

Malignant Neoplastic Wounds: Clinical Management Performed by Nurses

ORIGINAL

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Abstract

Objective: Investigate the clinical management of patients with neoplastic wounds by nurses.

Methods: This is an exploratory study, with qualitative approach, conducted in August 2014, with ten clinical nurses of a philanthropic hospital that provides care to patients with advanced cancer. Data were collected through semi-structured interviews and data analysis was performed using the Minayo's Thematic Analysis Technique, which enabled the construction of one category and four subcategories.

Results: The nurses' knowledge on the clinical management of wounds is weak and has many weaknesses involving patients with advanced cancer.

Conclusion: One evidenced the need to invest in continuing education and implementation of protocols that support greater autonomy of nurses in decision-making, ensuring legal support to these professionals to improve care for people with neoplastic wounds.

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Introduction

The malignant neoplastic wounds are cutaneous infiltration of cancerous cells, which generally develop due to the growth of a primary tumor of the skin (basal cell carcinoma, squamous, melanoma, Kaposi's sarcoma, cutaneous lymphomas) or any malignant tumor metastasis. Other less frequent causes are the result of accidental implantation of malignant cells in the epithelium in diagnostic procedures and surgical or chronic wound which, in turn, lead to malignancies (Marjolin's ulcer). [1-3]

The prevalence of those lesions, regardless of the anatomic location, is not well documented, but there are estimates, from international studies, that 5 to 10% of cancer patients develop malignant wounds [2, 3]. Study conducted in Switzerland, during six months, found that the prevalence of malignant lesions in patients with metastatic cancer was 6.6%. [4]

The skin metastases occur in 0.7 to 10.4% of all those patients diagnosed with cancer and 2% represent all skin tumors. Metastases may be the first clinically silent cancer sign or even an indication of tumor recurrence. The appearance of subsequent metastasis is variable, but, in general, it occurs during the first three years after diagnosis. [5-8] Breast, lung and gastrointestinal tract cancer and melanomas are tumors that have increased susceptibility to progress to skin metastases. [9]

One assumes that skin metastases and malignant neoplastic wounds are more common in developing countries than developed countries, but the data in the literature are too limited to confirm this. One postulates that, in the poorest countries, the limitation of education and public awareness along with the lack of screening programs are the reasons that lead the patient to provide advanced forms of those lesions. [10]

However, even with advanced forms of the disease, the survival of patients with malignant neoplastic wounds have increased in the last four decades. [11] A retrospective study [12] conducted

in a palliative care unit with 418 advanced cancer patients presenting skin problems (pressure sores, malignant neoplastic and others) used multivariate analysis and control of co-occurrence of injury, age, sex, Charlson's comorbidity index and Performance Scale and revealed the following results: there was increased statistically significant risk of death for women who had pressure sores; association between the presence of several injuries and reduced survival; and no association between the presence of malignant neoplastic wounds and decreased survival of patients. Probably, the reduction of survival relates to the advancement of the oncological disease and the use of various therapeutic modalities for many years.

Malignant neoplastic wounds are a grievance in the patient's life with oncological diseases, because they gradually disfigure the body, becoming friable, painful, secretive, foul-smelling and often compete for mutilations. Those wounds have psychological and social effects that can interfere with interpersonal relationships, since the patient has feelings of rejection, social isolation, anxiety, sadness and loneliness. [13-17]

Malignant neoplastic wounds make the patient constantly remind of his/her incurable disease, the evil prognosis and, most often, the patient brings in his/her speech, during the relational environment treatment, the *sine qua non* condition of death approaching. Faced with such a situation, the patient needs specific care of the injuries. [13-17]

The treatment of malignant neoplastic wounds is a complex issue because it requires evaluation of the oncologic etiology, the wound characteristics, physical and emotional state of the patient and the stage of the wound.

The nurse, as a member of the health team, is generally responsible for the care that requires physical, emotional and social contact. In this condition, performing curatives would be part of that care, because it is up to him/her to develop skills and abilities that enable him/her know and identify in-

dividual and/or social characteristics of patients with malignant wounds, and implement specific actions to the identified needs. In this sense, performing comfortable and aesthetically acceptable curatives for the patient is a challenge for nurses, which would contribute both to a more acceptable presentation of the patient in relation to his/her social image as the satisfaction with him/herself and the care received.

Based on this path, the study presents as a guiding question: what is the clinical management performed by nurses towards patients with malignant neoplastic wounds? In this perspective, the objective of the study was to investigate the clinical management of patients with neoplastic injuries by nurses.

This research aims to contribute to the expansion of scientific literature on the theme, as well as clarify the professionals on the importance of investing in training in oncology nursing, especially regarding the care of neoplastic wound, as well as sensitizing the hospital care institution to implement protocols that support the practice of the nursing professional.

Method

This is a qualitative research conducted with nurses, developed into a Charitable and Public Hospital in the city of Campina Grande/PB, Brazil, which serves people with oncological diseases, who need to perform medical diagnosis and radiotherapeutic, chemotherapeutic, surgical treatment, rehabilitation and palliative care.

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The inclusion criteria to delineate the profile of the study participants were nurses who were in labor activity at the time of collection and providing care to people diagnosed with cancer presenting tumor wounds; the exclusion criteria were nurses

who were not in labor exercise (such as, vacation, maternity leave, sick leave, clearance for teacher training). Given that the institution has 21 nurses and the research presents qualitative design, the sample occurred by saturation, that is, the inclusion of new participants ended when the obtained data began to repeat, according to the researcher's evaluation. [15]

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The authors constructed the instrument for this research, which characterizes by being a script containing questions for a semi-structured interview. The script consisted of two parts: the first part covered the issues related to socio-demographic, academic and professional data of the participating nurses (such as age, gender, time of training and professional experience) and the second part involved subjective questions related to knowledge and practice of the participating nurses regarding the clinical management of neoplastic wounds (such as pain, exudate, odor and bleeding management).

When invited to the study, the participants were informed about the research objectives. The secrecy, anonymity and withdrawal at any time of the investigation were secured, prior to presentation and signing of the Informed Consent Form (ICF), provided at time of interview whose recording has been duly authorized, which complied with Resolution 466/2012 of the National Health Council. The study was approved by the Research Ethics Committee under the CAAE 31103314.9.0000.5182.

The interviews were conducted in private environment in August 2014 and lasted about 30 mi-

nutes. Later, they were transcribed in the form of texts and subsequently submitted for validation of their statements, prior to completion of the analysis of the material. Soon after the successive reading of the speeches, one proceeded to the codification of the study participants, extracting the speeches grouped by similarity, thus being possible to form themes. The method used for the analysis was the qualitative analysis of Minayo (2010). [18]

In order not to identify the participants, the speeches received alphanumeric codes (N1 to N10), where "N" stands for "nurse", plus the interview number. Thus, "N1" is the first nurse interviewed.

Results and Discussion

The participants were ten nurses responsible for the curative of people with malignant wounds, with ages ranging 23-44 years old, training time from one to 20 years of service, with experience in assisting people with oncological diseases, from one to 15 years. When asked about the title, eight reported being specialists, one mentioned having only graduation and one mentioned having MSc degree. **Table 1** presents those data:

Table 1. Characterization of the research participants.

	N =10
Gender	
Female	10
Male	-
Age	
20 – 30	04
31 - 41	06
Time of academic formation	
1 – 5 years	04
6 – 10 years	04
11 – 20 years	02
Time of experience in oncology	
Up to 1 year	76.19
2 – 5 years	61.47
6 – 10 years	66.47
11 – 15 years	

	N =10
Degree	
Bachelor	76.19
Specialization	61.47
MSc	
Total	10
Source: Research data data, 2014.	

After collecting data, and from the estimated empirical material, the thematic category *Caring for malignant neoplastic wounds* emerged, which was divided into four subcategories: Pain Caring; Taking care of exudate and odor; Taking care of bleeding; Taking care of necrosis and signs of infection. They are presented below:

Caring for malignant neoplastic wounds

Assistance to people with malignant neoplastic wounds presents significant challenges to treatment, since, when detected at an advanced stage, they have no healing possibilities. Thus, treatment focuses on controlling the symptoms and signs of those lesions in order to promote dignity during the dying and death process.

Subcategory 1. Pain caring

Patients with malignant neoplastic wounds report pain as one of the worst experienced symptoms, affecting their quality of life [16]. This type of pain associates with neuropathy, that is, pressure and/or invasion of the nerve endings and structure resulting from the accelerated growth of the tumor [1], injuries cleaning and frequent dressing changes. [19]

Pain management of the participating research nurses follow some criteria established by the Ministry of Health Manual [20], exemplified in the following lines:

In the case of pain, we do analgesia [...] medication, such as dipyrone and Tramal. There are patients we have to administer dolantina.

N1.

for easing their pain, we change their position and position them on the cushion, in order to make the patients comfortable. I'm thinking in the nursing point of view, without using any medical resource. In the case of severe pain, prescribed medication..

N2.

In pain, we administer the medication, right?.

N3.

One can observe that, through the nurses' statements, they use non-opioid and opioid analgesics for pain relief, as recommended by the Brazilian Consensus on Cancer-related Pain Management [21]. It is noteworthy that, since 2001, the Ministry of Health recommends remedial actions to control pain, once already advocated since 1986 by the World Health Organization, which created the Pain Analgesic Ladder, whose purpose is to guide the sequential use of drugs, gold standard in the treatment of oncological pain [18] and pain management of patients with malignant neoplastic wounds. [22-23]

The Pain Analgesic Ladder consists of three steps: the first is characterized by mild pain and indicates the use of anti-inflammatory and non-opioid analgesics; the second one, by moderate pain, recommending weak opioids; the third one, by severe pain, advocating strong opioids. Therefore, it is possible to observe that the participants administer weak and strong opioids, respectively, for moderate and severe pain, to patients with malignant neoplastic wounds [24]. In this context, one infers that the service, as well as its nurses, bases their interventions on the current scientific literature.

Nevertheless, pain management is complex because the pain itself (neuropathic) unfolds in anxiety, anguish and apprehension related to the care procedures. In this sense, the nurses did not specify other actions taken to control pain, such as talking with the patients before and during the dressing,

in order to guide them and distract their attention, adjust the time of the curative exchange after the patient had already been medicated, irrigate abundantly the primary cover, remove the bandage gently and avoid rubbing the wound bed.

The Ministry of Health Manual [20] highlights more specific interventions to control pain during the course of dressing: using ice on the wound before and after the procedure, starting the procedure after 30 minutes of oral analgesia, five minutes from analgesia subcutaneously or intravenously or topically, assessing the need for topical anesthesia with 2% lidocaine gel (applied over and around the lesion, covering approximately 2 cm of healthy tissue).

Besides the application of ice and isolated lidocaine, there is evidence of therapeutic success to control pain using lidocaine and/or morphine associated with hydrogel on neoplastic wounds. A study carried out with 32 women with invasive ductal carcinoma found that the topical use of lidocaine 2.5%, associated with procaine 2.5% had therapeutic success 50% of the sample [24]. The use of diamorphine 10mg added to amorphous hydrogel, applied directly on the lesion, controlled the pain in the first day of the treatment [22, 25]. The topical application of morphine sulfate 10 mg/ml in 8 g of hydrogel in 16 patients with malignant wound revealed that the experimental group had pain relief in comparison with the control group [26]. The use of morphine gel with polyhexanide (PHMB) in 30 patients with painful chronic leg ulcers resulted in pain relief in all patients. In 24 hours after the application, the mean pain intensity decreased from 7.8 to 4.5. This new development is certainly a promising therapeutic alternative for pain control in patients with chronic ulcers. [27]

In order to minimize the trauma induced by frequent dressing removal, it is necessary to invest in dressings associated with sealants (zinc oxide), and protective barrier creams which are useful in protecting the surrounding skin [19]. Careful selection

of atraumatic and noncompliant covers, such as silicone, has been documented to limit skin damage, trauma and minimize pain during dressing changes. [4]

In addition to the therapeutic modalities mentioned for pain control, it is imperative to emphasize that the nurse N2 seeks autonomy of the profession when revealing the use of other forms of care that do not depend on the medical prescription, such as changing positions and using cushions that provide pain relief and patient's comfort.

It is noteworthy that none of the professionals inferred about what is behind a neoplastic lesion: the patient, with his/her total pain, fears, anxieties and afflictions, who feels fragile in body and soul. Where is the sensitivity?! One instigates up on a care that extends to human dignity, based on a dialogical model, in which the being receiving the care has voice and can express his/her needs.

Subcategory 2. Taking care of exudate and odor

The exudate in malignant neoplastic wounds relates to inflammation, vasodilatation and cell imbalance; and when excessive, cause proliferation of anaerobic bacteria, which release volatile acids (propionic, butyric, valeric, isobutyric, and isovaleric), volatile sulfur compounds, putrescine and cadaverine, responsible for the putrid odor [2, 3]. In this scenario, patients with malignant neoplastic wounds consider the fetid odor one of the most punishing symptoms, due to the disgusting feeling related to it. Moreover, the unpleasant odor causes vomiting, decreased appetite, weight loss and social isolation. [15, 28]

In this sense, some nurses follow the recommendations proposed by the Ministry of Health [17] and some others use contraindicated and even obsolete products in the treatment of wounds.

We clean the exudate. Depending on the amount, the patient even goes to the operating room in order to put a drain.

N1.

exudate is the issue of excessive production, right? We evaluate the exudate and the right type of dressing for the quantity and odor. Today, for the odor, we use calcium alginate, which contains silver and activated carbon with silver [...] they are the most used.

N2.

for exudate and odor, we use PVPI. Here, we use PVPI in almost everything!

N6.

when there are secretion and odor, the doctor prescribes furacin and dexamethasone. But, prior to them, we wash with chlorhexidine.

N7.

for exudate, we perform the dressing and communicate to the doctor, and for the odor, we clean with chlorhexidine.

N8.

when there is exudate, we do rigid cleaning three times a day, and for the odor, we do the cleaning with saline solution or disinfectant or topic PVPI

N9.

The survey participants mentioned that they perform the control of exudate and odor in malignant neoplastic wounds by cleaning the wound with saline solution and antiseptics, such as chlorhexidine and polyvinylpyrrolidone iodine (PVPI) and, subsequently, use primary covers, such as calcium alginate with silver and activated carbon with silver. Besides those dressings, the participants stressed that doctors still prescribe the use of Furacin (Nitrofurazone) and dexamethasone to control those symptoms.

For lesions cleaning, the saline solution is considered the ideal solution, for its isotonic properties and for it does not interfere with the healing process, since this solution does not cause tissue damage, sensitization or allergy, or alter the normal bacterial flora of the skin. [29]

Some authors [30] and the National Health Surveillance Agency [31] indicate the use of PVPI only for antiseptics of hands and forearms of the surgical team and preparation of the skin in during the pre-operative phase.

Thus, specifically regarding the topical treatment of wounds, the indiscriminate use of PVPI by some health professionals may likely be associated with the lack of knowledge or devaluation of the potential environmental and toxicological effects direct to patients and professional agents.

Therefore, there is no standard antiseptic to clean injuries, resulting in the application of atoxic solutions, such as chlorhexidine, by professionals, and toxic, PVPI, by others, on the same lesion. This kind of behavior indicates the need for Continuing Education in Health, from what nurses know and what they have in the locus of work, to awaken the interest of those professionals to provide good quality care, based on safety and scientific knowledge.

A comparative study verified the microbiostatic and microbicide concentration of antiseptics used to clean wounds, and the results showed the following decreasing effectiveness: polihexanide (PHMB), octenidine, chlorhexidine, triclosan and PVPI. Regarding the compatibility with the tissue, PHMB and octenidine present antiseptic recommendations for acute wounds, while, for chronic injuries, chlorhexidine is preferred due to its greater tolerability; and PVPI is indicated for skin antiseptics before invasive procedures. [32]

The Ministry of Health Manual [20] recommends, for controlling the exudate, absorptive dressings, and for odor, in addition to cleaning with saline solution and chlorhexidine, the use of primary covers, such as silver sulfadiazine and/or activated charcoal, topical metronidazole and aluminum hydroxide. The odor in neoplastic wounds is classified into grades I, II and III, which require different cares. Thus, from the exposed, for controlling the exudate, nurses follow partially the recommendations of the aforementioned manual. [20]

The activated charcoal impregnated with silver is suitable for exuding and malodorous wounds, because it removes wound exudate by absorption and has bactericidal effect, which reduces the odor. Calcium alginate, when in contact with exudate or blood, forms a fibrous gel, hydrophilic, hemostatic and rich in calcium that interacts with the wound sodium ions, absorbs the excessive exudate and/or blood and maintains the humidity, thus reducing the odor. [28]

In order to control the exudate, studies [3, 15, 28, 33-35] suggest absorbent non-stick primary covers, as alginates or polyurethane foams and hydrofibers. In order to prevent leakage of exudate for the clothing, research suggests a secondary coverage, such as colostomy bag and geriatric absorbent. [3, 33, 35]

With regard to odor, systematic literature review [2] found that metronidazole is significantly effective in controlling this symptom due to its imidazolic action, which acts directly on the DNA of microorganisms, preventing the synthesis of enzymes essential for the pathogen to survive. The Ministry of Health Manual [20] recommends the use of metronidazole topical gel 0.8% in the wound whose odor is grade I and/or II; for the grade-III wound, it recommends to associate the topical use of metronidazole to the systemic one.

Another important care is to inspect the surrounding skin for signs of inflammation, since it becomes brittle and with hyperemia, or even macerated due to tumor extension, due to radiotherapy and frequent dressing changes. [3, 33, 35] In these cases, studies [3, 33, 35] recommend the use of periwound protectors such as barrier creams and/or zinc oxide. In addition to those precautions, a tubular mesh can be used to better secure the secondary cover in an extensive wound. [35]

Studies [24, 36-37] with patients with malignant vegetating wounds observed that the use of alginate, hydrofiber, hydrocellular dressings and extra absorbent pads controlled the exudate, and the use

of activated carbon and metronidazole reduced the odor of that kind of wound.

Subcategory 3. Taking care of bleeding

Bleeding associates with angiogenesis, due to local stimulation of the growth factor of the vascular endothelium. This can occur during dressing or spontaneously [38]. Nurses highlighted the bleeding control modes for neoplastic wounds:

for the bleeding, depending on the type of the wound, we make a compressive bandage

N1.

when the wound starts bleeding, then you have to stop it. I know that there are, in the market, some types of dressings that stanch the bleeding and stay more days in contact with the wound, so that you have adequate time to be able to remove it [...] because if you keep removing that bandage, you will break it again and the capillary bleeding will continue

N2.

for the bleeding, we use adrenaline in the wound or Transamin IV, prescribed by the doctor. When doing the debridement and the wound starts bleeding, the doctor tells us to put adrenaline on it and it stops bleeding instantly

N7.

in the case of bleeding, we do tamponade immediately.

N8.

The survey participants mentioned they perform pressure dressing as the simplest method to control bleeding and administer topical adrenaline and intravenous tranexamic acid, according to medical prescription. It is noteworthy that such behaviors are in accordance with the recommendations of the Ministry of Health protocol. [20]

Adrenaline is a vasoconstrictor suitable for skin arterioles and capillaries bleeding. However, it

should be used with caution because it can lead to ischemia and necrosis in areas of blood supply commitment. The use of fibrinolysis inhibitors, such as tranexamic acid and aminocaproic acid, is also suitable for controlling the bleeding. [3, 33, 35, 39]

One can see that the nurse N2 discloses knowledge of hemostatic covers available in the market that remain longer adhered to the wound bed, without the need for frequent replacement, thereby minimizing the risk of bleeding. It is noteworthy that the institution of the research did not show availability of such coverage at the time of data collection. In this sense, it is urgent to highlight nursing actions that can be performed in order to prevent the potential risk of profuse bleeding, such as irrigating the primary cover abundantly and releasing it gently from the wound bed.

Besides the direct compression of bleeding vessels (for 10 to 15 minutes), the Ministry of Health [20] recommends the direct application of cold saline solution on the site and/or use of natural hemostatic coverage, such as calcium alginate, with the purpose to minimize bleeding. In case those actions do not succeed, the nurse should inform the doctor so that he/she prescribes vasoconstrictor drugs and/or antihaemorrhagics.

Recent studies [3, 33, 35, 39] also suggest the use of astringents (sucralfate), sclerosing agents (silver nitrate) and coagulants (gelatins) to control bleedings.

For many patients, the profuse bleeding causes anxiety and nervousness, so it is advisable to use palliative sedation and dark colors of towels when restraining the bleeding vessels, in order to minimize such psychological and emotional repercussions. [20]

Another aspect worth mentioning is the constant use of the verb "to tell", always highlighted in the descriptive expression of the nurse N7, especially when she mentions the treatment for bleeding control of neoplastic wound. Verbs are actions of the sentences, the words and texts; there is no

report regarding the procedure without using the verb "to tell". "To tell" comes from the Latin *mandare*, direct and indirect transitive verb, meaning "to require to do", "order", "determine", "have the power" or "authority". Thus, one reflects in the following explanatory direction according to the participant's speech: the relationship established between health professionals, particularly between the doctor and the nurse, is of command and not of mutual participation, as expected from a multidisciplinary team.

In this sense, one reflects on a possible gap in knowledge by the nurse (for example, N7) regarding the care to patients who develop malignant neoplastic wounds, which, in turn, interferes with the autonomy of the health professional, who is also responsible for managing the care.

Subcategory 4. Taking care of necrosis and signs of infection

Tumor growth, the decreased local blood supply and the loss of tissue viability can lead to necrosis, and, consequently, to bacterial colonization, which can progress to local and systemic infection [3]. In this sense, nurses reveal their actions given such sign.

for necrosis, the hospital does not provide [...] but, depending on the patient's condition, sometimes they buy those appropriate dressings that help to reduce this amount of dead tissue.

N1.

many cases, we have to do debridement. And that debridement [...] you do not always get to do throughout the wound, right? Some substances have a debridement action [...] you put them, and that necrosis will be releasing [...]. In some cases, you may make the mechanical removal with tweezers, scissors.

N2.

depending on the necrosis, we take the patient to the operating room for debridement.

N3.

in the necrosis, we use Collagenase.

N5.

One may observe that the nurses know the methods for debridement of wounds and the risks involved in this procedure, converging with the recommendations of the Ministry of Health [20]. However, the speech of nurse N1 revealed that the research institution does not provide material/ or specific dressings for the management of necrosis, leaving the family - only the one with favorable and financial conditions - responsible for purchasing such products, which would control this symptom, one of the most devastating, and originating from various complications. Toward this result, one points out to a Brazilian health policy frail and psychosocially limited, especially for terminal patients.

Patients with advanced malignancies develop, in the last months of life, wounds whose main characteristic is that they do not heal. For this, the Ministry of Health [20] publicized a manual with recommendations for controlling signs and symptoms of those types of injuries, whose main goal is to provide relief from suffering, ensure quality of life and dignity of the remaining days in the process of death and dying.

In the case of care with necrosis, the best approach is the autolytic debridement, enzymatic [38], but one must evaluate the risks and benefits of this procedure given the patient with malignant neoplastic wound, since the friability of the lesions may cause the potential risk for massive bleeding. [38-39]

In this sense, certain factors should be considered before performing the debridement, such as the area to be debrided, the presence of local infections, vascularization and neovascularization of the site, the risk of bleeding during or after the procedure, controlling odor resistant to prior therapy and general condition of the patient. [39]

According to the Ministry of Health [20], nurses should evaluate the need for debridement conse-

ring the functional capacity of the patient, as well as select the method: autolytic, enzymatic, mechanical or surgical. If necessary, authors highlight [38-40] that the debridement of malignant neoplastic wounds should be performed in the operating room, in view of the need for the use of hemostatic devices, such as electrocautery.

In such wounds, removing the debris can be accomplished by keeping the site moist, by gently cleaning the necrotic areas or using jets of saline solution at a pressure of eight to 15 psi (pound force per square inch) [40]. When the tumor has extensive necrotic tissue, the surgical debridement may be indicated to prevent infection, exudate and odor control; however, one should consider cases when the patient is in palliative care, having in mind that this procedure leads to greater physical and emotional suffering for him/her and the family.

The survey participants reported using collagenase for enzymatic debridement of necrotic areas in neoplastic lesions. Collagenase is a proteolytic enzyme whose action mechanism is necrolysis, that is, native collagen degradation in the wound floor; usually recommended for pressure, vasculogenic and diabetic ulcers [41]. Regarding malignant neoplastic wounds, the Ministry of Health [20] recommends enzymatic debridement; however, it does not mention any specific product for this purpose. The Ministry of Health [20] points out that collagenase is contraindicated in patients with tumor wounds at an advanced stage, for it proved ineffective in clinical practice of patients in Palliative Care Units. The National Health Surveillance Agency [42] warns that, if there is no desired effect within 14 days, the treatment with collagenase should be discontinued.

Infectious episodes generally relate to a reduction of the immune response, the proliferation of anaerobic microorganisms, and dead tissue on the neoplastic wound [2] and those infections can be checked by the presence of systemic and local signs, that is, fever, increased odor, pain, exudation, color change of the wound bed and inflammation [24].

In this perspective, the nurses said it is extremely important to assess the extent of the infection before proceeding with the appropriate therapy, as highlighted in the statements below.

in the case of infection, we make dressings and medication.

N1.

[...] you have to assess whether it is a local or systemic infection. If it is a systemic infection, so only the nursing treatment and simple dressing do not treat it, right? There has to be a set [...] you have to have a bactericidal dressing.

N2.

for infection, we administer antibiotic.

N3.

when the wound is infected, we make the dressing well done so that the infection does not get worse, right?

N6.

when there is infection, we use Furacin and Neomycin.

N7.

Nurses reported that the management carried out for the control of infection bases on careful evaluation and medical and nursing therapy. Nurses recognize that the treatment of systemic infections covers not only specific nursing care, but also medical treatment and/or more specific dressings. Moreover, it is possible to observe that the nurses are concerned to proceed with the dressing effectively, in order to improve the condition of the wound and prevent future complications. This concern reveals the essence of the nursing profession, which sees care as an act of zeal for the patient.

Authors [24, 35] recommend some topical products for neoplastic wounds, which act as debriding and antimicrobials, being cadexomer iodine and PHMB the most emphasized. Cadexomer iodine is

a dressing in the form of an ointment containing modified starch microspheres, polyethylene glycol and 0.9% iodine. The starch cadexomer acts debriding the slough and absorbing the wound exudate; it has antimicrobial activity of broad spectrum up to 72 hours.

The PHMB is considered an antimicrobial agent which favors the control of microorganisms present in infected wounds, since the molecules of this product exert their bactericidal effect by aggregation mechanisms, mediated by their biguanide cationic cores, attracted by the anion to the wall cell of the bacteria, which causes its lysis. It also changes the permeability of the microbial cell membrane, which leads to loss of key components and cell death. [42]

Research [24] obtained therapeutic success using PHMB for a period of eight to 12 days on malignant wounds at the first signs of local infection, clinically observed and in cases of suspected biofilm. It is noteworthy that the Ministry of Health Manual [20] does not specify recommendations for infection control.

Conclusions

The nurses participating in the research follow certain guidelines proposed by the literature in their practices, particularly in the management of pain, bleeding, debridement, infection. However, there is a lack of suitable materials for this type of wound in the research institution; some professionals use unsuitable cleaning products and covers, feeling insecure when they turn for an assistance guided by the biomedical model.

One reflects on an urgent approach of continuing healthcare education for those professionals, which values their prior knowledge, from what they know, offer and may have by raising awareness of managers for what is appropriate for the patient with neoplastic wound.

Thus, this research opens the prospect for new proposals that may contribute to the study of the

subject, especially in health policies that can qualify the professional to question as historical subjects responsible for authentic care without mutilating the facets of an orderly care, associating knowledge, and reflecting the greater good, life, for as long as it exists

Conflict of Interests

There are no conflicts of interests

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