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DERMATOLOGIC THERAPY WILEY

LETTER

Zosteriform cutaneous metastasis: A case series

Dear Editor,

Cutaneous metastases are skin malignancies which appear as tumor cells spreading over skin directly, hematogenous or lymphatically from primary tissue. It is comorbid in 0.7% to 10% of cancer patients[1] and forms 2% of skin malignancies.[2] Breast, malignant melanoma, ovarian and lung cancers are the most common causes in women, and malignant melanoma, head and neck and lung carcinomas in men develop cutaneous metastasis. Clinically, nodular appearance is the most common form. It can rarely be presented with carcinoma erysipeloides, neoplastic alopecia, erythema annular-like, zosteriform or target-like lesions.[1] Zosteriform pattern is a rarely seen subtype and there have been less than a hundred case declarations in the literature.[3] There are four cases in our clinic diagnosed with histopathologic cutaneous metastasis imitating herpes zoster skin rash.

The first case, a 52-year-old male patient with asymptomatic swelling and radiant papule spread of the T5-T7 dermatome in the right chest, was diagnosed with right chest cancer 17 years ago (Figure 1A). A biopsy was performed to confirm the diagnosis (Figure 2A,B).

The second case, a 62-year-old female patient with complaints of painful swollen and shiny papule spread of the T3-T5 dermatome in the left chest, was diagnosed with chest cancer 4 months ago (Figure 1B). A biopsy was performed to confirm the diagnosis (Figure 2C,D).

The third case, a 52-year-old male patient with asymptomatic swelling and shiny papule spread of the T4-T6 dermatome in the right chest, was diagnosed with lung cancer 51 months ago (Figure 1C). A biopsy was performed to confirm the diagnosis (Figure 2E,F).

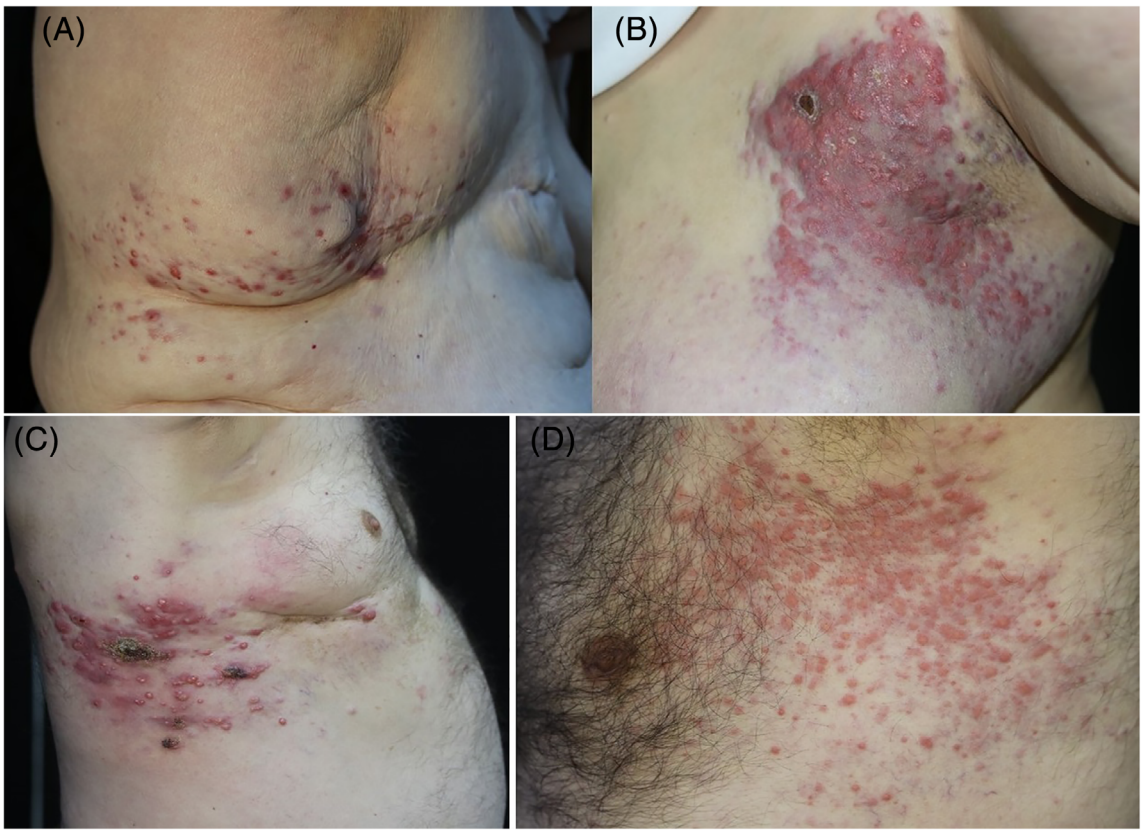

FIGURE 1 A-D, Four cases of cutaneous metastasis in the zosteriform pattern manifested by infiltrated erythematous shiny papules

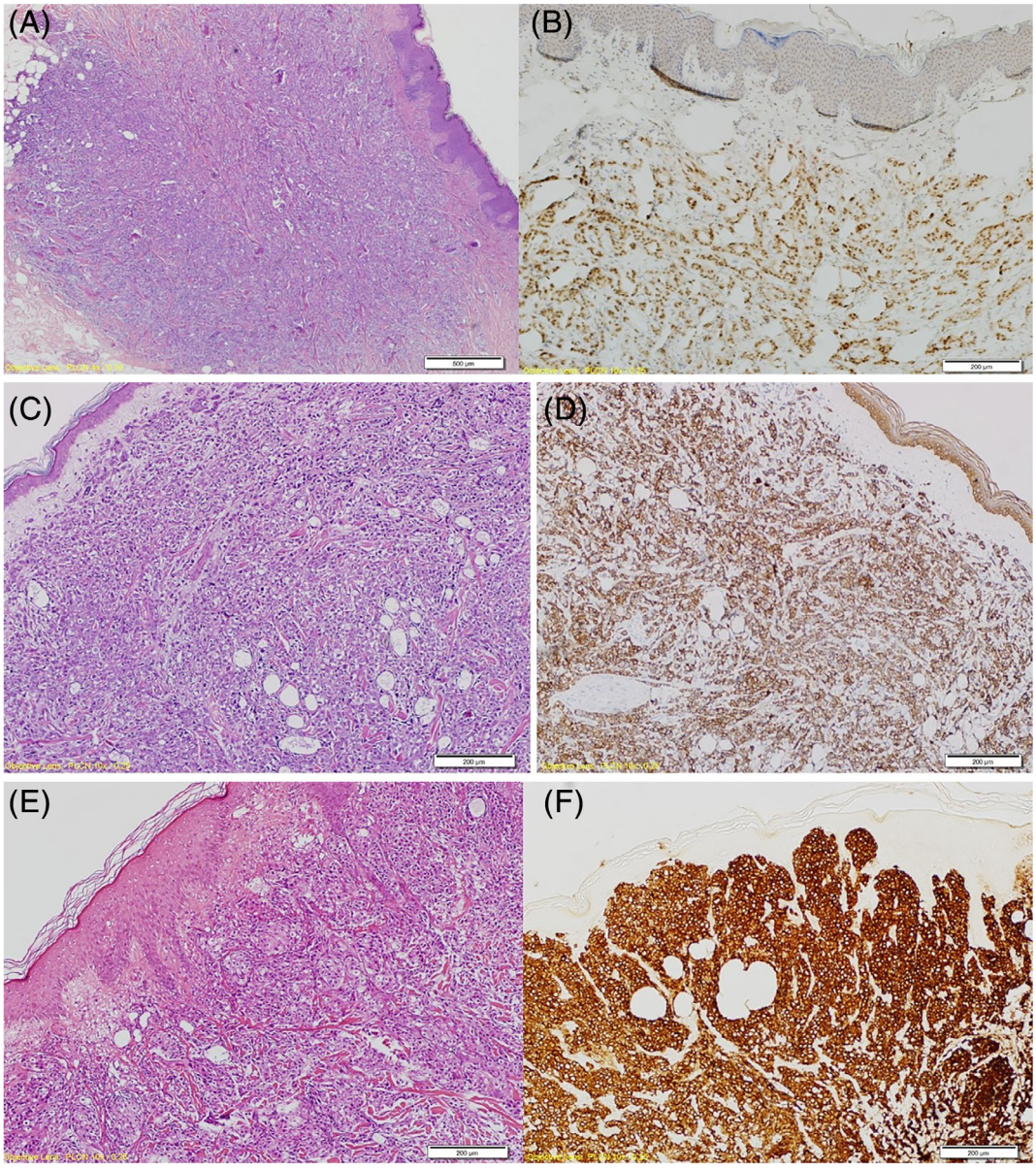

FIGURE 2 A, Metastatic breast carcinoma. Beneath keratinized squamous epithelium, there are tumor cells arranged in small nests, solid islands, well-formed glandular structures, cords or scattered singly infiltrating from superficial dermis to subcutis. Neoplastic cells are epithelioid in appearance, have high nucleus/cytoplasm ratio, pleomorphism and atypia. There are some mitoses (hematoxylin and eosin [H&E], ×4). B, Estrogen receptor (ER) + tumor cells in dermis. C, Metastatic breast carcinoma. Beneath keratinized squamous epithelium, there are tumor cells arranged in small nests, solid islands, well-formed glandular structures, cords or scattered singly infiltrating from superficial dermis to subcutis. Neoplastic cells are epithelioid in appearance, have high nucleus/cytoplasm ratio, pleomorphism and atypia. There are some mitoses (H&E, ×10). D, Pancytokeratin (PanCK) + tumor cells in dermis. E, Metastatic lung carcinoma. There is an epithelial tumoral infiltration composed of glandular structures or individual single cells with hyperchromatic nucleus infiltrating collagen bundles under keratinized thin epidermis (H&E, ×10). F, Cytokeratin (CK7) + tumor cells in dermis

The fourth case, a 50-year-old male patient with complaints of asymptomatic swelling and radiant papule spread of the T2-T4 dermatome in the left chest, was diagnosed with stomach cancer 4 months ago (Figure 1D). A biopsy was performed to confirm the diagnosis.

In literature, the primary malignancies that develop zosteriform pattern cutaneous metastasis are breast cancer, malign melanoma, lung cancer, lymphoma and squamous cell carcinoma.[4,5] Two of our four zosteriform patterned cutaneous metastasis cases developed as a result of breast cancer, one case developed because of lung cancer and one developed because of stomach cancer.

As the diagnosis of zosteriform pattern cutaneous metastasis is difficult, it can result in late diagnosis and malpractice. It can be confused with herpes zoster infection because it occurs in oncologic and hematologic malignant immunosuppressive patients, and

because of its dermatomal spread, bright papules are observed and are sometimes painful. The fact that lesion is felt hard in palpation, the onset and progress are slow, the pain is not much and that vesical or necrose is not comorbid is on behalf of metastasis. Definitive diagnosis can be made with histopathologic examination. For differential diagnosis, lichen planus, spiradenoma, papular mucinosis and drug reactions can be considered as well as herpes zoster infection.[5]

More than 60% of cutaneous metastasis are adenocarcinoma. They generally result from colon, lung and breast cancer. There is a clear zone between epidermis and metastatic area.[1] Immunohistochemistry is helpful in cutaneous metastasis diagnosis.

Our cases were consulted by the oncology department with a pre-diagnosis of herpes zoster infection. Zosteriform pattern cutaneous metastasis should also be considered in herpes zoster that is commonly seen as a skin lesion in malignant patients.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

AUTHOR CONTRIBUTIONS

Deniz Dagdelen took part in patient care, follow-up, photography, data collection, literature review and writing and preparation of the manuscript. Ayse Serap Karadag is the primary physician of concerning patients, supervisor of the process, created the idea, designed the process, analyzed the outcome and was involved in the writing and preparation of the manuscript. Necmettin Akdeniz took part in diagnosis, creation of idea and reviewed the article. Seyma S. Ozkanli was involved in diagnosis and investigation of pathologic materials and reviewed the article. Mehmet S. Gurel took part in diagnosis and reviewed the article.

Deniz Dagdelen[1]
Ayse Serap Karadag[1]
Necmettin Akdeniz[1]
Seyma S. Ozkanli[2]
Mehmet S. Gurel[1]

[1]*Department of Dermatology, Goztepe Research and Training Hospital, Istanbul Medeniyet University, Istanbul, Turkey*
[2]*Department of Pathology, Goztepe Research and Training Hospital, Istanbul Medeniyet University, Istanbul, Turkey*

Correspondence
Ayse Serap Karadag, Department of Dermatology, Goztepe Research and Training Hospital, Istanbul Medeniyet University, Istanbul, Turkey.
Email: karadagaserap@gmail.com

ORCID

Ayse Serap Karadag https://orcid.org/0000-0003-4333-8274

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