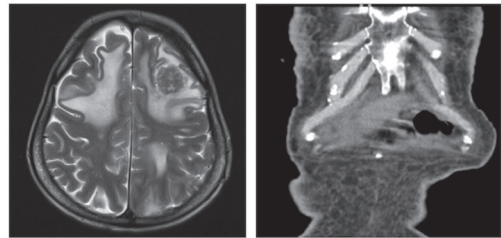
Case report

A 47-year-old, gravida 1, para 1 woman had undergone endometrial biopsy for menometrorrhagia and been diagnosed to have grade 2, endometrioid type carcinoma of the endometrium. She was referred to our hospital for surgical management. No further imaging was requested since she had neither additional symptoms nor elevated serum CA 125 level. During surgery, neither ascites nor gross extrauterine spread was detected on exploration. Total abdominal hysterectomy and bilateral salpingo-oophorectomy was performed and a grade 3 endometrioid type endometrial adenocarcinoma with a tumor diameter of 5 cm, involving cervical stroma and invading myometrium deeply was reported on frozen sections. Accordingly, omentectomy and bilateral pelvic and para-aortic lymph node dissection was performed. The final pathology revealed that she has stage 3C2, grade 3 disease according to the International Federation of Gynecology and Obstetrics (FIGO) system. The results were discussed on multidisciplinary tumor board and a decision of chemotherapy followed by extended-field external radiation to the para-aortic and pelvic regions was made.

The first course of the chemotherapy was given three weeks after the operation and one week later, the patient was admitted to emergency department of our hospital with paresthesia on the right side. Multiple metastatic lesions, with the largest dimension 2.4 cm were detected in brain magnetic resonance imaging (MRI) (Figure 1). The patient was consulted to the neurosurgery department and was considered to be as inoperable. Brain radiotherapy was administered.

The patient was hospitalized one week after the completion of the brain radiotherapy due to the deteriorated medical condition. She had dyspnea and back

pain. Imaging of the thorax showed multiple metastatic lesions in vertebrae and lungs. (Figure 1). During the follow-up, no improvement on general medical condition was observed and cardiac arrest occurred on the 76th postoperative day. The patient was recognized as exitus after a lack of response to cardiopulmonary resuscitation.



Picture 1&2: Brain and thorax imaging.

Discussion

Endometrial cancer is mostly seen in women age 40 and older. Although direct local invasion and lymphatic spread are more common, hematogenous spread is possible. Risk of bone and brain metastasis via the hematogenous route in endometrial cancer is 2-6% and 0.3-1.1%, respectively (2, 3). These uncommon metastases are mostly seen in the high-grade tumors and usually develop as part of disseminated disease or associated with widespread abdominopelvic recurrences. The relatively small number of cases reported in the literature, therefore no clear consensus for treatment had been found in the literature.

Bone metastasis of endometrial cancer is mostly seen in vertebrae (4). In a literature review, Shigemitsu et al. reported that bone metastasis were detected with a median time period of 17 months (range 1-148 months) after the initial diagnosis of endometrial cancer (4). In that report, the median survival of patients after the detection of bone metastasis was 8.5 months (range of 1-54 months). In case of bone metastasis, radiotherapy is most commonly used, but systemic chemotherapy may also be given especially in patients with distant metastasis other than bone. In addition, zoledronic acid may be used effectively for bone metastasis and its use is associated with decreased bone pain (5).

Brain metastasis from endometrial carcinoma is most commonly detected in cerebellum. Brain metastasis is usually diagnosed following the detection of primary disease with a median interval of 17 months (range 2 to 108 months). Almost half of the patients

had isolated brain metastasis while the other half had brain metastasis with extracranial disease (6). Patients with brain metastasis have poor prognosis with a median survival of 5 months (range 0.1-171 months). Radiotherapy is often preferred as a treatment choice but surgery, chemotherapy and radiotherapy combinations can also be considered according to patient status.

Uccella et al. mentioned that there were only three endometrial cancer cases reported with bone and brain metastasis together in the literature and they added 2 more cases with their study (2). In the light of the literature, this patient was the sixth case of the endometrial cancer with concomitant bone and brain metastases.

References

1. Doger E, Cakiroglu Y, Ozdamar O, Ceylan Y, Kole E, Yucesoy I, et al. Bone metastasis in endometrial cancer: evaluation of treatment approaches by factors affecting prognosis. *Eur J Gynaecol Oncol.* 2016;37(3):407-16.
2. Uccella S, Morris JM, Multinu F, Cliby WA, Podratz KC, Gostout BS, et al. Primary brain metastases of endometrial cancer: A report of 18 cases and review of the literature. *Gynecol Oncol.* 2016;142(1):70-5.
3. Loizzi V, Cormio G, Cuccovillo A, Fattizzi N, Selvaggi L. Two cases of endometrial cancer diagnosis associated with bone metastasis. *Gynecol Obstet Invest.* 2006;61(1):49-52.
4. Shigemitsu A, Furukawa N, Koike N, Kobayashi H. Endometrial cancer diagnosed by the presence of bone metastasis and treated with zoledronic Acid: a case report and review of the literature. *Case Rep Oncol.* 2010;3(3):471-6.
5. Croucher P, Jagdev S, Coleman R. The anti-tumor potential of zoledronic acid. *Breast.* 2003;12 Suppl 2:S30-6.
6. Piura E, Piura B. Brain metastases from endometrial carcinoma. *ISRN Oncol.* 2012;2012:581749.