

Unexpected Findings: Cutaneous Metastasis in Squamous Cell Carcinoma of the Cervix – A Rare Case Report

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Abstract

Skin metastasis from squamous cell carcinoma of the uterine cervix is a rare occurrence with reported incidences ranging from 0.1% to 2%. This often indicates advanced-stage disease and poor prognosis. We present the case of a 50-year-old multiparous woman diagnosed with cervical squamous cell carcinoma FIGO stage 2A1 following a six-month history of abnormal uterine bleeding. Despite initial treatment with radical hysterectomy, the patient was noncompliant with postoperative radiotherapy and experienced disease recurrence manifesting as vaginal and cutaneous lesions. Subsequent chemotherapy failed to halt disease progression, leading to palliative care. The timing of skin metastasis onset following primary treatment is a crucial prognostic factor, with earlier appearances indicating poorer outcomes. Skin metastases are often preterminal, necessitating palliative care.

Keywords: Cutaneous metastasis, External beam radiotherapy, Chemotherapy, Cervical carcinoma.

Introduction

Cervical carcinoma ranks fourth in global female neoplasms and second among gynecological malignancies, with an incidence of 16.56 per 100,000.¹The routes of spread involve local extension via lymphatic and hematogenous pathways, with common metastatic sites being the bones, lungs, and liver. Cutaneous metastasis from cervical cancer is rare, occurring at a rate of 0.7%–1.3%. Patients with distant metastases have low curability rates, necessitating accurate lesion identification and treatment review. Here, we present a rare case of skin metastasis from cervical squamous cell carcinoma (SCC), which rapidly developed after initial treatment.²

Case Report

A 50-year-old multiparous woman, perimenopausal, presented with a six-month history of abnormal uterine bleeding, and clinical examination revealed a 3x4 cm exophytic cervical growth involving the upper third of the vagina, without parametrial or rectal mucosal involvement. Pelvic and abdominal magnetic resonance imaging confirmed these findings, excluding parametrial and nodal involvement. Cervical biopsy confirmed the diagnosis of squamous cell carcinoma (SCC). Comprehensive preoperative assessment, including imaging and laboratory investigations, preceded the decision for type C radical hysterectomy with bilateral pelvic lymphadenectomy. Histopathology

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confirmed moderately differentiated SCC without regional lymph node metastasis, and the cancer stage was FIGO (International Federation of Gynecology and Obstetrics) stage 2A1. As a part of standard care, postoperative adjuvant radiotherapy was planned for the patient, but the patient was noncompliant.

After six months, the patient experienced irregular vaginal bleeding, and examination revealed a 2x2 cm vault lesion and a 1x1.5 cm cutaneous nodule over the lower anterior abdominal wall. Biopsies of cervical and cutaneous lesions confirmed SCC recurrence. A positron emission tomography-computed tomography (PET-CT) scan revealed a 2x2.5 cm vault lesion and a 1.7x1.5 cm lesion on the lower anterior abdominal wall, resulting in a final FIGO stage IV B classification. The case was discussed in a multidisciplinary tumor board meeting, leading to a treatment plan for paclitaxel and carboplatin (TP) chemotherapy. Despite completing six cycles of TP, a follow-up PET-CT revealed disease progression with extensive involvement of the vault, abdominal wall, and retroperitoneal lymph nodes along with an increase in the size of the cutaneous metastasis (**Figure 1,2**). Palliative radiotherapy was initiated for pelvic disease control, but due to the advanced disease, palliative care was ultimately recommended.

Discussion

Cutaneous metastasis from cervical cancer is a rare phenomenon, with reported incidences ranging from 0.1% to 2%. Cutaneous metastasis in squamous cell carcinoma, which is typically associated with adenocarcinoma, is rare. To date, only 17 cases of cutaneous metastasis of squamous cell carcinoma have been documented. The metastatic pathways of cervical cancer include direct extension, lymphatic spread, and hematogenous dissemination pathways.

In this case, the patient's clinical history, distant metastatic sites, and lesion distribution suggested hematogenous dissemination. Cutaneous metastases are secondary lesions where malignant cells invade skin tissue through various routes, including tissue spaces, blood vessels, lymphatics, or even surgical implantation.³

Skin metastases are frequently misdiagnosed as benign lesions and can present macroscopically in three common patterns: nonulcerative nodules, sclerodermal plaques, and inflammatory capillary dilatation lesions. Painful skin lesions, as observed in our patient, can be an initial indication of metastasis, consistent with previous reports. Common sites for cutaneous metastasis from cervical cancer include the back, abdomen, lower and upper extremities, and chest. Unusual presentations such as scalp metastasis, surgical incision involvement, or involvement of diversion ostomy site involvement have also been documented.³ In our patient, the main manifestation was bleeding per vagina and an ulcerated skin lesion over the lower abdominal region.

Given the rarity of this malignancy, the literature evidence mainly consists of case reports and small case series, leading to various treatment approaches. Thus, a multidisciplinary team is essential for individualized patient management. Skin metastases isolated from cervical cancer can be treated, with palliative radiation, which is often used for symptom control. Primary treatment typically involves excision of skin lesions followed by radiotherapy. Surgical resection and radiotherapy are commonly used for limited lesions, while palliative chemotherapy is reserved for extensive disease.⁴ Despite the use of palliative chemotherapy in our patient, disease progression occurred, necessitating a shift to palliative care.

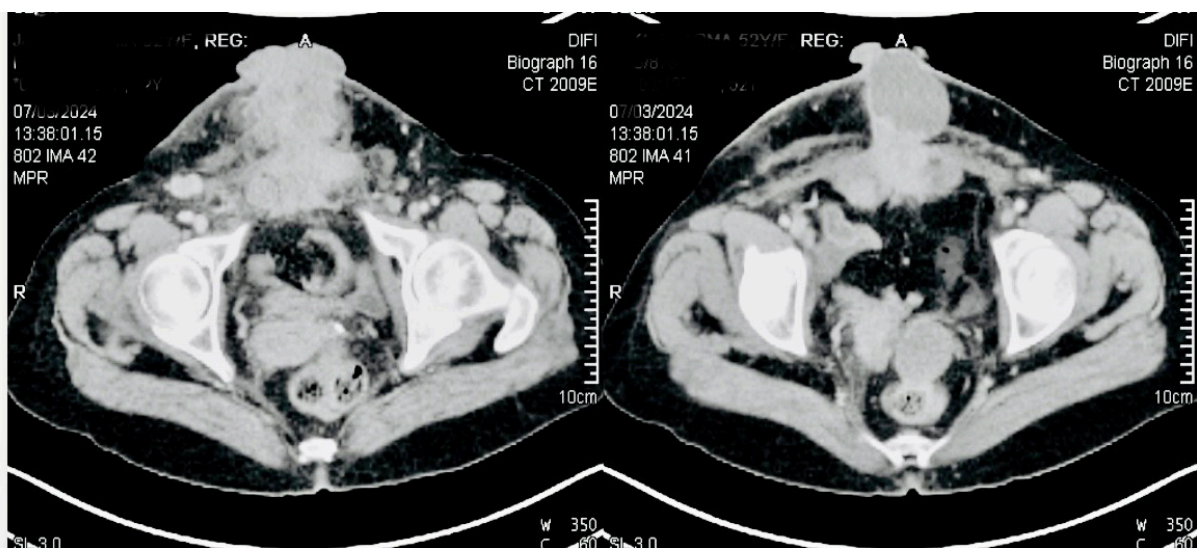


Figure 1- PET-CT showed heterogenous density lobulated mass with areas of internal necrosis measuring ~ 8.2x6.1 cm noted in the infra umbilical anterior abdominal wall midline location infiltrating the rectus abdominal muscles and the subcutaneous plane, along with nodular mass in the vaginal vault.



Figure 2- Large ulceroproliferative cutaneous metastasis of 8x8 cm in the lower abdomen in the infraumbilical region.

The timing of skin metastasis onset following initial treatment for primary genital malignancies is a crucial prognostic factor. An earlier appearance of metastasis typically correlates with a poorer prognosis. Skin metastases are often preterminal, with the time frame between appearance and death ranging from 1.5 to 2.6 months.³ Currently, our patient is receiving palliative care, aligning with the understanding that the emergence of skin metastases in cervical carcinoma generally indicates advanced-stage disease.

Conclusion

Skin metastasis from squamous cell carcinoma of the uterine cervix is rare. The appearance of skin metastases from cervical carcinoma typically indicates advanced-stage disease and is associated with a poor prognosis, often necessitating palliative care.

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