## Care of Fungating Breast Wounds

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Four years ago, D.W., a 54-year-old woman, took advantage of the opportunity to receive a free mammogram. D.W. had not previously had a mammogram. The results revealed a highly suspicious left breast mass. A core needle biopsy confirmed invasive ductal carcinoma. At her followup visit to the breast clinic, D.W. refused to consider breast surgery of any type and was scheduled to begin chemotherapy treatments. However, she did not show up for clinic treatments and did not respond to repeated contacts. Since her diagnosis of breast cancer four years ago, she has not received any type of antineoplastic therapy for her disease. Yesterday, she presented to the emergency department with a complaint of pain and a "bad odor" from her left breast. Over time, D.W. noticed that her left breast was getting "harder" but only recently did it become painful and malodorous. She was admitted from the emergency department to the oncology unit for disease work-up, wound care, and initiation of antineoplastic therapy for breast cancer. The staff contacted the wound care nurse for a consultation about how to best manage D.W.'s breast wound.

## Nursing Assessment and Physical Examination

On assessment, the wound care nurse finds that D.W.'s entire left breast is hard and deep purple in color. In the center of the left breast is a wound that has "curled-up" edges, which the wound care specialist describes as having an open "cauliflower-like" appearance. She notes that the wound is friable and bleeds easily. Serosanguinous exudate is copious and malodorous. In addition to assessing the wound, the wound care specialist checks D.W.'s laboratory values for serum albumin and prealbumin levels, both indicators of

visceral protein status. The test results indicate that the serum albumin (2.5 g/dl) and serum prealbumin (10 mg/dl) are less than normal range. This is not surprising because D.W. had told the nursing staff that she had not been eating or drinking "properly" and had lost 25 pounds over the past year. Based on D.W.'s albumin and prealbumin results and weight loss, the staff nurse requests a nutrition consultation.

## **Etiology of the Problem**

When D.W. was diagnosed with breast cancer four years ago, the mammogram revealed a 2 cm mass in her left breast. Because D.W. refused all treatment, her cancer progressed and a fungating wound erupted on the breast surface. Fungating wounds occur in approximately 5%-10% of patients with metastatic cancer (Goldberg & McGinn-Byer, 2007). The appearance of fungating wounds may differ from patient to patient; however, they generally begin as small nodules, and as the tumor extends, they may open and develop a "cauliflower-like" appearance (Lloyd, 2008) (see Figure 1). Fungating wounds occur when malignant cells are not eradicated by antineoplastic therapies (Goldberg & McGinn-Byer). Infiltration of cancer cells block and damage tiny blood and lymph vessels, resulting in necrosis of the breast and skin tissue (Lloyd). A patient with a fungating breast wound also may develop local obstructions in the blood and lymph vessels, causing lymphedema (Collier, 2000). Fungating wounds usually have moderate to copious serosanguinous exudate, bleed easily, and may be painful and malodorous. Bleeding can occur because of the erosion of local blood vessels or because of tissue necrosis (Lloyd). The odor can result from the presence of infection, exudate, or devitalized tissue within the wound. These elements invite aerobic and anaerobic bacteria, which create the foul-smelling odor (Lloyd). Current topical treatment recommendations are to use a metronidazole preparation in a gel or spray form (Goldberg & McGinn-Byer).

Often, the wounds decrease in size with chemotherapy, radiotherapy, hormone therapy, surgery, cryotherapy, or laser therapy (Goldberg & McGinn-Byer, 2007) but usually are treated externally with wound care products that relieve pain and odor. The overall goal for care with fungating wounds is to use a combination of topical treatments. The treatments should provide absorption of drainage and odor control and be soothing to the patient. In addition, topical treatments should be nonadherent to the wound surface because the wounds generally are friable and painful. Therefore, the best option is a spray preparation because, although gels are soothing, their application may be painful to the patient. Gauze or drainage pads serve as good absorbent dressings for drainage over the contact topical treatment. In severe cases of bleeding or an exudative wound, an alginate dressing (highly absorbent and biodegradable dressings derived from seaweed) may be required (Collier, 2000; Lloyd, 2008). Wound care also includes avoiding tapes, especially on the wound or on the periwound skin. The entire dressing

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