

Nursing of A Non-Hodgkin's Lymphoma Patient with A Facial Malignant Fungating Wound

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Received: February 24, 2021; Accepted: April 09, 2021; Published: June 21, 2021

ABSTRACT

Malignant fungating wounds are severe skin lesions caused by any primary tumor, causing patient suffering and disturbing their family members. In this article, we summarize the experience of nursing a patient with non-Hodgkin's lymphoma complicated with a facial malignant wound. Initially, a chemotherapy regimen was formulated as the main treatment for the patient. Throughout the patient's treatment course, we evaluated the patient holistically, conducting debridement, anti-infection,

and drainage management under the guidance of moist wound healing. Throughout the entire process, psychological nursing and health education were provided to the patient and family. Eventually, the patient's wound symptoms were well controlled, and the wound healed completely.

Key words: Anti-infection, dynamic assessment, exudate management, malignant fungating wounds, nursing care

Introduction

Malignant fungating wounds (MFWs) are skin lesions that occur from infiltration of the skin by local invasion of a primary tumor or by metastasis from another site.^[1] The wounds involve the surrounding tissues, vessels, and lymph nodes and further progress into sinuses or fistulas.^[1-3] These wounds originate from all tumor types and appear anywhere in the body with a fungal, cauliflower-like or ulcerative appearance. MFWs occur in 5% to 10% of patients with cancer^[4] and are mainly characterized by malodor, exudate, bleeding, pain, and surrounding skin lesions.^[2,3] In addition to causing the abovementioned physical discomforts, these symptoms may result in body

image changes and subsequently cause low self-esteem, fear, depression, and other negative emotions in patients, severely influencing the quality of life of patients.^[5,6] Non-Hodgkin's lymphoma (NHL) is a common malignancy that is also known as a group of heterogeneous diseases originating from lymph nodes or other lymphoid tissues. In recent years, the incidence of NHL in China has been increasing, which seriously threatens human physical and psychological health. This article reports the nursing care of a male patient with NHL with a facial MFW and describes the treatment and nursing care methods in detail to provide a reference for clinical practice.

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Cite this article as: You M, Zhang S, Ma X, Liu H, Lu Y, Li Y. Nursing of a Non-Hodgkin's Lymphoma Patient with a Facial Malignant Fungating Wound. *Asia Pac J Oncol Nurs* 2021;8:581-5.

Access this article online

Quick Response Code:



Website: www.apjon.org

DOI:
10.4103/apjon.apjon-2119

Case Report

A 56-year-old man developed two red painless nodules on the left face in January 2018. Then, he went to a street stall to clean the nodules with soapy water and prick the nodules, which caused the nodules to rupture and the area of skin rupture to gradually increase with yellow purulent exudate oozing out. The patient applied traditional Chinese medicine to the wound, but no effect was achieved. Instead, the wound deepened and expanded constantly. In June 2019, the facial wound was biopsied, and the pathological analysis revealed NHL. Then, he underwent chemotherapy (cyclophosphamide + pirarubicin + vincristine + prednisone + etoposide, 21 days a cycle). During this time, the wound therapists in our department consulted with the patient to develop and implement a plan of care for MFWs.

Assessment

Wound assessment

Wound assessment included the location, appearance, size, exudate, odor, pain, bleeding, surrounding skin, and other related symptoms. Thereinto, wound appearance is represented by the red–yellow–black color and the proportion of various tissues; the size is expressed by length \times width; the exudate is quantified by the quantitative method proposed by Mulder^[7] and the odor is assessed by odor indicator of the TELER system.^[8] The first assessment was as follows: wound location, the left face; size, 17 cm \times 13 cm; underlying tissue, covered by 100% black eschar with high exudate under the crust; odor, Grade 3; and surrounding skin, dark red without pain or bleeding [Figure 1].

Psychological assessment

Festering wounds may cause a change in body image in patients, and high exudate and malodor accompanied by



Figure 1: Wound appearance on day 1 (on admission)

wounds may lead to low self-esteem and social isolation.^[9] Therefore, we evaluated the psychological status of the patient using a distress thermometer (DT)^[10] as a screening tool for rapid recognition of psychological distress, as recommended by the National Comprehensive Cancer Network (NCCN). Every time he was hospitalized, the patient marked the number that best matched the average distress level over the past week. NCCN recommends that when a patient's DT ≥ 4 , he/she should be referred to a professional psychologist for further evaluation and treatment. The patient's DT level was evaluated as 2 for the first time. For maintaining and improving his mental health, during the care process, we listened to the patient patiently and encouraged him to talk about the impact of the wound. Then, we explained the current treatment methods to the patient with attention given to points regarding diet, bathing, and going out, such as appropriate clothes and decorations in daily life to promote his appearance. In addition, we showed the patient pictures of wound improvement at each stage to enhance his confidence.

Nursing

MFW is a special kind of chronic wound. A systematic and structured chronic wound management method was adapted by the International Advisory Board on Wound Bed Preparation 2003.^[11] It is recommended that all chronic wounds should be treated according to the TIME principle: tissue debridement (in all cases except arterial ulcers), infection control, moisture balance, and edges of the wound.

The removal of bacteria colonization and necrotic tissue from the wound surface by cleansing and debridement is the premise of anti-infection treatment. A study of 154,664 patients with 312,744 wounds showed that consistent debridement at intervals of 1 week or less resulted in significantly faster healing and a 70.8% overall healing rate.^[12] There are several different types of debridement: surgical, autolytic, enzymatic, and biologic.^[13] For the patient, we combined surgical and autolytic debridement according to the wound conditions. The following provides specific steps. Wet gauze with normal saline (NS) was applied externally for 30 min to soften the black eschar. Conservative surgical debridement was used to clear the floating eschar and the parts of the eschar that were easy to remove. Autolytic debridement was performed with a hydrogel functional dressing for tightly bonded eschar. The second assessment was as follows: size, 17 cm \times 13 cm \times 1 cm; underlying tissue, covered by 75% red tissue and 25% black necrotic eschar; exudate, high; odor, Grade 4; bleeding, slight; and surrounding skin, dark red [Figure 2].

Silver dressings can control bacteria colonization, effectively reducing infection and the biological load of

the wound and promoting wound healing.^[14,15] In addition, the safety in use of silver has been verified.^[16] As a result, several cotton balls with NS were used to wipe the wound after debridement and a hydrofiber with silver dressing was used to cover it.

It is an important part of wound care to maintain dynamic moisture balance under the guidance of moist wound healing.^[17] Functional dressings commonly used to exudate management of wounds include hydrogel, hydrofiber, alginate, and foam.^[18] In this case, a hydrofiber with silver dressing was selected to fight infection while locking up part of the wound exudate. Afterward, a foam dressing was necessary to further cover and absorb the overflowing exudate, and care was taken to ensure that it was well fixed. The dressings should be changed every 2 days, with an appropriate selection of dressings depending on the dynamic changes of the wound conditions after each assessment.

On day 13 of dressing changes, the patient developed bone marrow suppression and facial edema after the second cycle of chemotherapy. Afterward, the wound therapists found a new nodule in the process of dressing changes. The assessment was as follows: size, 13 cm × 17 cm × 1.5 cm; underlying tissue, covered by 50% red tissue and 50% yellowish-white necrosis tissue; exudate, high and significantly increased; odor, Grade 3; bleeding, slight; and surrounding skin, dark red, a red nodule protruding from the first prick location [Figure 3]. During this period, the patient was given a single room as a form of protective isolation and close body temperature monitoring was performed. We adjusted the frequency of dressing changes to once per day to prevent infection and communicated with the doctors. The patient was administered therapy to increase the number of leukocytes, and the chemotherapy regimen was adjusted to dexamethasone + ifosfamide + cisplatin + etoposide (21 days a cycle).

On day 20 of dressing changes, the edema of the wound IV degree completely subsided, and routine blood examination returned to normal. The assessment was as follows: size, 10 cm × 10 cm × 0.5 cm; underlying tissue, covered by 50% yellow tissue and 50% red tissue; exudate, moderate; odor, Grade 4; and surrounding skin, dark red without pain or bleeding. The wound condition was better than before [Figure 4]. On day 26 of dressing changes, the assessment was as follows: size, 10 cm × 10 cm; underlying tissue, covered by 25% yellow tissue and 75% red tissue; exudate, moderate and less than before; odor, Grade 4; surrounding skin, dark red; and nodules, disappeared [Figure 5]. On day 39 of dressing changes, the following observations were noted: size, 7 cm × 5 cm;



Figure 2: Wound appearance on day 1 (after the first debridement)



Figure 3: Wound appearance on day 13



Figure 4: Wound appearance on day 20

underlying tissue, covered by 100% red tissue; exudate, low; odor, Grade 5; and surrounding skin, dark red [Figure 6]. On day 55 of dressing changes, the following observations

were noted: size, 1 cm × 2 cm; underlying tissue, covered by 100% red tissue; exudate, low; and odor, Grade 5 [Figure 7]. On day 60 of dressing changes, the wound almost healed [Figure 8]. At present, the patient's facial wound has fully recovered [Figure 9].

In addition, we provided education and support to family members in a variety of ways. It is essential to encourage family members to participate in dressing changes and to explain the method, process, dressing selection, and matters requiring attention during dressing changes. Before the patient was discharged, we had given the family members an operation manual for dressing changes. In the process of patient- and family-concerned care, we can rely on Internet platforms, such as WeChat, to keep in touch with patients and their families and to follow-up regularly. Using these methods, we can understand more about the dynamic changes of the wounds to provide professional guidance in a timely manner to address the problems encountered in the process of home care.

Discussion

It has been reported that the most common origin of MFWs is breast carcinoma, which causes up to 62% of MFWs, followed by head-and-neck carcinoma, which causes 24% of MFWs.^[19] Although maxillofacial lymphoma is less likely to cause MFWs, its low incidence and superficial location may make patients ignore it and treat it as a facial furuncle, ultimately resulting in delayed treatment. In this case, it had been 18 months since the patient's red nodules appeared when he came to the hospital. Substandard treatment also resulted in the ulceration area of the wound expanding, which increased the difficulty of subsequent care. This finding suggests that public education on the early diagnosis and treatment of cancer still needs to be strengthened.

The underlying causes of MFWs involve many intractable-related symptoms and MFWs cause devastating impacts on the quality of life for patients with advanced cancer.^[20] Therefore, it is necessary to make the best



Figure 5: Wound appearance on day 26



Figure 6: Wound appearance on day 39



Figure 7: Wound appearance on day 55



Figure 8: Wound appearance on day 60



Figure 9: At present, the patient's facial wound has fully recovered

of multidisciplinary care. The case demonstrates the multidisciplinary collaboration in wound management, including standard antitumor treatment formulated by doctors, comprehensive evaluation and screening conducted by nurses, and professional wound care provided by wound therapists and potential psychosocial support. Thus, the physical and mental suffering of the patient was alleviated and a good treatment result was obtained therewith.

Care for MFWs is a long and tough process; thus, family members must provide supportive care.^[21] Consequently, family education and support are also the key points of malignant wound care. In this case, we took into account the stress and demands of the family members during home care, so we taught them the knowledge and skills of wound management before discharge. Furthermore, we provided continuity of care in various ways, which, on the one hand, reduced the burden of the family members, and, on the other hand, made use of the role function of them in the whole course of wound care.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for their clinical information to be reported in the journal. The patient understands that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

The corresponding author, Prof. Yuhan Lu, is the editorial board member of the journal.

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