ISSN : (Online): 3008-038X
Abbreviation: J Derm Cse Rep
DOI: 10.61705/jdcr.19.2.2026.146.150

Journal of Dermatological Case Reports

Verrucous Cutaneous Metastasis Of Breast Carcinoma Arising On A Radiated Mastectomy Scar

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Abstract:

Cutaneous metastasis from breast carcinoma typically presents as papulonodular lesions or inflammatory patterns, while verrucous presentation is exceptionally rare and often mimics benign post-surgical changes. We report a middle-aged woman who presented with a five-year history of thickening and hyperpigmentation over the right mastectomy site following modified radical mastectomy, chemotherapy, rotational subtotal skin electron beam therapy, and Tamoxifen. The hyperpigmented, thickened skin progressively became verrucous and indurated, extending into the axillary fold as a painless, hyperkeratotic plaque with irregular surface, no ulceration, and no lymphadenopathy. Differential diagnoses included hypertrophic scar, lymphangioma circumscriptum, chronic lymphedema-associated changes, verrucous carcinoma, Marjolin ulcer, and cutaneous tuberculosis. Histopathological examination revealed epidermal hyperplasia with hyperkeratosis, dermal infiltration by atypical epithelial cells arranged in nests and cords, nuclear pleomorphism, dense desmoplastic stromal reaction, and focal duct-like structures consistent with cutaneous metastasis of breast carcinoma. This case highlights the diagnostic challenge of verrucous cutaneous metastasis mimicking benign scar tissue or primary verrucous carcinoma, with delayed presentation (five years post-mastectomy) contrasting typical early recurrences, underscoring that skin lesions at mastectomy sites warrant histopathological evaluation regardless of time elapsed. Early recognition and biopsy are crucial for appropriate management as cutaneous metastasis indicates disease recurrence and influences treatment strategy including systemic therapy and local control measures.

Keywords:

Cutaneous metastasis, Breast carcinoma, Verrucous plaque, Mastectomy scar, Histopathology.

Received : 05-05-2026 **Revised : 15-05-2026** **Accepted: 30-05-2026** **Published : 05-06-2026**

Introduction

Cutaneous metastasis from breast carcinoma occurs in approximately 5–23.9% of patients and typically presents as papulonodular lesions, though rare variants include plaques, diffuse thickening, and verrucous lesions.[1] The mastectomy scar is a well-documented site for recurrence, often resulting from direct seeding during surgery, lymphatic spread, or hematogenous dissemination, with mastectomy bed involvement reported in a substantial proportion of cutaneous metastases from breast cancer.[2] These lesions can mimic benign post-surgical changes such as hypertrophic scars, chronic lymphedema-related skin alterations, or

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inflammatory conditions, making histopathological confirmation essential for accurate diagnosis.[1,2] Verrucous cutaneous metastasis is an uncommon presentation that may be mistaken for verrucous carcinoma, Marjolin ulcer, or other hyperkeratotic lesions, underscoring the importance of including metastatic disease in the differential diagnosis of any progressive, indurated lesion at a mastectomy site.[3] Histopathological features such as epidermal hyperplasia with hyperkeratosis, dermal infiltration by atypical epithelial cells in nests and cords, nuclear pleomorphism, and desmoplastic stromal reaction are characteristic of cutaneous metastasis of breast carcinoma and help differentiate it from benign scar tissue or primary cutaneous malignancies.[4] This case report highlights a rare verrucous presentation of cutaneous breast carcinoma metastasis five years post-mastectomy, emphasizing diagnostic challenges and the critical role of histopathology in confirming recurrence.

Case Report

A middle aged woman presented with thickening and hyperpigmentation over the mastectomy site of right breast since five years. She had undergone modified radical mastectomy and completed chemotherapy radiotherapy (eg- rotational subtotal skin electron beam therapy) and hormonal therapy (Tamoxifen). The hyperpigmented and thickened skin over the surgical scar progressively became verrucous and indurated. It is painless and discharge was not noted as shown in figure 1.

FIGURE 1 : HYPERPIGMENTATION OVER RIGHT BREAST

On examination, the verrucous plaque extending into axillary fold. The lesion is hyperkeratotic with irregular surface. There was no ulceration and lymphadenopathy as shown in figure 2.

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FIGURE 2 : HYPERKERATOTIC WITH IRREGULAR SURFACE LESION

Histopathological examination shows epidermal Hyperplasia with hyperkeratosis. Dermal infiltration by atypical epithelial cells arranged in nests and cords Nuclear pleomorphism present. Dense desmoplastic stromal reaction seen. Some duct like structures were noted in focal areas. These findings were consistent with cutaneous metastasis of breast carcinoma as shown in figure 3.

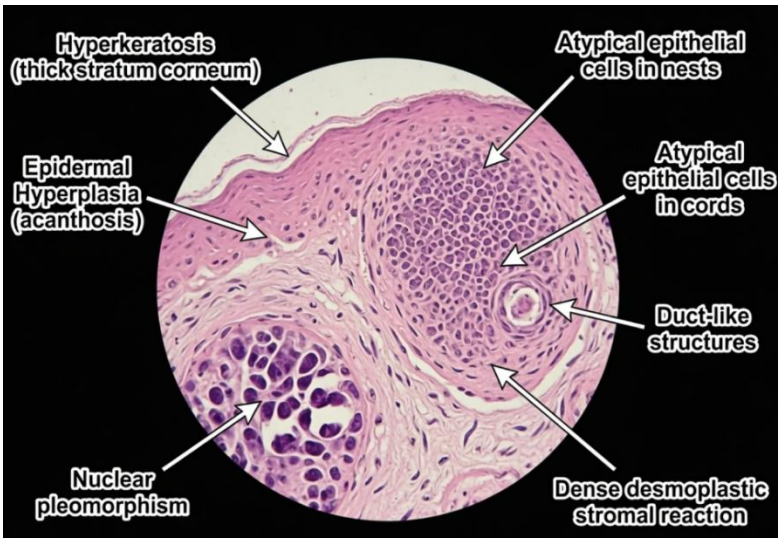

FIGURE 3 : HISTOPATHOLOGICAL VIEW

Differential diagnosis-

1. Hypertrophic scar
2. Lymphangioma Circumscriptum
3. Chronic lymphedema associated changes
4. Verrucous carcinoma
5. Marjolin ulcers
6. Cutaneous tuberculosis(lupus vulgaris)

Discussion

Our case demonstrates a rare verrucous, hyperkeratotic presentation of cutaneous metastasis at the mastectomy scar, contrasting sharply with the far more common papulonodular or inflammatory patterns (e.g., carcinoma en cuirasse, telangiectatic carcinoma) reported in breast cancer skin metastases. While most cutaneous metastases occur within the first two years post-treatment and typically present as firm nodules on the ipsilateral chest wall, your patient presented five years later with a painless, progressively verrucous plaque

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extending into the axillary fold mirroring the diagnostic challenges seen in late recurrences where skin lesions may be the sole sign of relapse.[5] Histopathologically, the presence of atypical epithelial cells in nests and cords with nuclear pleomorphism and dense desmoplasia confirmed metastatic adenocarcinoma, distinguishing it from benign post-surgical changes like hypertrophic scars or chronic lymphedema-related verrucous dermopathy, which lack malignant epithelial infiltration.[6,1,3]

In contrast to our study another study typically shows well-differentiated epithelium with blunt dermal projections and lacks the desmoplastic stromal reaction and glandular/duct-like structures seen in breast carcinoma metastasis.[7] The differential also included Marjolin ulcer (verrucous carcinoma arising in chronic wounds) and cutaneous tuberculosis (lupus vulgaris), yet the patient's history of radiation therapy, hormonal therapy (Tamoxifen), and the specific histologic features epidermal hyperplasia with hyperkeratosis overlying dermal nests of atypical cells with duct-like differentiation strongly favored cutaneous metastasis.[3] Unlike generalized cutaneous metastases that signify widespread disease and poor prognosis (often with <1 year survival), this localized verrucous recurrence at the mastectomy site may represent isolated local recurrence, underscoring the critical role of biopsy and immunohistochemistry in confirming diagnosis and guiding management.[8]

Conclusion

This case report illustrates a rare verrucous presentation of cutaneous metastasis from breast carcinoma at a mastectomy site, emphasizing the diagnostic challenge when malignant recurrence mimics benign post-surgical changes. The five-year delayed presentation with a painless, hyperkeratotic, verrucous plaque extending into the axillary fold contrasts with typical early papulonodular recurrences, highlighting that skin lesions at mastectomy sites warrant histopathological evaluation regardless of time elapsed since treatment. Histopathological findings of atypical epithelial cells in nests and cords with nuclear pleomorphism, desmoplastic stromal reaction, and focal duct-like structures confirmed metastatic breast carcinoma, distinguishing it from differential diagnoses including hypertrophic scar, verrucous carcinoma, Marjolin ulcer, and chronic lymphedema-associated changes. This case underscores the critical importance of maintaining a high index of suspicion for cutaneous metastasis in any progressive, indurated lesion at a mastectomy scar, even years after initial treatment. Early biopsy and histopathological confirmation are essential for accurate diagnosis, as cutaneous metastasis signifies disease recurrence and significantly impacts treatment planning, including systemic therapy, local control measures, and prognostic counseling. Immunohistochemical markers (ER, PR, HER2, GATA3, GCDFP-15) should be utilized to confirm breast origin and guide targeted therapy. Clinicians should recognize that varied morphological presentations of cutaneous metastasis require thorough investigation to avoid misdiagnosis and delayed treatment.

Reference

1. Prabhu S, Pai SB, Handattu S, Kudur MH, Vasanth V. Cutaneous metastases from carcinoma breast: The common and the rare. Indian Journal of Dermatology, Venereology and Leprology. 2009 Sep 1;75:499.
2. Bastard DP, Bollea-Garlatti ML, Belatti A, Puga MC, Hernández MN, Mazzuoccolo LD. Cutaneous metastases from breast cancer: an 8-year review of cases at a tertiary care hospital. Actas Dermo-Sifiliográficas (English Edition). 2019 Apr 1;110(3):206-11.
3. Nava G, Greer K, Patterson J, Y Lin K. Metastatic cutaneous breast carcinoma: a case report and review of the literature. Canadian Journal of Plastic Surgery. 2009 Mar;17(1):25-8.
4. Rehman S, Naveed MA. Skin metastasis in breast cancer patients; a case series. Journal of Cancer & Allied Specialties. 2020 Jan 5;6(1):307.

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5. Mukherjee R, Singh BK, Bhattacharjee H, Parshad R. Rare Presentation of Cutaneous Metastasis in Breast Carcinoma. Cureus. 2024 Dec 28;16(12).
6. Shrivastava N, Balasubramanian A. Cutaneous metastasis in breast cancer: a case series. Cureus. 2023 Jun 8;15(6):e40109.
7. Chraiet N, Zenzri Y, Bouaziz H, Sassi I, Guebsi A, Kamoun S, Rahal K, Mezlini A. Generalized cutaneous metastases of breast cancer: An uncommon presentation. Clinical Case Reports. 2020 Apr;8(4):667-71.
8. Mukherjee R, Singh BK, Bhattacharjee H, Parshad R. Rare Presentation of Cutaneous Metastasis in Breast Carcinoma. Cureus. 2024 Dec 28;16(12).