Management of malignant wound: nursing perspective

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Introduction

Although there are rapid advances in medical technology, management of malignant wound is still a great challenge. Patients living with malignant wounds suffer from devastating effect on their physical, psychological and social status, as well as negative impact on their families and carers. It requires not only a holistic approach in assessment and care but also a sensitive approach to ensure that the caring is realistic and acceptable to patient and carer.

Most malignant ulcers will not heal. The few exceptions are the malignant skin ulcers at the initial stages, when managed by aggressive medical intervention, such as surgery, radiotherapy, or chemotherapy. The nursing perspective of managing unhealed malignant wound will focus on ‘caring’ rather than ‘curing’. Ther goals of malignant wound management are symptom control and to enhance patient’s quality of life as much as possible.

Effective wound management requires the collaboration of members of the multidisciplinary team, comprehensive skill and knowledge in wound care, appropriate selection of dressing materials, sensitivity to the patient’s condition and needs, and creativity in tackling individual patient’s problem. With good management of malignant wounds, palliative care nurses can contribute to alleviation of suffering of the patients and enhancement of their quality of life.

The impact of malignant wound

Although malignant wounds occur more frequently in advanced cancer, it is possible for patient to live for many more years with a malignant wound if the disease is localized. Malignant wound frequently has a combination of neovascularization, necrosis, and inflammation leading to pain, bleeding, malodour, massive exudate, and infection. It can cause panic if massive bleeding occurs. The bulky dressing materials, the malodour, the soiled clothes (due to leakage of blood or exudates from wound) or the site of wound (e.g. breast or penile wound) may cause loss of dignity, altered body image, embarrassment and helplessness. The most adverse effect of malignant wound is being a constant signal to persistently remind the patient of the progression of the malignant disease. The patient’s life will be taken over by those problems and normal social activities cannot be maintained. Therefore, apart from the adverse symptoms, patient may also suffer from depression, withdrawal, and social isolation. These severely affect patient’s physical, psychosocial, and spiritual well-being. It is also a source of distress to his/her family and carers.

Management of malignant wound

A holistic assessment is necessary before setting the care plan for the malignant wound. It requires a sensitive approach to recognize 1) the impact of the wound on the patient as well as his/her family or friends, including the emotional and social aspects, the living environment, self-care abilities, and support system; 2) the symptoms from the wound including pain, malodour, bleeding, exudate, and evidence of infection; 3) the wound condition including site, size and depth, type of tissue (necrotic, slough, granulating, epithelial tissues), and progression; and 4) any associated problems such as condition of surrounding skin, allergic reaction to dressing or topical agents, functional impairment, and nutritional problem.

The management of malignant wound must include both symptom control and psychological support to patient and his/her family. The general condition of the patient also affects the goals of care. When the patient is at end-of-life, the goal of care will focus on comfort, pain control, and prevention of bleeding so that the frequency of wound dressing will be less. If death of patient is not imminent, the goal of care will focus on maximizing patient’s function by controlling wound infection, exudates and malodour, so that the frequency of wound dressing will be more.

Effective wound management requires an understanding of the wound problem and the concern of patient.

Bleeding

Malignant wounds are predisposed to bleeding as the wound surface is always friable. Spontaneous bleeding also occurs when the tumour erodes the blood vessels and may be compounded by decreased platelet function. Bleeders in wounds are caused by vascular disruption from necrosis, and bleeding may occur during removal of adherent dressing (e.g. dry gauze) from the wound. Wound infection and anticoagulant therapy may also aggravate the bleeding problem. To reduce bleeding, preventive measures are important. Using non-adherent dressings and cleansing by irrigation instead of swabbing will reduce the risk of traumatic bleeding from the wound. Soaking of adherent dressing before removal is also necessary for prevention of tearing the friable surface of the wound.
Haemostatic dressing (e.g. Calcium alginate) or Sucralfate paste (Sucralfate 1G mixed with 2-3 ml K Y jelly) are options to control bleeding by maintaining a moist wound environment and promoting clotting. Applying gentle pressure to the bleeding point can stop the bleeding usually. When bleeding is too massive to be stopped by gentle pressure, application of 1:10000 Adrenaline soaked gauze with pressure can be used as an emergency measure to control bleeding. A dark coloured towel (e.g. green towel) can be placed over the dressing pads to reduce the scare of the bloody scene. Oral antifibrinolytics (e.g. Transamime) is also effective in reducing bleeding. If bleeding cannot be controlled effectively by the above measures, diathermy, radiotherapy or embolisation may be considered.

**Wound Infection**

As the barrier function of skin is destroyed, wounds are vulnerable to infection. Superficial infection can be indicated by either two of the five following symptoms: 1) increased exude in gauze (e.g. green colour), 2) malodour, 3) serous to purulent exudate, 4) erythema or edema, or 5) increased tenderness around the lesion. Systemic infection is indicated by fever or increased white blood cell. Wound infection is also interrelated with other problems such as pain, bleeding, malodour, massive exudates, rapid extension of wound, increase of slough and necrotic tissue.

**Wound cleansing** is an important measure to prevent and control wound infection. Use of antiseptic (e.g. Hibitane, Betadine) is an option, but some patients find Betadine irritating and painful. Reduction of slough and necrotic tissue may reduce the colonization of bacteria in wound bed. When wound infection is suspected, occlusive dressing (e.g. Tegaderm, DeoDERM CGF) must be avoided to minimize the rapid growth of bacteria in the moist and warm environment so produced. Antiseptic / antibiotic impregnated paraffin gauze (e.g. Inadine gauze, sofrafutile) or topical antibiotics (e.g. Flagyl gel, Silver Sulfadiazine) may be sufficient to control superficial infection. Systemic antibiotics are usually useful in controlling wound infection. The use of honey (e.g. Manuka honey) is also an alternative in managing wound infection.

**Malodour**

Malignant wounds carry a high risk of wound infection, especially with anaerobic or aerobic organisms. Anaerobic and aerobic organisms thrive in necrotic tissue or purulent exudates and may lead to malodour.

Keeping the wound clean and use of topical or systemic antibiotics to reduce anaerobic or aerobic organisms can reduce the malodour from the wound. If slough or necrotic tissues are presented, one can use autolytic debridement (e.g. Hydrogel – Intrasite gel / DuoDERM gel) rather than surgical debridement for reducing the risk of bleeding. Activated charcoal dressing (e.g. Actisorb plus, Lyoform C, CarboFlex) can help to absorb malodour. Applying live yoghurt or honey to the wound is also an alternative. To control the environment odour, one can consider using commercial deodorizers or bowls of vinegar, vanilla or coffee. Fragrances and perfumes often produce mixed odour that is often poorly tolerated by patients.

**Exudate**

Massive exudate can result from wound infection or wound inflammation. Sinus or fistula in the wound should also be ruled out. The use of stoma bag can contain the massive exudate if adhesion on flat surface is possible (Fig 2). If sinus or fistula is present and communicate with secretory glands, hyoscine may be useful to reduce the amount of exudate. Wound infection, as a cause of exudates, should be controlled. For large volume exudate, high absorbent dressing such as calcium alginate (e.g. Sorbalgon, Kaltostat, SeaSorb), hydrofibra (e.g. Aquacel), or foam dressing (e.g. Lyoform) may be useful. The use of topical or systemic steroids or NSAID may also reduce exudate by reducing inflammation. Application of skin barrier, barrier ointment or hydrocolloid (e.g. Incare, DeoDERM CGF, Comfeel plus) protects the surrounding skin from maceration and excoriation due to massive exudate.

**Pain**

Malignant wound pain may be due to 1) exposure of nerve endings, 2) pressure on nerves or other structure or 3) wound infection. Pain may also be induced by use of some dressing products e.g. Betadine may be irritating and painful; or the cleansing procedure itself, especially when the dry gauze adheres to the wound. Pain is also aggravated by patient’s anxiety.

Pain can be controlled by use of appropriate analgesic and non-adherent dressing. For dressing induced pain, skillful dressing technique (e.g. cleansing by irrigation rather than swabbing) and reducing the frequency of dressing change must be considered. To prevent pain during dressing procedure, one can give pre-medication one hour before. Wound infection should be controlled if possible. The use of relaxation, distraction or visualization to reduce anxiety or stress of patient is also an alternative to control pain.

**Cutaneous Irritation**

Cutaneous irritation is a creeping or intensive itching sensation attributed to the activity of the tumour, particularly in inflammatory breast disease and cutaneous infiltration. It is generally not responsive to antihistamines. When irritation occurs,
allergy to dressing or topical agent must be excluded and immediate removal of allergen is necessary. Dryness of the skin may increase the itching sensation but can be relieved by application of moisturizing cream. When anti-histamines are not effective, one may consider NSAID or topical steroids for reducing inflammation. Transcutaneous Electrical Nerve Stimulation (TENS) may be useful for temporary relief of irritation. Hormonal therapy or palliative chemotherapy may relieve itching from the malignant wound by reducing tumour activity.6

Psychosocial Aspect

Psychosocial care of patient and family is also important to reduce the distress. The disgusting appearance or malodour causes patient to withdraw from social activities. We should avoid the use of bulky dressing pads and keep the outer dressing clean and dry without malodour. Improving the outer appearance of patients by wearing loose fitting coloured clothes helps to disguise the malignant mass or dressing. All these measures encourage them to continue their normal social activities and maintain their psychological well-being.

To improve patient’s self image is another important aspect of psychological care in nursing. One needs to assess patients’ perception of body image carefully and encourage patients to verbalize their feeling and concern. Active listening with non-judgmental attitude and being acceptance and supportive encourage patient to express. We should encourage patients to resume normal activity if possible and give practical advices e.g. dress, control malodour, and use of cosmetic devices. Continuous support and positive reinforcement will help patients to sustain their effort in improving the body image. Enhancing patient’s acceptance of self and reinforcing own personal value help patient to face the distress inflicted by the physical disfigurement. Family members should be educated in order to promote their understanding and participation in care, which is valuable to patient.

Conclusion

Managing malignant wound is complex and challenging. Effective symptom control and psychological care contribute to alleviation of suffering of patients and enhancement of their quality of life. A holistic and sensitive approach in assessment and care is necessary and the care plan must be realistic and acceptable to patient and carer. The general condition of the patient in different stages of illness also influences the goal of care in managing the malignant wound.

References