

Cutaneous Metastases in Breast Cancer

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Cutaneous metastases occur more often in breast cancer than in other diseases in women. Presentation often is ambiguous because the metastases can mimic other common processes (e.g., cellulitis, lymphedema). Accurate differential diagnosis identifies less obvious manifestations of progressive disease and allows for appropriate management. Although interventions are aimed at halting disease progression, cutaneous metastases indicate an incurable diagnosis. Treatment focuses on delaying progressive disease, controlling symptoms, and maintaining quality of life. The care of skin metastases evolves as the tumor spreads and more tissue destruction occurs. Skin management and topical interventions increase comfort, decrease distress, and create feelings of control in this population.

Metastatic cutaneous lesions are seen more commonly in breast cancer than in any other malignancy in women, exceeding 20% of all cutaneous metastases (Nava, Greer, Patterson, & Lin, 2009; Schwartz, Wiederkehr, & Lambert, 2004). Cutaneous metastases indicate that the underlying tumor has infiltrated into the skin, blood capillaries, and lymph vessels (Lund-Nielson, Muller, & Adamsen, 2005). The presence of skin metastases signifies widespread systemic disease and a poor prognosis (Hussein, 2010). Median survival time varies. A mean survival of 57.43 months for breast cancer with cutaneous only metastases was reported in a retrospective series by Hu, Chen, Lu, Wu, and Lan (2008). Median overall survival in metastatic breast cancer is about 36 months (Pal et al., 2008). Cutaneous breast metastases most commonly present on the chest wall. The abdomen, back, head and neck, scalp, and upper extremities also are common sites (Hu et al., 2008; Hussein, 2010) (see Figure 1).

Assessment of cutaneous metastatic disease can be perplexing because the clinical presentation appears similar to other skin maladies such as cellulitis or lymphedema (Schwartz et al., 2004). Patients present with a variety of symptoms ranging from firm, indurated skin to tiny, seed-like solid papules and large egg-sized lesions (Hussein, 2010; Nashan et al., 2009). Treatment is driven by two goals: (a) improving survival through gaining control of the disease and (b) optimizing quality of life and symptom management.

Case Study

S.M., a 65-year-old Caucasian woman, was diagnosed with T2N3M0, locally advanced, right-sided breast cancer with palpable supraclavicular and axillary nodes. Her tumor was hormone receptor negative and negative for HER2/neu oncogene overexpression. S.M. was treated initially with four cycles of neoadjuvant chemotherapy with doxorubicin and cyclophosphamide administered every two weeks, followed by four cycles of paclitaxel every two weeks. She subsequently underwent a right lumpectomy with axillary lymph node dissection, revealing 21 of 21 positive nodes with extensive extracapsular extension and nodal matting. Tumor size was 2.5 cm x 3.25 cm with clear margins. Following chemotherapy, S.M. received radiation to the right breast and axilla. After radiation, she started on capecitabine.

After three months of capecitabine therapy, S.M. presented for a follow-up appointment stating, "I just don't feel like myself." She described six days of breast symptoms, beginning with tenderness in the right breast and surrounding chest

wall and progressing to breast swelling and warmth. S.M. had noticed "skin puckering," but no palpable masses or nipple discharge. After two days of symptoms, S.M. had an appointment with her physical therapist for lymphedema therapy and was told that her symptoms were consistent with cellulitis. She contacted her oncologist, who scheduled an office visit and prescribed levofloxacin by telephone. By the time of her visit, S.M. had been taking her antibiotic for five days. She was afebrile, and her vital signs were within normal limits. On physical examination, S.M. had new palpable lymphadenopathy in her bilateral anterior cervical and supraclavicular chains. Her right breast had diffuse erythema, and the skin was thickened on medial and inferior aspects of the breast. The breast was tender to palpation, with 4 of 10 pain reported in her right breast, chest wall, and axilla. No warmth of the site was noted. S.M. had no palpable breast masses, nipple retraction, or discharge.

As cellulitis still was a concern and S.M.'s symptoms had not responded to levofloxacin, she was switched to clindamycin. A

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