

Atypical skin metastases from cervical squamous cell carcinoma: a case report and review of literature

Abstract

Backgrounds: Cutaneous metastases of Squamous cell carcinoma of the uterine cervix are exceedingly rare. Only about 50 cases have been described in the literature.

Methods and findings: Herein we report a new case of a 61-year-old Tunisian woman having cutaneous metastases of a new diagnosed cervical cancer. The uterine tumor was discovered after metrorrhagia. On skin examination we discovered a suprapubic, left lateral thoracic and left occipital budding cutaneous and subcutaneous masses. Biopsies of both the cervical mass and skin lesions led to the diagnosis of squamous cell carcinoma of the uterine cervix. The patient progressed and died after 3 cycles of palliative chemotherapy.

Conclusion: We report a case to illustrate a rare localization of skin metastasis from cervical carcinoma that is highly aggressive and require early detection.

Keywords: skin metastasis, cervical cancer

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Introduction

Squamous cell carcinoma of the uterine cervix is a very common malignancy in women. Lymphatic spread is the main way for distant metastases. The most frequent metastatic sites are lymph nodes, liver and lungs. Cutaneous metastases are exceedingly rare. Only about 50 cases have been described in the literature. The data concerning the therapeutic management as well as the prognostic remain poor and unclear in the literature. Herein we report a new case of a Tunisian woman having cutaneous metastases of a new diagnosed cervical cancer.

Case presentation

We report the case of a 61-year-old Tunisian woman, gravida 1, para 1, menopausal for 11 years, with a family history of breast cancer (one sister). She was admitted on April 2018 to Salah Azaiez National cancer Institute of Tunisia with a 10-years history of metrorrhagia, watery foul-smelling vaginal discharge and pelvic pain of progressive worsening. On physical examination the patient had a good general condition. Pelvic examination revealed the presence of easily friable cervical mass of 5cm which bled on touch. It invaded the anterior vaginal fornix. The uterus was enlarged in size. Lymph node examination showed the presence of bilateral enlarged inguinal lymphadenopathy of 12cm largest diameter, as well as a left axillary lymphadenopathy of 5cm. On skin examination we discovered a suprapubic subcutaneous mass of 5cm, a left lateral thoracic subcutaneous mass of 6cm as well as an enormous left occipital budding mass of 15x11cm. Pelvic magnetic resonance imaging showed the presence of a cervical tissue mass of 4x5cm invading the endometrium, myometrium as well as multiple bilateral internal iliac and inguinal lymphadenopathy, sized from 1 to 5cm. No metastases were identified in the lungs or liver on CT scan. Blood tests including complete blood count, renal and hepatic functions were normal. The patient underwent a biopsy of the cervical mass with an excisional biopsy of the subcutaneous thoracic mass and the left axillary lymphadenopathy. Histological findings concluded to a squamous cell carcinoma well differentiated keratinizing of the cervix. The left axillary adenopathy was invaded by the same tumor proliferation. Histopathological report of the thoracic mass concluded also to

cutaneous and subcutaneous deposits of an invasive moderately to well differentiated keratinizing metastatic epidermoid carcinoma of the cervix. The disease was staged as stage IVB according to the current 2018 FIGO cervical cancer staging system. The case was discussed at a multidisciplinary team meeting. The decision was to make a first line palliative combination chemotherapy using Paclitaxel (135mg/m²) and Cisplatin (75mg/m²) every three weeks. Chemotherapy begun on April 2018. During the course of chemotherapy, blood tests remained satisfactory however the general condition of the patient quickly deteriorated. The Karnovsky index went from 2 to 4. She became cachectic. The skin masses increased in size. The occipital budding mass became bleeding on contact, super-infected, foul smelling, containing worms with large areas of necrosis (Figure 1). She finally received only two cycles of chemotherapy achieved on October 2018. The patient died of her illness on November 20th, 2018.¹⁻⁶



Figure 1 Cutaneous metastasis in the scalp of a cervical squamous cell carcinoma.

Discussion

Cutaneous metastases of malignant tumors are extremely rare. According to the cases and retrospective series reported in literature, their frequency varies from 0.7 to 10% of all cancer patients. The

most likely primary malignancies in which cutaneous metastases occur are breast cancer (60%), large intestine carcinoma (9%), lung, kidney, and ovarian cancers. Skin metastases of cervical cancer are exceedingly rare. Only few cases have been reported in literature. Their reported incidence very from 0.1 to 4.4%. Their occurrence is higher in adenocarcinoma and undifferentiated carcinoma than in squamous cell carcinoma.

The physio pathological mechanism underlying the spread of cutaneous metastases is not well-defined and understood. Usual mode of spread has been suggested to be hematogenous or lymphatic. Some authors believe in hematogenous spread in case of downstream metastases, while lymphatic spread might be the way of skin dissemination when they are close to the primary tumor. Cologlu et al.⁵ believe that cutaneous implantation can be achieved when the pulmonary blood flow is bypassed via the Batson's plexus of the azygos cerebrospinal venous anastomotic system. They also mentioned that tumor cells have the ability to survive the filtering process of the lung circulation.

Most of the time, the site of cutaneous metastases of cervical cancer tend to be close to the primary tumor. The most common reported sites are the abdominal wall, vulva and anterior chest wall. The face, hand or the scalp like the case of our patient are unusual localizations that have been exceptionally mentioned.

The occurrence of cutaneous metastases does not seem to be substantially dependent on the stage of the disease. However, they generally appear at the time of local or metastatic recurrence. In most cases, the reported average time between the diagnosis of the primary tumor and the occurrence of cutaneous metastasis is about 20 months and the longest reported time is 10 years. In the largest series of Imachi et al.³ that gathered 1190 cases of cervical carcinoma, 15 cases had skin metastasis. The mean delay between diagnosis and onset of cutaneous metastases was 16.9 months. In our patient we discovered cutaneous metastases at diagnosis. However, the patient had a history of metrorrhagia for 10 years, which suggests that the primary tumor may have been present for some years before diagnosis.

The most commonly described lesions are nodules, plaques and less frequently inflammatory telangiectatic lesions. Our patient had suprapubic and left lateral thoracic subcutaneous plaques and an enormous solid cauliflower-shaped and bleeding mass on the scalp.

Histologically, the contrast between cutaneous metastases and cutaneous epidermoid carcinomas is the presence of a large cutaneous component unrelated to the epidermis. It can be associated with necrosis, inflammation or lymphatic vascular invasion. The prognosis of this entity is appalling with a median survival rate of between 3 and 7 months from the onset of skin metastases and it is zero percent at one year.

Therapeutic data in the literature are very poor. The reference treatment remains chemotherapy with a platinum doublet. The combination of chemotherapy with Bevacizumab could also bring a benefit. It would be advisable to include these patients in therapeutic trials.⁶⁻¹¹

Conclusion

Cutaneous metastases of cervical cancer are rare but must be suspected and biopsied in front of any suspicious skin lesion associated to this malignancy. Their prognosis is poor. Even if in this situation patients are amenable to palliative treatment, therapeutic management should be initiated as soon as possible to provide patients with a better prognosis and a more comfortable quality of life.

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Conflicts of interest

Authors disclose no conflict of interests in publication of this study.

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