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


Anahtar kelimeler: endometriyal kanser, beyin metastazı, kemik metastazı
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 multi-disciplinary 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.

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 mostly 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