Breast Cancer with Silent Metastasis to Uterine Cervix

Uterin Servikse Sessiz Metastaz Yapmış Meme Kanseri Olgusu

Meme Kanserinin Serviks Metastazı / Cervical Metastasis of Breast Cancer

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Özet

Anahtar Kelimeler
Meme Kanseri; Metastaz; Serviks; Ovaryan Metastaz

Abstract
Metastases to female genital organs from extragenital cancers are uncommon. Uterine cervix is one of the less uncommon site of the genital tract for extragenital organ tumors. We present a case of operated breast cancer who had silent metastases to the ovaries and uterine cervix. Metastatic involvement of the gynecologic organs should be considered in women with a history of breast cancer who present with vaginal bleeding or suspicious changes on transvaginal ultrasound. Uterine cervix should always kept in mind as a part of metastasis.

Keywords
Breast Cancer; Cervix; Metastasis; Ovarian Metastasis
Introduction
Metastasis of distant malignancies to the cervix uteri is a rare occurrence with a frequency of 0.3% for all tumors [1,2]. However, the frequency of cervical metastasis of breast cancer is much lower and there are only 35 breast cancer with cervical metastasis cases reported in literature [3]. Because of the situation was rather uncommon, it might be difficult to diagnose for the clinician.

Case Report
A 40 years old woman with a history of breast cancer was referred to the gynecology out-patient clinic for routine control. She had a history of left sided total mastectomy and axillary lymph node dissection operation because of a malignant mass in her left breast and 6 courses of TAC (Docetaxel, Adriamycin, Cyclophosphamide) chemotherapy and 25 days of radiotherapy (a total dose of 5000 cGy) after the operation. She was at the 20th months of the adjuvant chemotherapy. Hormonotherapy with Goserelin and Tamoxifen was planned because of the positive (90%) estrogen and progesterone hormone receptors in the pathologic examination of the tumoral tissue. The physical examination and findings at imaging of the genital organs were completely normal (Figure 1). Total hysterectomy with bilateral adnexectomy was planned because of the patient’s anxiety about the breast tumor and willingness for the operation. The appearance of the intraabdominal organs including the uterus and the adnexes were normal. The pathologic investigation revealed that metastasis of invasive lobular breast cancer in bilateral ovaries and the uterine cervix. The microscopic tumor areas was found in the exocervical area and in the lymphatic vessels. On macroscopic examination there was not any mass in the uterine cervix, uterus and bilateral ovaries. Endometrium and myometrium had no significant pathological findings. However, beneath the normal squamous epithelium of the cervix and in more deeper stromal areas there were multiple foci of non-cohesive cells having hyperchromatic nuclei and scanty cytoplasm, some with signet ring-cell appearance. These cells formed no organoid pattern (Figure 2). In some areas the tumor cells were seen in lymphatics forming thrombi. On sections from both ovaries, similar cells were found to diffusely infiltrated ovarian stroma (Figure 3). Immunohistochemical (IHC) analysis revealed reactivity for cytokeratin, estrogen receptor (ER), progesterone receptor (PR), mammoglobulin and gross cystic disease fluid protein-15 (GCDFP-15), whereas the cells were negative for E-cadherin (Figure 4-5). All these findings were consistent with the patient’s history having lobular carcinoma in her breast. The result of the pathologic investigation was consulted with medical oncology department and additional chemotherapy with Gemcitabine and Kapesitabin (1-8/28 days) was decided to start. The patient is under the 4th course of chemotherapy with normal imaging on computerized tomographic examination.

Figure 1. No finding is seen in cervix (arrowed) on sagitally reformatted pelvic MDCT.

Figure 2. Foci of tumor comprising with non-cohesive cells just beneath the squamous epithelium of the uterine cervix (H&E X100).

Figure 3. Diffusely infiltrating tumor cells of in the ovary (H&E X40), inset (H&E X100).

Figure 4. Positivity of tumor cells with cytokeratin, left side-ovary (X40) and right side-uterine cervix (X100).
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Discussion

Uterine cervix is a curious area for extragenital tumor metastases. Mazur et al collected a series of 149 cases metastases to the female genital tract from extragenital cancers and only 3.4% (5/149) cases were found to be metastasized to uterine cervix [4]. The most common sites of the primary tumor were the breast and the stomach in cervical metastasis from the extragenital organ cases [5].

Although genital organs are not common sites for the metastatic spread of the extragenital tumours, if a metastatic spread is being discussed, the ovaries are the most common gates to the genital tissues because of the intrinsic features of ovarian stroma. It is thought that, the uterus and cervix might be possibly influenced by lymphatic spread from the ovary to the other genital sites [3].

The most common presenting symptom was abnormal vaginal bleeding (57%) followed by suspicious changes of the cervix on transvaginal ultrasound [6]. However, no clinical sign was present in 32% of the patients in literature and 41% of the reported cases were found only at autopsy [7]. Cervical cytology could diagnosed the neoplastic cells in only 50% of these cases [1]. No gynecologic sign or symptom was found in our patient and the result of the cervical cytologic was clear, as well. The only indication for operation was patient’s anxiety and persistence for the operation. Prophylactic gynecologic operations in patients with predisposition to cancer are shown to be reduced the overall cancer risk. However, early onset menopause is an adverse effect which had to be discussed with the patient [8].

Metastatic involvement of the genital organs including the cervix should be considered in women with a history of breast cancer who present with vaginal bleeding or abnormal ultrasound. It should be kept in mind that sometimes these metastases might be asymptomatic and patient’s desires should be taken into account while giving decision about her disease.

Competing interests

The authors declare that they have no competing interests.

References


How to cite this article:

Figure 5. Tumor cells infiltrating uterine cervix showing positivity with A) mamoglobin (X400) B) GCDFP-15 (X400) C) PR (X200) D) ER (X200).