

# PHOTODYNAMIC THERAPY ASSOCIATED WITH SPECIAL COVERAGES IN PRESSURE INJURY IN A UNIVERSITY HOSPITAL: A RELEVANT CASE STUDY

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#### Introduction:

COVID-19 reached the entire world in early 2020, it is an infectious disease caused by the SARS-COV-2 virus, which can progress to a more serious condition such as Severe Acute Respiratory Syndrome, which these patients often suffer from, submitted to orotracheal intubation. The incidence of Pressure Injury is one of the most noted complications in patients hospitalized in intensive care units, caused by the lack of skin management and change of position. As a result of hemodynamic instabilities, among other complications expressed, manipulation was avoided and, consequently, less management of these patients, which led to the appearance of these lesions.

Among the approaches taken by the team, we highlight the monitoring of the lesion with special dressings based on the latest scientific findings, such as the use of PDT. In these types of injuries, the use of this technique can accelerate the healing process, since it causes the biofilm barrier to break down and the infectious processes to decrease, accelerating the healing process.

Objective: To report multidisciplinary approaches in a pressure injury in the sacral region of a post-Covid patient using the PDT protocol

### Methods:

This is a case report about an adult, diabetic male patient, hypertensive and morbidly obese, admitted on 03/01/2021 to an intensive care unit of a university hospital and later transferred to an inpatient unit., expelled a stage IV pressure injury in the sacral region.

On 04/25/2021 the patient needs to be transferred again to the ICU and, after 30 days, he returned to the inpatient unit. The start of interventions by the multidisciplinary team took place from 07/17/2021, that is, on D136 of hospitalization. As they were performed every 2 or 3 days, depending on the duration of the special coverage in the region, considering that the patient had frequent bowel movements.

The protocol of Photodynamic Therapy (PDT) was adhered to, application of 2% methylene with the blue and photobiomodulation in length of the red wave (L1) at 9J, punctual every 1 cm along the entire length of the lesion.

### Methods:

The use of coverings was alternated, ranging from calcium alginate with silver, activated carbon with silver, high absorption foam with silver and, finally, hydrogel with alginate, in accordance with the availability of materials in the hospital. Mechanical debridement was used while there was the presence of slough, being dispensed with when there were laboratory changes in relation to the drop in platelets and hemoglobin. When available, irrigation with PHMB application of barrier cream in the perilesional region was also performed.

#### Results:

In the first approach, carried out on 07/17/2021, the lesion had approximately 30x25x07cm<sup>2</sup>, a large amount of exudate with a greenish-yellow appearance and no foul odor, with the presence of large amounts of slough and granulation tissue. After 12 sessions, there was a positive evolution of the wound in terms of size, tissues present, quantity and appearance of exudate.



Conclusion: It is concluded that the association of the photodynamic therapy protocol with appropriate dressings favors clinical improvement and better tissue repair of the lesions. Therefore, there is a need for greater knowledge of the therapy by health professionals to improve care.

## References:

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