

The Second Incisional Site Metastasis in a Patient with Cervical Carcinoma: A Case Report

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Cervical cancer is the third most commonly diagnosed cancer and the fourth leading cause of cancer deaths in females worldwide. Recurrence of carcinoma of the uterine cervix mainly occurs locally or regionally after treatment. Rarely (0.1-1.3%) metastatic recurrence of squamous cervical carcinoma could be identified in the abdominal wall especially in sites of incision. We present a case with a second incisional site metastasis of cervical cancer after seventy five months following first operation.

Key Words: Cervical cancer, Incisional site metastasis, Recurrence

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Introduction

Cervical cancer is the third most commonly diagnosed cancer and the fourth leading cause of cancer deaths in females worldwide, accounting for 9% of the total new cancer cases and 8% of the total cancer deaths among females in 2008.¹ Recurrence of carcinoma of the uterine cervix mainly occurs locally or regionally after treatment. The most frequent recurrence sites are the parametrium, pelvic lymph nodes and vagina.² Cervical cancer mainly spreads via the lymphatic pathway. Hematogenous metastases are uncommon and occur mainly in the liver, lungs and bones. Rarely (0.1-1.3%) metastatic recurrence of squamous cervical carcinoma could be identified in the abdominal wall especially in sites of incision.³

We present a case with a second incisional site metastasis of cervical cancer after seventy five months following first operation.

Case Report

A 38-year-old woman had myomectomy operation in July 2002. The pathology of specimen was malign epithelial tumor. Therefore, she was referred to our hospital. Pathologic speci-

men wasn't examined in our hospital again, since it couldn't be obtained. The preoperative pelvic examination of the patient was normal. The surgery was performed in August 2002 via a midline incision. During the operation, type 1 hysterectomy and bilateral salpingo-oophorectomy was performed firstly. Since frozen/section revealed a tumor with cervical origin, she underwent parametrectomy and bilateral pelvic and paraaortic lymph node dissection. Postoperative pathology was squamous cell (large cell keratinized type, grade 1) carcinoma of cervix with negative parametrial involvement and negative surgical margins. The size of the tumor was 57×25×25 mm. It was located in the cervical canal beginning from 6 cm upper part of the external os and extended to the uterus. Lymph nodes were also negative. The patient didn't take adjuvant therapy. Postoperative control examinations were made quarterly for the first 3 years, half yearly for the second 2 years and then annually.

On examination in November 2008, a hypoechoic solid mass 45x30 mm in dimensions was detected on the superior part of urinary bladder which was 1.5 cm below subcutaneous tissue and observed in abdominal ultrasonography. She complained of a pain and stiffness in the lower quadrant of the abdomen. When evaluated with computed tomography, a 30x45 mm hypodense cystic lesion was found in the subcutaneous tissue which was at the superior part of symphysis pubis and in relation with the anterosuperior wall of urinary bladder. The mass was making pressure on the bladder. Appearance of the lesion on computed tomography was evaluated as diverticular fistula. Patient had normal rectovaginal pelvic examination and pap-smear. The patient was re-operated. During the operation the mass was totally removed. The pathology report of the mass was squamous cell carcinoma metastasis. Therefore, a total of 36 Gy in 12 fractions of external radiotherapy to the anterior abdominal wall and inguinal lymph nodes in daily

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doses of 300 cGy were administered. Patient was followed up for 3 years regularly. She didn't come for follow-up nearly one and half a year. Then she came to our clinic with a complaint of a palpable mass in the lower quadrant of the abdomen on February 2013. On examination, a lesion that was evaluated as a metastatic mass or organized hematoma was observed. Abdominal ultrasonography revealed two semisolid masses in size of 80x60x30 mm and 17x30x40 mm without prominent vascularization at the midline of the abdominal wall, 5-6 cm inferior to the umbilicus and 18 mm below the skin. Pelvic magnetic resonance imaging showed 60x30 mm, regular, lobulated cystic mass without contrast enhancement at the right paracentral region between urinary bladder and rectus abdominis muscle. Also a 30x8 mm regular lobule cystic mass near the midline and at the inferior part was noted with pelvic MRI. There was no other metastasis.

Wide local excision of the two tumors with the right rectus abdominis muscle and sheath was performed. We didn't repair the defect with mesh at the right anterior part of the abdominal wall. The pathology specimen was again squamous cell carcinoma metastasis. Then patient was referred to radiation oncology. Totally 45 Gy of conventional fractions of radiotherapy to the surgical space of mass in the anterior abdominal wall was administered. The patient has been followed for three months from the surgery.

Discussion

The incidence of scar recurrences after surgical treatment for cervical cancer (0.1-1.3%) is similar to other malignancies.³ According to Imachi et al., the incidence of skin metastases of cervical squamous cell carcinoma is 0.9% and cervical adenocarcinoma is 5.8%.⁴

The mechanism for distant metastases was described by the "seed and soil" theory. Also inflammatory oncotaxis process creates a favorable environment for implantation and growth of malignant cells.³ By combining the concepts of seed and soil and inflammatory oncotaxis, we can understand why a surgical wound is prone to nestling and growth of both iatrogenic implanted and circulating cervical tumor cells.³

The factors that are associated with a greater risk of disease recurrence are higher FIGO stage, involvement of parametrium, positive resection margins and tumor diameter greater than 4 cm.³ Patients with positive nodes at primary diagnosis have a much higher risk of distant metastases than those with negative lymph nodes⁵

The median time to recurrence ranges from 7 to 36 months after primary treatment.^{5,6} In a systematic review of the literature, 62 to 89 percent of cervical cancer recurrences were detected within two years of primary treatment, while by year 5,

89 to 99 percent of recurrences were detected.⁷ Scar recurrences seem to be part of the presence of more extensive metastatic disease and seem to be similar to other metastases.³

The case reports and review of the literature show a wide time range between the diagnosis of scar recurrence and surgery. The late scar recurrences can be explained by dormant tumor cell theory. Tumor dormancy is a state of temporary mitotic arrest in tumor cells preventing further growth or metastasis.³ The dormancy of tumor cells could be caused by an equilibrium state in the body with tumor growth being controlled by the host immune system. In use of immunosuppressant, the tumor cells can grow expansively or attain new capacities that allow them to escape from the immune system and form a metastasis.⁸

The median time of recurrence was reported as 14 months and 16 months in two different studies.^{3,9} The maximum time from surgery to scar recurrence of cervical cancer reported in the literature was two hundred and four months.¹⁰ The case was described in 1994. The histological type was cervical adenocarcinoma and FIGO stage of the tumor was 1b. Recurrence site was abdominal scar and there were other concurrent systematic metastasis.^{3,9} The maximum time from surgery to scar recurrence of cervical cancer with a histological type of squamous cell carcinoma like our case reported in the literature was sixty six months.¹¹ The case was described in 2003. The FIGO stage of the tumor was 1b and recurrence site was episiotomy site. There was no concurrent systematic metastasis.^{3,9} In our case the time from surgery to first recurrence was seventy five months which was longer than sixty six months.

The prognosis of cervical cancer patients with surgical scar metastasis is generally poor with survival ranging from 1 to 37 months (mean, 8.5 months).⁴ In our case, patient had a second abdominal scar recurrence 51 months after the first recurrence surgery. There was no concurrent metastasis in both recurrences of our case. Therefore, survival may be better than the others.

The cause of scar recurrence is unclear yet. The possible mechanism of scar recurrences may be tumor seeding, hematogenous or lymphatic spread. The main problem is to decide whether the scar recurrences are local recurrences or distant metastasis. When a scar metastasis is suspected, patient should be evaluated carefully for other site metastasis, since treatment will be decided according to the extent of the recurrence. Treatment of such recurrences includes wide surgical excision, radiotherapy and chemotherapy. In cases with scar recurrence and other site metastasis, treatment is palliative. Surgery is the mainstay of the treatment in local scar recurrence combined with radiotherapy or chemotherapy.

The factors affecting the recurrence time, optimal manage-

ment and survival length remain unclear. Scar recurrences are associated with poor survival and seem to be a manifestation of tumors with extensive metastatic potential and more extensive metastatic disease. So that, large patient groups or multi-center investigations are needed to evaluate the characteristics, treatment protocols and survival of patients with scar recurrence.

Serviks Kanseri Hastasında İkincil İnsizyonel Hat Metastazı: Olgu Sunumu

Serviks kanseri dünyada kadınlarda en çok tanı konulan üçüncü kanserdir ve kansere bağlı ölümlerin 4. sıklıktaki nedenidir. Serviks kanserinin nüksü tedavi sonrasında genellikle lokal ve bölgesel olarak gelişir. Nadiren (%0,1-1,3) bu nüks karın ön duvarında özellikle de insizyon hattında görülebilir. İlk ameliyatını takip eden 75. ayında ikincil insizyonel hat metastazı ile gelen hastayı sunacağız.

Anahtar Kelimeler: Serviks kanseri, İnsizyonel hat metastazı, Rekürans

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