



Use of antioxidants for treatment of chronic wounds.

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Oxidative stress present in damaged tissue is due to an excess of free radical levels and reactive oxygen and nitrogen species that are not well managed during the tissue repair process.

These radicals are produced by inflammatory cells that come to the damaged area as first line of antibacterial defense and as signaling molecules for the regulation and activation of wound healing.



Objective

The objective of this study was the improvement and evolution towards granulation of pressure ulcers presented by one patient.

Method

The lesions presented a torpid evolution in the inflammatory phase and were not responding to the treatments performed. It was decided to apply an antioxidant treatment in the pressure ulcers presented by the patient. This antioxidant treatment consisted in the use of an antioxidant wound dressing. Wound dressing changes were performed every 72 hours under the supervision of nurses. This treatment was maintained for two uninterrupted months.

Clinical case

- Normotensive hydrocephalus
- V-P valve carrier
- Dementia
- HTA
- Sarcopenia, global stiffness



Nursing Assessment

- Dependency for ABVD
- Dysphagia
- Low intake
- Double incontinence
- Barthel = 0
- Norton = 9
- Presence of several PU category II, III and IV



Torpid evolution
Increased odor
Change to silver dressings



Given the non-evolution of the wound and the permanence in the inflammatory phase, moist wound healing treatment was initiated with antioxidant wound dressing Reoxcare® with wound dressing changes every 72h under the supervision of nurses.

After one month of treatment:

- 1.5 and 2 cm reduction
- Abundant granulation tissue
- Low devitalized tissue
- Bad smell
- Abundant exudate



After two months of antioxidant treatment:

- Reduction of another 1 and 0.5 cm long.
- Reduction of cavitation that presented one of the lesions.
- Abundant exudate and the bad smell remain.
- Abundant granulation tissue.

After very favorable evolution, it was decided to switch from the antioxidant treatment and adjust the hydrocolloid hydrophilic treatment with silver ions every 72h.

Results

Pressure ulcers show significant improvement, achieving the disappearance of devitalized tissue and overcoming the inflammatory phase. The lesions also show a decrease in extension and depth. During the use of antioxidant wound dressing there is an increase of exudate and bad smell.

Conclusions

The use of local antioxidants in the pressure ulcers presented by the patient has been an appropriate method for its correct evolution. The antioxidant wound dressing used is easy to apply and handle. The lesions turn out to be more exudative and give off a bad smell during the use of antioxidants.