

PALLIATIVE PEARLS

BY ENCLARA PHARMACIA

Managing Bleeding Fungating Wounds/Tumors **October 2016**

Patient Case

PH is an 86 year old female with metastatic breast cancer involving her liver and bones who was recently admitted to hospice. She resides with her daughter, who is her primary caregiver. A year ago, PH developed a fungating tumor at the site of her right breast cancer. It was originally treated with radiation, but began growing again over the past few months. PH's hospice nurse has noted during dressing changes that the wound is bleeding more easily, requiring pressure to make it stop.

What are fungating wounds?

Cancer cells proliferating just beneath the skin can break through the skin's surface to create a wound. These cells can originate from a local tumor or metastasize to a more distant site. The word "fungating" refers to a proliferative and ulcerating-type of growth. Proliferative lesions may progress to be shaped like "fungus" or "cauliflower", while ulcerating lesions are crater-like in appearance. Often lesions take on characteristics of both ulcerating and proliferating wounds, making them difficult to manage. Although rare overall, fungating wounds most commonly occur in patients with breast cancer, lung cancer, head and neck cancer, as well as melanoma.

What makes fungating wounds bothersome to patients/caregivers?

Fungating wounds are often foul-smelling with foul smelling with drainage and result in pain, bleeding, itching and tissue necrosis. Wounds of this type cause both physical and functional impairment, and often result in embarrassment, depression and feelings of self-consciousness.

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How should fungating wounds be managed?

Appropriate treatment and care for a wound is dependent on factors such as wound location, size and accompanying symptoms, such as odor, drainage, bleeding, pain, and necrosis.

Wound Dressing

The proper wound dressing can successfully hide the wound, and helps to alleviate pain, control foul odor, absorb exudate and minimize bleeding. Cleanse fungating wounds with normal saline or commercial wound cleaner, and irrigate the wound instead of swabbing the area to minimize bleeding.

- For **low exudate wounds**, low absorbency dressings such as hydrocolloids and semi-permeable films are preferred.
- For wounds with **moderate to high amounts of exudate**, the dressing options include alginate or hydrofiber and should be non-adherent.

Debridement

Debridement is the mainstay of treatment and serves to remove the dead and dying tissue, along with any bacteria present:

- **Surgical** debridement is not recommended as it can cause bleeding
- **Autolytic** debridement is performed with alginate and is preferred for moist wounds. Alginate dressings are dry when placed on the wound and then take the shape of the wound and become gel-like as they absorb wound exudate.
- **Enzymatic** debridement is performed using collagenase (Santyl®). Collagenase works to digest and remove necrotic tissue while sparing healthy or newly formed tissue. Both autolytic and enzymatic debridement can be used for moist wounds.

Odor Control

Malodor arising from infection can be treated with antimicrobials with **metronidazole** being the antimicrobial of choice. To control odor, topical application is preferred as wounds often have decreased blood supply that can make systemic (oral, IV) metronidazole ineffective. Topical application can be used continuously as needed to contain the odor. Instructions on application follows:

- Metronidazole tablets can be crushed and sprinkled directly on the wound twice daily. Tablets can also be crushed and added to sterile water and used to irrigate the wound,

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or gauze can be soaked in the solution and packed in the wound cavities. This is the most cost-effective option.

- Commercial metronidazole gel can also be used. Apply 1/8th of an inch thick layer directly on the wound (the gel should only be used if the wound bed is dry).
- Metronidazole can also be supplied as compounded 1% paste or 5% powder.

Charcoal dressings are another option to control odor. The charcoal within the dressing binds to molecules that cause bad odor, thereby preventing them from leaving the wound area. Medical grade honey may also be beneficial due to its high sugar content, helping to produce a hyperosmotic environment that inhibits bacterial growth. Caregivers can also place **coffee grinds, kitty litter, dryer sheets or vanilla extract** in the room or under the bed to further control odor.

Pain

Patients with fungating wounds may experience pain associated with their tumor and wounds, as well as pain that originates from concurrent illnesses. It is important that a full pain assessment be performed to identify the cause of pain and best approach to management. If pain is **neuropathic**, a tricyclic antidepressant or anticonvulsant is recommended. If pain is **nociceptive** in nature, opioids or corticosteroids are recommended. To prevent pain during dressing changes:

- Administer a dose of systemic opioid 30 minutes prior to a dressing change. Non-adherent dressings are recommended, as well as application of topical anesthetics such as 2% lidocaine or EMLA cream applied 30-60 minutes prior to wound care.
- Additional strategies include relaxation, aromatherapy, music therapy or meditation to provide distraction for the patient.
- If pain arises from cleansing the wound, irrigate with warm saline solution as opposed to swabbing with gauze.

Bleeding

Bleeding often occurs due to tumor cells eroding blood vessels; however, some patients may also have coagulation issues that are independent of the wound. Extensive laboratory testing and management with systemic hematologic agents or transfusions are impractical in hospice; therefore it is best to prevent bleeding before it occurs whenever possible.

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- Due to the fragility of the tissue of fungating wounds, dressing removal and changes should be gentle. For dressings that appear stuck to tissue, prior to removal, soak the dressing in warm normal saline to reduce trauma and pain associated with its removal. **Non-adherent dressing** is preferred.
- **Coagulants** such as gelatin sponges and thrombin may be useful when placed over actively bleeding wounds and held in place with an appropriate dressing. Topical thrombin when combined with gel foam helps to control mild to moderate bleeding within 10 minutes. Small areas of bleeding can be treated with silver nitrate sticks. When using these topical medications, ice can also be applied to the area of the wound while pressure is applied.
- **Hemostatic agents** such as tranexamic acid or aminocaproic acid can be placed topically by soaking gauze with the parenteral formulations and applying gauze over the area of bleeding with pressure for 5-10 minutes. These products can be used in this manner up to 4 times a day for 7-10 days.
- **Sucralfate paste** can be made by crushing two 1-gram tablets in 5mL of water soluble gel and applied topically 1-2 times daily.
- **Epinephrine (1:1000)** can be used by applying a piece of epinephrine--soaked gauze with pressure to the wound for 10 minutes. Note that epinephrine may cause further ischemia and necrosis after prolonged use.
- **Oxymetazoline (Afrin®)** can also be used due to its vasoconstricting properties on areas of minor bleeding. For best effect, spray on gauze and then apply the gauze directly to the wound with pressure.

Pharmacist Assessment and Recommendations

A number of different options for treatment of PH's wound were discussed. The wound produced minimal exudate and bleeding was characterized as minor. Odor was already managed by kitty litter placed under the bed. Management suggestions were focused on appropriate wound dressing and "as needed" control of bleeding, as well as pre-medication to treat pain.

Recommendations to reduce bleeding and managing fungating wound symptoms:

- Dressing/Debridement: A hydrocolloid dressing was chosen and a decision was made to opt out of debridement measures at this time.
- Bleeding: Epinephrine (1:1000) was felt to be potentially effective, however the nurse was concerned that there could be an increased chance of rebound bleeding. The sucralfate paste might be too messy and difficult to manage in this case. Oxymetazoline (Afrin®) was recommended as the best choice for dressing changes based upon its ease of use and availability.

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- Pain: Extended-release morphine therapy 30 mg BID was already in place for scheduled pain control. Additional instructions were added to PH's breakthrough morphine regimen for a scheduled dose of 5mg provided 30 minutes before dressing changes.

Summary

The addition of Afrin® to the dressing changes minimized bleeding and made dressing changes easier and less traumatic to the patient. The scheduling of morphine 30 minutes prior to dressing changes also prevented pain associated with wound care.

For additional information on this topic, please review these references:

- Enclara Pharmacia's On Demand Educational Webinar, "Skin and Wound Care at the End of Life". Click [here](#) to log in.
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