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Follow-up of pressure injury associated with the use of Tala and use of varied techniques in the treatment of the wound

Abstract

Wound is any damage caused by interrupting the continuity of a body tissue, to a greater or lesser extent, caused by trauma or triggered by a clinical condition. Objective of this research is the nursing conduct used in the treatment of pressure injuries that are applied during the evaluation and evolution of the case of patients admitted to the Regional Hospital of Vilhena - RO.

Method: this is a descriptive case study, with qualitative approach, the research will be carried out at the Regional Hospital of Vilhena in 2018, it will be a project based on research ''Pressure injury associated with splint use. case study of a patient seen in an emergency care unit: evaluation, diagnosis and nursing interventions''.

Results and discussions: The use of various techniques for the assessment and evolution of the wound has been shown to be very effective in terms of healing time, less exposure to the patient and less risk of infection.

Conclusion: Although this study is limited by the fact that it is a unique case, it is relevant for health professionals, mainly nurses, for managers of institutions and for the practice of caring for people with LPP because it seeks to analyze the effectiveness of therapies implemented in injuries, and should be replicated in other institutions and in other patient profiles.

Keywords: varied techniques, pressure injury, nursing

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Introduction

A wound is any damage caused by interrupting the continuity of a body tissue, to a greater or lesser extent, caused by trauma or triggered by a clinical condition. They can be acute and easy to heal or chronic when they exceed six weeks to heal. They are considered a public health problem, due to the psychological, social and economic impact on patients, with high and increasing costs for the health system.[1]

In Brazil, for example, pressure injuries (LPP) have a high rate of patients with skin damage, the global incidence of pressure injuries is 37.03%. Also emphasizing that the high incidence is directly related to the high risk that patients have of developing the injury.[2] The appearance of the lesion can also occur due to intrinsic factors such as the patient's nutritional status, mobility, incontinence, weight, age, circulatory changes, level of consciousness.[3]

The onset of most injuries occurs during the first week of hospitalization, is caused by limitation of movements, positioning in bed, daily observation of the skin, hygienic care and in the case of trauma victims to the use of immobility prolonged without the use of protection, constitutes a risk factor for the presence of pressure injury.[2]

In practice, the nursing team brings awareness that the treatment of pressure injuries is still a problem faced, and it is necessary to have adequate knowledge of the correct execution of aseptic techniques, types of coverages available. Even in the event of a pressure injury, preventive measures must still be maintained. The care plan includes several measures such as wound assessment, cleaning, dressing, debridement, if necessary, and supporting therapies.[4]

The main objective of this research is the nursing conduct used in the treatment of pressure injuries that are applied during the evaluation and evolution of the case of patients admitted to the Regional Hospital of Vilhena-RO. Investigate the importance of assessing the wound and applying adequate coverage to patients with pressure injuries through case reports; Evaluate the indications, effectiveness in carrying out various techniques for the treatment of the wound; Daily monitor the evolution of the wound and the effectiveness of using different techniques.

Based on these premises, the knowledge of various techniques for the best treatment and evolution of the pressure injury are evidenced to obtain better assistance and minimize possible complications to the patient. The present study is justified by the need to monitor and perform various techniques in the treatment of pressure injuries due to the use of splinting caused by an automobile accident through case reports occurred at the institution in question and its relevance is to enable the evaluation of assistance and, if necessary, instituting a review of current processes, contributing to quality and safety assistance to the patient.

Materials and methods

The research is a descriptive case study, with qualitative approach, which aims to describe various techniques in the treatment of pressure injuries resulting from the use of a splint without protection from

bony prominences. In the case studied, the trauma was caused by a fracture of the femur and immobilization without protection in the region of the calcaneus.

The research will be carried out at the Regional Hospital of Vilhena in 2018, it will be a project based on research ''Pressure injury associated with splint use. case study of a patient seen in an emergency care unit: evaluation, diagnosis and nursing interventions ''. In this research, the monitoring and evolution of the pressure injury and the use of various techniques to treat the wound will be performed.

To carry out the research, it was necessary to authorize the patient, through a Free and Informed Consent Form, the research was approved by the Research Ethics Committee.

Results and discussion

LSS, 20 years old, from a public hospital, located in the city of Vilhena, Rondônia, was admitted to the HRV emergency department on 28\12\2017 where he remained hospitalized due to a motorcycle accident brought by the fire brigade, diagnosed with a fracture of left diaphyseal femur. He was using a splint for immobilization without using heel protection. On the 1st day of hospitalization, there was numbness, fatigue and subsequent loss of sensation. He was transferred to the bom Jesus hospital for a surgical procedure, afterwards he heard the appearance of the phictema, and so the patient was discharged from the hospital without detecting the pressure injury and monitoring.

Wounds can be defined as any injury that interrupts the continuity of the skin. They can reach epidermis, dermis, subcutaneous tissue, fascia muscle, being able to expose deeper structures.[2]

The emergence of a pressure injury is considered an adverse event that occurred in the hospitalization process, which indirectly reflects the quality of care provided. The places with the highest occurrence of pressure ulcers are: sacral region, trochanters, calcaneus and bony prominences. They are usually located in areas of bony prominences and occur when the pressure applied to the skin, for some time, is greater than the normal capillary pressure. The injury it can appear as intact skin or an open ulcer and can be painful.[1]

On the research date, the lesion was in an unclassifiable stage, requiring mechanical debridement with the removal of the necrotic tissue, using an alginate hydrogel at the first moment, dressing applied daily.

Debridement or debridement is used to remove necrotic or devitalized tissue, stimulates angiogenesis and the formation of collagen, reduces the risk of infection, and allows for the correct staging and evaluation of the response to treatment and better healing. There are 5 different methods: autolytic debridement (occlusive/sub occlusive coatings such as hydrofilm, hydrogel, hydrocolloid) mechanical debridement, chemical enzymatic debridement (collagenase, streptokinase, firinolysin), surgical instrumental debridement, conservative instrumental debridement.[5–8]

With the daily treatment of the pressure injury on the tenth day epithelialization points can also be noted with the presence of tissue with slough in the wound bed. Mechanical debridement was performed on the wound bed with Silver Coat coverage, on the edge of the wound Hydrogel with Alginate and on the distal to the bed AGE was applied.

Silver Coat coverage is a nylon dressing 100% impregnated with silver. It is indicated for prevention and control of infections in wounds. It can be used directly on the wound, where its silver fibers have a potent antimicrobial action. Its mechanism of action destroys the bacterial cell barrier, blocks the enzymatic process and the respiratory chain, prevents cell division. The alginate hydrogel will perform autolytic debridement, keep the medium moist for a longer time due to its consistency, promote tissue granulation and hemostasis. Essential fatty acid (AGE) helps in the granulation process and stimulates epithelialization.[4,7,8]

On the thirteenth day of treatment, papain 6% was applied, where the wound was with the presence of purulent exudate in medium quantity and presence of sloughs in the wound bed, being at the moment the most suitable coverage for this type of tissue.

Papain is a proteolytic enzyme present in the latex of the vegetable Caricapapaya (papaya), which has a bactericidal, bacteriostatic and anti-inflammatory action, thus stimulating uniform tissue growth, promoting enzymatic debridement of necrotic tissue and decreasing the formation of keloids. Concentrations of 2% are usually indicated (wounds with granulation tissue); 4 to 6% (when there is purulent exudate) and 10% (when there is necrotic tissue).[9,10]

With epithelialization to a great extent in the lesion, on the twenty-fifth day SILVER IV (silver alginate dressing) was used and on the edge of the wound Essential Fatty Acid (AGE).

The Silver IV dressing has alginate fibers when in contact with the exudate form a hydrolytic and non-adherent gel that provides a moist medium on the wound surface, promoting autolytic debridement and absorbing the exudate, allowing for removal without trauma, with small or no damage to the newly formed tissue, a suitable medium for the healing process. The AGE in turn will assist in the tissue epithelialization process.[7,11] The complete epithelization of the lesion occurred after sixty days of injury monitoring.

The use of various techniques for the assessment and evolution of the wound has been shown to be very effective in terms of healing time, less exposure to the patient and less risk of infection.

Conclusion

Although this study is limited by the fact that it is a unique case, it is relevant for health professionals, mainly nurses, for managers of institutions and for the practice of caring for people with LPP because it seeks to analyze the effectiveness of therapies implemented in injuries, and should be replicated in other institutions and in other patient profiles.

The treatment of PPL is considered a challenge for health care; the search for new technologies and products that minimize the effective therapy time should be increasingly valued in institutions and, mainly, by nurses, as it is the category more professionalized professional for this care. Institutions need to foster research in order to test and validate methods that can generate important results for an increasingly qualified assistance.

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Conflicts of interest

The authors declare that there are no conflicts of interest.

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