

## FEATURE ARTICLE

# Cutaneous Metastatic Breast Cancer

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**B**reast cancer is the most commonly diagnosed cancer in women and the second leading cause of cancer deaths among women in the United States. Estimates for 2002 indicate that nearly 203,500 new cases of breast cancer will be diagnosed and 39,600 women will die from the disease (Jemal, Thomas, Murray, & Thun, 2002). Many women diagnosed with breast cancer will achieve a cure through surgery followed by adjuvant chemotherapy, hormonal therapy, or radiation therapy (RT). Some breast cancer survivors will develop locally recurrent disease defined as “any reappearance of cancer in the ipsilateral breast, chest wall, or skin overlying the chest wall after initial therapy” (Recht, Come, Troyan, & Sadowsky, 2000, p. 731).

One of the most distressing presentations of locally recurrent breast cancer is the appearance of cutaneous metastases. After melanoma, breast cancer is the most common cancer to metastasize to the skin (Mordenti, Peris, Fargnoli, Cerroni, & Chimenti, 2000). The presence of skin metastases is a daily, visible reminder of the disease. Disruption of the integumentary barrier can become infected and result in open, bleeding wounds that are difficult to control. The purpose of this article is to increase oncology nurses' understanding of the pathophysiology of cutaneous metastases, facilitate recognition of the various presentations of cutaneous metastatic breast cancer, discuss management of both the underlying disease process and skin lesions, and identify issues of psychosocial support for patients and their families throughout the continuum of illness.

Breast cancer is the most commonly diagnosed cancer in women and the second leading cause of cancer deaths among women in the United States. Many women diagnosed with breast cancer will achieve a cure with surgery followed by adjuvant chemotherapy, hormonal therapy, or radiation therapy; however, some breast cancer survivors will develop locally recurrent disease. Skin metastases are one of the most distressing presentations of locally recurrent breast cancer. The purpose of this article is to increase oncology nurses' understanding of the pathophysiology of cutaneous metastases, facilitate recognition of the various presentations of cutaneous metastatic breast cancer, discuss management of both the underlying disease process and skin lesions, and identify issues of psychosocial support for patients and families throughout the continuum of illness.

The skin is a common site for the spread of internal malignancies, and nearly half of observed skin metastases in patients with cancer are because of progression of breast cancer (Crosby, 1998). Cutaneous metastases can occur following breast-conserving treatment (BCT), which consists of lumpectomy followed by RT or mastectomy, even if postsurgical RT was delivered to the chest wall. Local recurrence in the skin of the treated breast is rare following BCT and dependent on many variables, such as nodal status or tumor size. In a study of 1,624 patients who underwent BCT, skin recurrence without parenchymal involvement was observed in 1.1% of patients (Gage et al., 1998). Local recurrence after mastectomy has a reported incidence of 6% (Roses, 1999). Approximately 90% of local recurrences appear within five years following mastectomy and nearly 100% occur by 10 years, although recurrences as long as 50 years after initial diagnosis have been reported (Recht et al., 2000).

## Pathophysiology

Cutaneous metastatic skin lesions are extensions of tumors to the skin, preferentially occurring in the skin overlying or proximal to the primary tumor. Most commonly, breast cancer metastasis to the skin occurs via direct extension or through vascular or lymphatic channels. Other mechanisms include iatrogenic implantation of malignant cells following a surgical procedure, such as mastectomy or reconstruction. The appearance of cutaneous metastases in breast cancer is generally a late sign, although cutaneous metastases may be the presenting sign of an undiagnosed, asymptomatic breast cancer. Cutaneous metastases of breast cancer generally are found on the chest, abdomen, and scalp; less frequently on the back, upper arms, and lower abdomen; and rarely on the buttocks, perianal region, lower extremities, and eyelids (Schwartz, 1995).

Several types of cutaneous metastases are unique to breast cancer. Carcinoma erysipelatoides is found generally in patients with inflammatory breast cancer and is the most common situation in which skin metastasis is the presenting sign of the underlying cancer. The lesions generally are rash-like, warm, tender, and erythematous, they often are elevated above the skin surface, and they usually have a distinctive leading edge (see Figure 1). The

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