Use of silver coverage in marjolin ulcer treatment: case study

Uso de cobertura com prata no tratamento de úlcera de marjolin: estudo de caso

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RESUMO

Introdução: Úlcera de Marjolin é um termo comumente referenciado à degeneração maligna de feridas crônicas não cicatrizadas ou cicatrizadas por segunda intenção e a maioria dos casos descritos refere-se a carcinoma espinocelular. Objetivo: Descrever os cuidados médicos e de enfermagem no tocante ao paciente com úlcera de Marjolin. Método: Trata-se de um estudo de caso de um paciente com úlcera de Marjolin, acompanhado desde o pré-operatório até a cicatrização da lesão, tendo como enfoque as condutas terapêuticas médicas e de enfermagem em um serviço especializado. Resultados: O acompanhamento do paciente foi realizado pela equipe de Enfermagem de uma Comissão de Pele e consultas programadas com cirurgião vascular, dermatologista e oncologista, foi realizada biópsia; logo após a confirmação diagnóstica, o paciente submeteu-se à cirurgia para retirada do tumor, no pós-operatório, iniciaram-se intervenções terapêuticas para o tratamento da lesão. Utilizou-se sabonete com polihexanida metil biguanida para antissepsia e cobertura de prata como curativo primário. Conclusão: Após seis meses houve a total cicatrização da lesão. Não foram observados desconfortos ou complicações decorrentes do uso do produto, concluindo-se que o mesmo apresentou boa tolerabilidade e eficácia terapêutica para este caso em particular, estudos com métodos de maior precisão e validade interna, são necessários para uma melhor avaliação do desempenho desses novos produtos para o tratamento de feridas tumorais na prática clínica.

Palavras-chave: Úlcera da Perna; Carcinoma de Células Escamosas; Cicatrização.

ABSTRACT

Introduction: Marjolin's ulcer is a term commonly referred to as malignant degeneration of unhealed or healed second-use chronic wounds, and most cases described refer to squamous cell carcinoma. Objective: To describe the medical and nursing care regarding the patient with Marjolin's ulcer. Method: This is a case study of a patient with Marjolin's ulcer, followed from preoperative to wound healing, focusing on medical and nursing therapeutic approaches in a specialized service. Results: Patient follow-up was performed by the Nursing team of a Skin Commission and scheduled consultations with vascular surgeon, dermatologist and oncologist, biopsy was performed; soon after the diagnostic confirmation, the patient underwent surgery to remove the tumor, in the postoperative period, therapeutic interventions were initiated for the treatment of the lesion. Polyhexanide methyl biguanide soap was used for antisepsis and silver coating as the primary dressing. Conclusion: After 6 months there was complete healing of the lesion. No discomfort or complications due to the use of the product were found, and it was concluded that it presented good tolerability and therapeutic efficacy for this particular case, studies with more accurate methods and internal validity are necessary for a better evaluation of the performance of these new products for the treatment of tumor wounds in clinical practice.

Keywords: Leg ulcer; Carcinoma of Squamous Cells; Healing.

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INTRODUCTION

Marjolin's ulcer was first described in the 19th century and refers to the malignancy of a chronic ulcer lesion, it is believed that chronic inflammation of the tissue is one of the main triggers of malignant transformation. Squamous cell carcinoma (SCC) is the neoplasm found in most cases, usually located at the extremities, particularly in the lower limbs. Latency to malignant transformation occurs, on average, with three decades. Surgery is the treatment of choice, being the therapeutic modality with the highest rate of cure and the one that offers greater survival[1].

Squamous cell carcinoma of the skin (SCC) is an atypical proliferation of prickly skin cells with invasive and metastatic potential. It accounts for approximately 15% of malignant neoplasms of the skin. It is the second most common type of cancer in light-skinned people and the first in dark-skinned people, and it has been increasing in frequency to epidemic proportions. It most often arises after the age of 50, usually due to increased exposure to the sun. Metastases may occur after months or years of illness. Histologically the malignant epithelial cells extend towards the dermis[2-4].

The treatment depends basically on the size of the lesions, in initial lesions (<1 cm), the electrocoagulation is acceptable for locoregional control; In the larger lesions, resection with a minimum margin of 0.5 cm is desirable, laterally and deeply, however the conventional treatment with special coverings has presented a therapeutic option with good results. Usually, most patients with CPB are treated successfully at the outpatient clinic, presenting excellent results[2,5].

In this context, the patient with Marjolin ulcer is a challenge for nurses, since they are part of the multiprofessional team and are responsible for the evaluation of the lesion, indication of specific coverage and cleaning and dressing. In this sense, the nurse needs to develop skills and abilities in order to identify, evaluate and treat tumor wounds.

Thus, the objective of this study is to report the nursing care provided to a patient with Marjolin's ulcer in the right lower limb of the postoperative period until the healing of the lesion, using silver foam. The proposed study may contribute to qualified nursing care and will provide dissemination of the knowledge to the scientific and care community about the practice in the area of tumor wounds, with a view to strengthening Nursing teaching and practice. The study is relevant, because venous ulcers have been a major public health problem, since they are prevalent, chronic, have serious complications that deserve individualized and effective care.

METHOD

This is a descriptive research of the type of case study, carried out during the period from June to September of 2017, in the ambulatory of the Skin Commission of a university hospital, located in the state of Paraíba and is part of an integrated project entitled "A pain in the perception of patients with neoplastic wounds ", with the Research Ethics Committee, University Hospital Alcides Carneiro, Federal University of Campina Grande (UFCG) - PB, under CAAE 13341413.0.0000.5182. The norms of Resolutions 510/2016 and 466/2012 were complied with, which guide research involving human beings[6,7].

For data collection, records of the patient's chart and admission and follow-up records, specific to the service, were used. The information collected was organized according to the chronology of the facts to follow the evolution. Data analysis was based on the literature relevant to the histological type of cancer, as well as the type of lesion, evaluation and treatment of tumor lesion, guided by the Manual of the National Cancer Institute, which has standardized interventions for evaluation and treatment of tumor wounds.

CASE REPORT

MSF, 51 years old, male, brown, married, one son, machine operator, living in Joao Pessoa - PB, diagnosed with inferior venous insufficiency (MMII) and recurrent varicose ulcer in the left lower limb 2008, presenting hospitalization history from July 8 to 28, 2016, for treatment of varicose veins in the lower limbs, surgical debridement and collection of lesion fragment for culture and biopsy.

On August 2, 2016, after being discharged from the hospital, he was referred to the outpatient clinic of the University Hospital Lauro Wanderley (UFPB), in João Pessoa-PB, for ulcer treatment, six days later the biopsy result was concluded for diagnosis of Moderately invasive squamous cell carcinoma. As a result, the clinical diagnosis pointed out by the dermatologist was Marjolin's ulcer and the patient was referred to the Clinical Oncology of the hospital, and consequently referred to the cancer hospital of the municipality.

On November 9, 2016, the patient underwent a surgical procedure to remove the tumor and then returned to the Skin Commission to continue the treatment of the healing wound by second intention. Nursing consultation and construction of a care plan were carried out.

At the physical examination the patient was conscious, oriented in time and space, anxious about the treatment, wandering, had satisfactory oral and body hygiene, rest and sleep preserved, restless, normocorate, acyanotic, anicteric mucosa. Eupneic, absent adventitious noises; regular heart rate; semiglobular abdomen, de-

pressible and painless to palpation, diuresis present, and intestinal elimination absent six days (SIC). Vital signs: HR: 83 bpm; P: 74 bpm; FR: 18 irpm; T: 36.4 ° C; PA: 110 x 80 mmHg. He denied smoking and alcoholism, a history of allergy to Dipyrone, Meloxicam and Azithromycin. Laboratory tests: Hemoglobin: 4.82 g / dl; Hematocrit: 42.2%; Leukocytes: 6.260 mm; Glucose: 94 mg / dl; Total protein: 6.5 g / dl; Albumin: 4.1 g / dl.

The ulcer had the following clinical signs: perilesional skin with macerated borders, bed with granulation tissue of irregular and fluffy appearance; presence of devitalized tissue and biofilm, identified through the presence of a thin, translucent, shiny layer on the wound, especially in the central region of the lesion bed; Serous exudate in moderate quantity, without odor; measuring approximately 7 cm in extension, 6 cm in height, without pain, as shown in figure 1, the fragment fragment culture revealed Klebsiella oxytoca.

The recommended conducts were: cleaning with soap and antiseptic solution with polyhexanide methyl biguanide (PHMB), conservative instrumental debridement for biofilm removal, the selection of the cover was the polyurethane foam impregnated with silver, initially the dressing was performed twice a day per week, but with the evolution of healing has become weekly.

On March 28, 2017, figure 2, the lesion showed the following clinical signs: hydrated perilesional skin; edges in epithelialization, however with maceration points; bed completely filled with granulation tissue, measuring approximately 2 cm in length and 1.5 cm in height and presence of serous exudate in a small amount, did not present pain and odor.

On May 31, 2017, the lesion evolved with complete healing and the patient was discharged, as shown in figure 3.

DISCUSSION

The incidence of CPB is estimated at 3 to 10% per year, higher in the elderly and males, with a ratio of 3: 1. Most lesions occur in photoexposed areas, but may appear in other areas of the body such as upper limbs, lower limbs, thorax and back, accounting for 70% of non-melanoma skin cancer (NSCLC) deaths[2,8,9].

CEC is strongly associated with the interaction between host susceptibility and sun exposure, as its main cause. Other conditions also lead to increased risk of developing CPB, namely: exposure to ionizing rays, arsenic and hydrocarbons; burn scar; chronic venous ulcer; chronic osteomyelitis; immunosuppression; carriers of several dermatoses, such as xeroderma pigmentosum, nevus syndrome of basal cell carcinoma and personal history of skin cancer [9].

According to the National Comprehensive Cancer Network (NCCN), the recommendation is that all ECC should be biopsied prior to any procedure, allowing for a more appropriate choice of treatment [9].

In most cases, the surgical procedure for radical excision is the treatment of choice, but before and in the postoperative period, in which healing occurs by second intention, tissue repair time is prolonged by the pathology itself, which often has repercussions on hospitaliza-

FIGURE 1 – Marjolin's ulcer after surgical incision in second intention healing. João Pessoa / PB, Brazil.

Date: January 24, 2017 Source: File of the Skin Commission, 2017

FIGURE 2 – Marjolin's ulcer in final evolution of the healing process. João Pessoa / PB, Brazil.

Date: March 28, 2017 Source: File of the Skin Commission, 2017

FIGURE 3 – Epithelized Marjolin ulcer. João Pessoa / PB Brazil.

Date: May 31, 2017 Source: File of the Commission on Fur, 2017.

tion of the patient, which could be avoided if there is a well-conducted care of the nursing professional regarding the management of the available coverage and the integral follow-up of this patient. Therefore, topical treatment was prescribed for the purpose of controlling signs and symptoms and accelerating the healing process.

The antiseptic soap and cleaning solution based on polyhexanide and betaine are effective in treating infected/colonized wounds, reducing the signs of colonization or infection and providing odor control, is especially indicated for the treatment of chronic and difficult wounds healing[10].

For the debridement, the conservative instrumental type was used for the removal of sloughs and biofilm from the wound. Biofilms are polymicrobial communities involved in a three-dimensional matrix called the extracellular polymeric substance (EPS), its presence and high microbial load on the wound, interferes with the inflammatory phase, damaging the subsequent phases, which favors the delay in the cicatrization process and

the maintenance of the chronicity of the wound, indirect clinical indicators may indicate biofilm presence, such as clinical signs of local infection, excessive humidity, friable granulation tissue, failure of antimicrobial treatment and recurrence of infection[11,12].

The diagnosis of biofilms in clinical specimens can be difficult and time-consuming and result in false negatives if the samples are not representative of the focus of biofilm infection, the most reliable samples for detecting biofilms are biopsy fragment tissues, identification it is necessary that microscopy methods show evidence of an infectious process (presence of leukocytes) and that the microorganisms present demonstrate that they are microbial aggregates incorporated into a matrix[13].

The pathogenesis underlying this type of ulcer is complicated by excessive and prolonged inflammation, which is usually related to critical colonization and local infection, the pathophysiological mechanism of which is still little known, and interventions that prevent the chronic inflammatory process should be emphasized[1,14].

For this reason, polyurethane foam with silver was selected as the primary cover, because it has anti-inflammatory and antimicrobial properties with a broad spectrum of action against Gram-positive and Gram-negative bacteria, provides sustained availability of silver, and high capacity of absorption, favors maintenance of the humid microenvironment, is easy to exchange, painless, does not cause trauma during removal[15].

No specific previous studies have been found that directly address the use of this coverage for the treatment of Marjolin ulcer. However, a cohort study of 32 women with vegetative plantar wounds presented a positive response to the control of signs and symptoms; among them, the odor was partially controlled with the use of PHMB to clean the lesions and the signs of infection were controlled with the use of silver-impregnated topcoats as primary dressings[16].

Research carried out with patients with chronic venous ulcer who used silver foam as the primary dressing showed that the lesions had a shorter wound healing time than those who did not use this cover demonstrating that the use of silver dressings improves healing time and, consequently, can lead to overall cost savings[15].

In this sense, the use of the specified coverage accelerated the cicatricial process and allowed the accomplishment of the dressing with a longer time and with more comfort to the patient, allowing greater adherence to the therapeutic process, impacting on the quality of life of the patient.

As part of the care plan, the patient was instructed on blood pressure control and reduction of overweight, stimulating healthy life habits and monitoring the health condition periodically. All the ducts were registered in the admission and follow-up form standardized by the Skin Commission and after discharge attached to the patient's medical record.

CONCLUSION

The malignancy of a chronic wound is a dynamic process, with a pathophysiological profile that is still little known, so the importance of early differential diagnosis is emphasized so that it can be effectively prevented or treated. This requires nurses to develop technical-scientific skills and clinical practices appropriate for the management of the lesion.

In this context, the significant results of the clinical case may contribute to the nurses evaluating their clinical, educational and research practices related to the treatment of chronic ulcers, referring to the reflections about the importance of specialized care and its impact in the reduction of the cicatrization time, which directly interferes in the quality of life of these patients, and may awaken to the importance of the implementation of protocols that subsidize greater autonomy of the nurse in the decision making.

This study provided data on a particular case, but more studies with more accurate and more internal methods, such as randomized controlled clinical trials, need to be developed to care for people with *Marjolin* ulcers, including new ducts, even, theories that can subsidize Nursing care in what concerns to know and do in this assistance to people with oncological wounds.

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