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 follow-up 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...
Monitoring prealbumin levels at least once a week provides a good overview of a patient’s current protein calorie nutritional status and should be incorporated into the nutritional assessment for all patients with wounds (Collins). A normal serum albumin level is 3.5 g/dl or greater, and a normal serum prealbumin level is 16 mg/dl or greater (Beck & Rosenthal, 2002; Collins). Knowing and understanding the two laboratory values allow healthcare practitioners to determine the degree of protein calorie malnutrition and to initiate early nutritional intervention as needed. Improving a patient’s nutritional status has been shown to lower the risk of complications, decrease mortality, and improve wound healing in general (Beck & Rosenthal).

Management and Prophylactic Strategies and Outcomes

D.W. was hospitalized for two weeks. During her stay, several elements of care were implemented: wound care, chemotherapy, nutritional supplementation, and pain management. Her pain was managed successfully with a patient-controlled analgesia pump programmed to deliver hydromorphone hydrochloride 0.2 mg every 10 minutes. She also was started on a chemotherapy regimen and nutritional supplementation.

The staff was instructed to perform daily wound care, which consisted of cleansing the wound gently with normal saline and applying metronidazole through a spray pump. The wound then was covered with abdominal gauze pads that were held in place by a surgical bra with Velcro® closures. A surgical bra was comfortable for the patient and easy to use. The topical treatment was “cooling” for the patient and removed the embarrassing odor so the patient felt more comfortable with family and friends. The wound care nurse on weekly visits noted that the wound did not improve beyond no longer being malodorous. However, the staff and the patient were pleased with the current dressing protocol and continued to perform daily wound care together. Each time, the patient was allowed to take on more and more of the wound care responsibilities, such as cleaning the wound and applying the medication.

During her stay, D.W. and her 21-year-old daughter, who was studying to become a nurse, received wound care instructions from the wound care nurse through demonstrations and in writing. The staff nurses reinforced the teaching each time they changed D.W.’s dressings and had the patient and the daughter give return demonstrations of proper wound care. By the time of discharge, D.W. and her daughter were able to demonstrate that they could care for the wound independently. On discharge, the patient was given an ample supply of gauze for cleaning the wound, two bottles of normal saline, abdominal gauze pads, three surgical bras, and a prescription for the metronidazole spray. She also was provided with the contact information of the wound care nurse should she or her daughter have any questions. Some institutions have a “follow-up” phone call policy in which staff nurses call the patient and family a day or two after discharge. This policy allows the staff to check if the patient and family obtained the recommended prescriptions and to ascertain how they are coping at home.
Conclusion

The patient was made very comfortable during her hospitalization. The normal saline and medication were easy to use, and the patient experienced a cooling effect. The metronidazole removed the odor on contact, and the surgical bra provided the support she needed. The wound care nurse had the expertise required to make appropriate wound care recommendations to the oncology nursing staff. The recommendations helped the staff to keep the wound clean and the patient as comfortable as possible. The wound care regimen was easy for the staff and the patient to carry out on a daily basis. In addition to managing the care of the fungating wound, the role of the oncology nurse includes providing wound care education to the patient and family and offering emotional support. The care of the wound should be as simple as possible so that nurses can easily assist and encourage the patient and family to participate in their own care. Supplying the patient with dressing materials and giving clear and simple written instructions for the patient to follow at home are essential for compliance. Encouraging the patient to express her fears and concerns provides nurses with an opportunity to address the patient’s feelings of embarrassment and isolation (Lloyd, 2008). In addition, giving clear answers to questions and providing emotional and spiritual support adds to much-needed holistic care.

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References


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