Zosteriform Cutaneous Metastases with Primary Endometrial Carcinoma

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Abstract
Cutaneous metastases from endometrial adenocarcinoma are ominous and are seldom seen, though metastases occurring at the local sites, such as pelvic and para-aortic lymph nodes, vagina, peritoneum, and lungs are well recognized. The zosteriform pattern of lesions is even more rare. Here, we describe an interesting case of a 60-year-old female with carcinoma endometrium, presenting with zosteriform cutaneous metastasis.

Key Words: Carcinoma endometrium, cutaneous metastasis, zosteriform

Introduction
Cutaneous metastasis due to internal malignancy usually develops late in the course of the disease.[1] The common tumors that metastasize to the skin are breast, lung, colon, and ovary.[2] Skin metastases are more frequently seen as papules or nodules and can show ulceration at later stage.[3] The zosteriform pattern of distribution of these lesions is an exclusive and an even rarer form of presentation.[4] The most common primary for cutaneous metastasis is breast cancer in women and lung cancer in men.[5] Cutaneous metastases from endometrial adenocarcinoma are rare and when present are often associated with poor prognosis.[6] Although carcinoma endometrium is relatively common in women, skin metastases are extremely rare, with large necropsy studies quoting an incidence of <1%.[7] Here, we report the case of a 60-year-old female presenting with zosteriform cutaneous metastasis.

Case Report
A 60-year-old female presented to the physician with reddish, raised skin lesions over her left flank. The physician initiated acyclovir assuming herpes zoster and sought dermatology opinion. On examination, there were multiple erythematous, infiltrated, nontender, firm-to-hard papules and nodules, unilaterally along the left T11 and T12 dermatomes [Figure 1]. Four years ago, she had endometrial carcinoma and was treated by radical hysterectomy with bilateral oophorectomy and adjuvant chemotherapy. The patient recently developed vertebral metastasis. An incisional skin biopsy was done, which showed a nest of tumor cell infiltration in the dermis, having ill-defined cell borders and increased nucleocytoplasmic ratio [Figures 2 and 3]. This confirmed the diagnosis of cutaneous metastasis. Positron emission tomography scan showed widespread metastases in the rectum, mesentery, rectovesical pouch, iliac group of lymph nodes, vertebral bones, soft tissue and lungs [Figures 4 and 5]. Within 2 months of the development of cutaneous metastasis, the patient succumbed to the illness.

Discussion
Women with cutaneous metastases have the following primary malignancies in the order of decreasing frequency: breast, lung, ovary, oral cavity, and large intestine. Worldwide, cutaneous metastases represent 2% of all cutaneous neoplasms. Although endometrial carcinoma is a common gynecological cancer, it only rarely metastasizes to the skin, with a reported incidence of 0.8%.[8]

Clinically, cutaneous metastasis can have varied morphology ranging from papules, nodules, ulcers, and plaques to tumors, with usually four histopathological
forms involving the dermis, namely, nodular, infiltrative, diffuse, and intravascular. These lesions may be the only manifestation of an underlying visceral cancer. Zosteriform pattern is a very unusual type of cutaneous metastases, with only a few reported cases. The mechanism of zosteriform distribution often remains unknown. However, the proposed theories include lymphatic spread, Koebnerization at the site of previous zoster infection, surgical implantation of tumor cells, and neural spread through the dorsal ganglia. Clinically, metastases are localized in proximity to the underlying internal carcinoma. In this reported case, the possible pathomechanism was lymphatic spread and spread along the dorsal nerves from the vicinity of vertebral metastases.

The strategy for cancer treatment and management in cutaneous metastases is to determine the tumor origin, which is often achievable with tissue biopsy, supported by immunohistochemical markers of the metastatic nodule. However, this may prove unhelpful in settings, where the patients would have visited several hospitals and had surgeries without histological diagnosis or confirmation of excised lesions. On the contrary, in our case, the biopsy enabled us to confirm the presence of cutaneous metastasis in relation to carcinoma endometrium.

The recurrence of malignancy as cutaneous metastases in a previously treated primary endometrial carcinoma is an uncommon occurrence. In the reported cases, the recurrence of metastasis from endometrial cancer has been most commonly noted at the site of initial surgery. The relapse of internal malignancy as a skin nodule at the site of surgery could be due to implantation, rather than true metastases, and this also needs to be examined. More rarely, distant cutaneous sites, including scalp, toes, and trunk, have been reported. The prognosis of the patient in case of cutaneous metastases...
depends primarily on the pathology and biological behavior of the primary neoplasm and its response to treatment; however, cutaneous metastases, especially from adenocarcinoma of the endometrium are markers of poor prognosis.\textsuperscript{[12]} One of the important factors influencing survival is the time elapsed between the diagnosis and the appearance of the skin recurrences. To date, there is no treatment with proven efficacy for cutaneous metastasis of endometrial carcinoma.

**Conclusion**

Cutaneous metastases from endometrial carcinoma are rare and associated with poor prognosis. Here, we describe an intriguing case of zosteriform cutaneous metastasis associated with primary malignancy of endometrium. It highlights the ever-increasing list of causes of zosteriform lesions.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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**Conflicts of interest**

There are no conflicts of interest.

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