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CASE REPORT

Cancer Uterine Cervix Metastasizing to Breast

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About the Author

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Introduction

Metastases to breast from extra mammary site are uncommon. Most of the metastases to breast are from malignant melanoma, lymphoma, lung, stomach, and ovary, but metastasis from primary cervical cancer is very rare. Worldwide cancer cervix is the second-most common malignancy among women. It usually spreads by local extension and through lymphatics. Distant and hematogenous metastasis occurs in 12 % of cases, with the common sites of occurrence being liver, lung, and bone. Metastasis to breast is very rare. Here we present a case of carcinoma cervix which metastasizes to breast within 4 months after treatment of the primary.

Case History

Forty-year-old female presented to us with bleeding per vaginum and pain in abdomen. Clinically she had ulceroproliferative growth over both lips of cervix and all fornices with involvement of both parametrium upto lateral pelvic walls. On histopathology, it was revealed to be squamous cell carcinoma Grade II. She was labeled to have carcinoma cervix III b. Other systemic, biochemical, and hematological examination findings were within normal limits. She received concurrent chemotherapy with once-weekly Gemcitabine 180 mg along with external radiotherapy on linear accelerator to a dose of 60 Gy/30 fractions with localizing fields to limit rectal dose upto May 2013. The patient tolerated the treatment well and had complete local response. Four months later, she presented

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with a 3-cm diameter firm mobile lump in the upper inner quadrant of right breast. Other systemic examination was normal. CT scan of the abdomen and chest showed the breast mass only; no other lymphadenopathy or metastasis was seen, and there was complete local control. Wide excision of the mass in breast was done. Histopathology showed metastatic squamous cell carcinoma in the breast. The patient was put on palliative chemotherapy with Paclitaxel and Carboplatin once in 3 weeks; after six cycles, she was given external radiotherapy to the breast and axilla 50 Gy/25 fractions with photons on linear accelerator, and 15 Gy/6 fraction local boost to medial quadrant of right breast was given with 6 MeV electrons. On 1, June 2014, the patient had developed para aortic lymph node metastasis and was started on palliative chemotherapy with cisplatin and 5Fu combination. She has completed three cycles of chemotherapy and is doing well. At present, there is no growth over cervix and breast, but the para aortic node is still persisting.

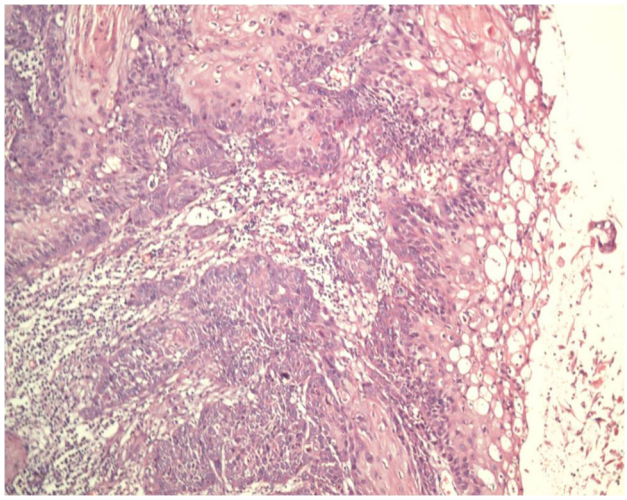

Fig. 1 Squamous cell carcinoma from cervix

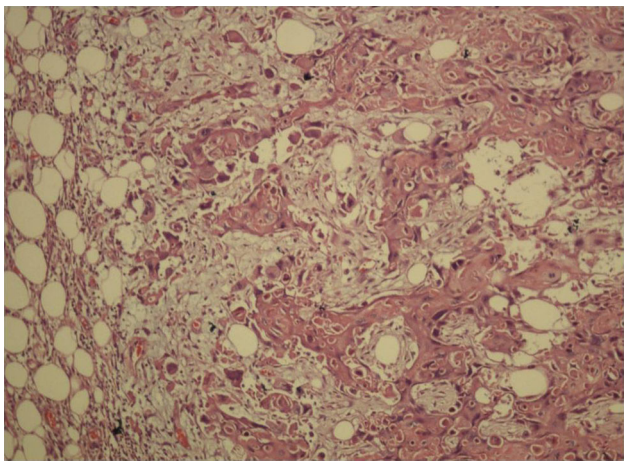

Fig. 2 Typical keratin pearls with metastatic squamous cells in breast

Discussion

Cervical cancer is the most common malignancy in female genital tract which usually spreads to adjacent organ and pelvic and para aortic lymph nodes. Hematogenous spread is rare and spreads commonly to lungs, extra-pelvic lymph nodes, liver, and bones. Metastasis to other sites as brain and breast are very uncommon. The autopsy incidence rates of metastasis to breast with extra mammary primary range from 1.4 to 6.1 %, and the clinically observed rates are 1.2 %. Reported cases of gynecological malignancy metastasizing to the breast mostly involve ovarian cancer. Only a few reports of metastasis to breast from primary cervix cancer have been published in the world literature [1–3]. The literature review showed that breast metastasis from cervical carcinoma has some characteristics features that present as a discrete mobile swelling in subcutaneous location of upper outer quadrant. Skin and chest wall invasion is late. Bertucci reported a patient who developed progressive breast involvement with skin fixity and paeu'd orange with axillary lymph nodes and lung metastasis 1 year after completion of treatment for cervix cancer. Our case has a mobile lump in upper inner quadrant, with the rest of the features remaining the same. Histologically, it was showing typical keratin pearls with malignant squamous cells correlating with histological picture from cervical cancer (Figs. 1, 2).

Different treatment groups showed different patterns of recurrences. Patients who received radiation showed an increased risk of extrapelvic hematogenous metastasis, whereas the surgical group showed an increased risk of pelvic nodal and extra pelvic metastasis both. Our patient also presented with breast mass after 4 months of treatment but had a localized breast nodule only.

Oslem Yetmen [4] found only 29 reports of patients with metastatic breast tumor from cervical cancer in the literature. Review of the reported cases shows that most presented with a single palpable mass. Bilateral breast metastasis were reported in three patients, while inflammatory breast mass was reported in one patient. Of the 29 reported cases, 9 patients had locally advanced, and 10 had early cervix cancer at presentation. Most of the patients were known to have widespread disease prior to metastasis to the breast and had a poor prognosis. The most common sites of synchronous metastases were the lung, bone, and liver. Despite further treatment, mainly in the form of chemotherapy, most of the patients had a rapidly fulminating course and died within 1 year of presentation of breast metastasis.

The management of cervical carcinoma with metastasis to the breast is not clear as it is a rare clinical entity. Majority of reports contemplate on palliative chemotherapy and radiotherapy. A rare case of cervical carcinoma presenting as metastasis in breast is reported by Yadav in a patient aged 58 years who was diagnosed and treated for cervical carcinoma, FIGO stage 2B. Four months after the treatment which included both external beam and intracavitary radiotherapy, the patient presented with breast and lung metastasis. Palliative mastectomy was done which improved the general condition of the patient. Our patient also underwent lumpectomy followed by chemotherapy and radiotherapy to the breast and presently is doing well.

Conclusion

We reported this case of breast metastasis from a cervical squamous cell carcinoma based on the clinicoradiological and pathological arguments, notably the primary diagnosis of cervix cancer. Differential diagnosis of such cases with breast metastasis is very crucial, and the delivery of appropriate treatment should be systemically considered due to poor prognosis in such cases as also seen in our patient who has now developed para aortic lymph nodal metastasis after a disease-free interval of 4 months.

Ethical Statement There are no ethical issues and no financial association regarding this case.

References

1. Carol MY, Barbara GS, Cheryl DD. Metastatic cervical carcinoma to the breast. Gynaecol Oncol. 1992;45:211–3.
2. Kelley JL III, Kanbour-Shakir A, Williams SL, et al. Cervical cancer metastatic to the breast: a rare presentation of tumor dissemination. Gynecol Oncol. 1991;43:291–4.
3. Yadav P, Manjunath N, Deo S, et al. Role of surgery in breast metastasis from carcinoma of the cervix. Indian J Palliat Care. 2011;17:74–6.
4. Yetmen Ö, Çolpan Öksüz' D, Demirkıran F, et al. Unusual presentation of cervical carcinoma metastasis to the breast: a case report and review of literature. J Breast Health. 2012;8:92–6.