

Palliative Wound Care: Comfort by Eliminating Odor and Excessive Exudate

Catherine De Meyer, RN, MA
Nursing Department
General Hospital St. Jozef
Ostend, Belgium

Introduction

Patients with malignant wounds have many complex and difficult obstacles to overcome. Wounds usually present as ulcerating or fungating. Some of those wounds will never heal and the care for these wounds is focused on the discomfort the patients suffer. For those patients that receive radiotherapy, which aims to destroy malignant cells, the skin is damaged in the process. Both types of wounds are very common in palliative wound care.

The principles of managing patients in a palliative care setting should aim to maximize healing while taking into account the specific problems related to wound etiology. The specific problems are the profound psychological impact on the patient and his/her family. This presents many challenges to those responsible for managing a patient's care. In this paper we will focus on the problems of odor and exudate management without losing the attention for the psychological aspects.

Patients Assessment

Thorough assessment will help to identify the specific problems affecting the patient, family and friends and will allow them to prioritize from the patient's perspective. The following criteria should be considered when planning care:

- Clinical and social history
- Cause and stage of disease
- Treatment and prognosis
- The patient's and family's knowledge of the diagnosis
- Nutritional assessment
- Psychological impact of the wound on the patients and care-givers
- Impact of the wound on quality of life
- Availability of resources and social support network.

General Management Principles

These wound include:

- The identification of realistic treatment objectives that promote the patient's quality of life.
- Effective pain management and symptom control to promote patient comfort.
- The prevention of any further wound deterioration or complications.
- The provision of a dressing that is able to control the bio-burden, odor, exudate production and is aesthetically acceptable.
- The need for psychological and spiritual support to promote self-esteem and patient acceptance.

Special Management Principles

These will vary depending on the cause and stage of disease and the location and severity of the wound, but would include some or all of the following:

- Control of wound odor
- Management of excessive exudate production
- Prevention and control of hemorrhage
- Care of the skin surrounding the wound
- Care of the irradiated skin
- Prevention and control of wound infection

Control of Wound Odor

Fungating wounds can be defined as lesions that are products of cancerous infiltration of the epithelium, resulting in a protruding, nodular growth which is prone to infection, bleeding, and malodorous exudate.^{1,2}

Malodorous wounds often cause psychological distress for patients and will often lead to feelings of loneliness, depression, repulsion and social isolation. These psychological problems will certainly affect the patient's quality of life and may well actually delay the process of wound healing, although further studies in this area need to be carried out.³

The most common causes of odor associated with malignant wounds are the presence of necrotic tissue, fistula formation into the bowel and anaerobic wound infection. The main source of malodor associated with this type of wound derives from the compounds putrescine and cadaverine which are extremely offensive and difficult to disguise.³ Odor may be controlled using a variety of different approaches, including wound debridement and topical agents.

Wound debridement may be a quick method of reducing odor, but needs to be carefully evaluated as the potential risk of hemorrhage is great. We found that the best way to debride would be to soften the necrotic eschar in conjunction with controlling the presence of micro-organisms.

Topical agents can be used to control the overgrowth of micro-organisms which are responsible for the odor, the excess inflammation and accompanying (over)production of exudate. Examples are silversulfadiazine (Flammazine®), nitrofurazone (Furacine®) and polyvidone-iodine (IsoBetadine®). These products do work for a while but have to be changed quite often and do not eliminate bacterial colonisation or infection.⁴

Of all the products polyvidone-iodine is the most active against fungi, but it gets inactivated fast in the presence of exudate and necrotic material.⁵ When these agents are used during a short period of time the side effects are not important, but when these agents are used for several weeks or months then the side effects should be taken into account.⁶

Metronidazole can be given topically and systemically but when using for longer periods, side effects are to be taken into account.⁴

The Use of Glycerine Dressing

Glycerine in concentrations above 25% is known to have antibacterial, antiviral and anti-fungal capabilities. These capabilities are used for the preservation of cadaver skin (allografts) which are taken 12 hours after the death of the donor and are always containing bacteria and fungi.⁷

After a few days all bacteria, viruses and fungi are killed by the glycerine. Glycerine is not an antiseptic, because it takes considerable time before micro-organisms are killed, but it is very gentle for the skin and since it is present in most daily used creams, it is non-allergic. If we were able to use the glycerine in a dressing, then we could not only dress the wound but also control the microbial environment. Controlling the microbial environment will also lead to less inflammation and consequentially in less exudate and no odor.

Elasto-Gel™ (Novogel®) is a hydrogel sheet dressing that consists of 65% glycerine. The dressing is able to absorb 4 times its own weight in wound exudate. It does not stick to the wound and is easy to apply. We continued to use this dressing on fungating wounds with a very positive response from the patients and their family. The odors do disappear after 2 to 4 days and the load of micro-organisms do decrease due to the glycerine that leaks slowly in the wound. The intact surrounding skin is not effected by the glycerine, on the contrary, it rehydrates the cracked or irritated skin. The inflammation diminishes and also the production of exudate and the pain. In the conditions where the amount of wound exudate could not be managed with the glycerine dressing alone, an alginate was used. The dressing is also used in 2nd degree burn wounds and makes it therefore the ideal dressing to treat irradiated wounds.

Conclusion

Complex wounds like the ones in palliative wound care need our special attention. Sometime the usual answers do not apply in these cases, therefore we should look for the best possible alternative. After trying a lot of good dressings, we believe that **Elasto-Gel™ (Novogel™)** is the better choice in these complex wounds.

The patient and his social environment do not have to cope with offensive odors, leaking bandaging, infection and painful dressing changes. We believe that this is an important step forward in the quality of life struggle of the wounded palliative patient.

¹ FOLTZ, A. *Fungating and ulcerating malignant lesions: a review of the literature.* Journal of Advanced Nursing, Vol. 7, No. 2, 1980, p. 8-13.

² FITZGERALD, V., SIMS, R., *A positive approach.* Community Outlook, November, 1987, p. 18-21.

³ VAN TOLLER, S. *Invisible wounds: the effects of skin malodorous.* Journal of Wound Care, March, Vol. 3, No. 2, 1994, p. 103-105.

⁴ HAMPTON, J.P., *The use of metronidazole in the treatment of malodorous wounds,* Journal of Wound Care, 1996, October, Vol. 5, No. 9, p. 421-425.

⁵ GILCHRIST, B., *Should iodine be reconsidered in wound management?*, Journal of Wound Care, 1997, March, Vol. 6, No. 3, p. 148-150.

⁶ HOEKSTRA, M.J., *De invloed van glycerine op de huid en wond.* WCS Nieuws 1996, Jaargang 12, nr.4, p. 48-51.

⁷ MACKIE, D.P., *The Euro Skin Bank: Development and Application of Glycerol-Preserved Allografts.* Journal of Burn Care 1 Rehabilitation, 1997, (January/February) Vol. 17, No. 1, Part 2, p. s7-s9.