Reoxcare

MAXIMIZING THE NATURAL WOUND HEALING PROCESS

ANTIOXIDANT WOUND DRESSING

Diabetic foot ulcer Clinical evidence

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REGENERATIVE MEDICINE

CE 0318

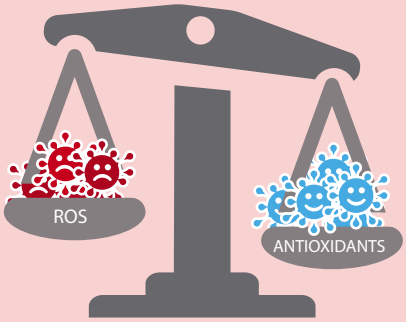
Information aimed at health professionals

Diabetic patients and oxidative stress

Several pathogenic events that characterize diabetes disease result in an oxidative stress situation.

Diabetic patients produce higher levels of reactive oxygen species and their physiological antioxidant defenses are reduced.
Therefore, patients with diabetic foot ulcers have higher levels of oxidative stress [1].

This causes a persistent inflammatory situation and therefore the chronification of the ulcer [1].



Oxidative stress and wound healing

Control of oxidative stress in wounds is a key aspect to achieve activation of hard-to-heal wounds [2].

The excess of free radicals induces the expression of proinflammatory cytokines and matrix metalloproteases as well as cell senescence, contributing to the arrest of the healing process [2].

Control of oxidative stress in wounds is an essential aspect to overcome the inflammatory phase, especially in patients with important basal diseases that affect the healing process.

Due to its antioxidant properties, Reoxcare has demonstrated to be particularly effective on diabetic foot ulcers.

(1) Vairamon SJ, Babu M, Viswanathan V. Oxidative stress markers regulating the healing of foot ulcers in patients with type 2 diabetes. Wounds. 2009 Oct;21(10):273-9.
(2) Schäfer M, Werner S. Oxidative stress in normal and impaired wound repair. Pharmacol Res 2008;58:165–171.

What are the effects of Reoxcare on diabetic foot ulcers?

Reoxcare combines the management of the exudate with its detoxification.

Thanks to its antioxidant composition, Reoxcare neutralizes the excess of reactive oxygen species (ROS) in the wound exudate, allowing the activation of the wound and the progress to the following stages of healing process:

- Elimination of non-viable soft tissues and biofilm control.
- Induction of the formation of excellent granulation tissue.
- Activation and advancement of perilesional edges.

Conclusions

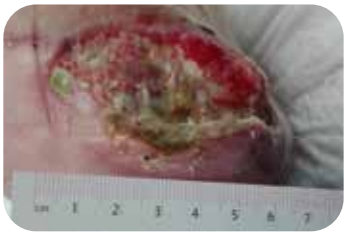
- Reoxcare is an effective treatment for diabetic foot ulcers.
- Reoxcare has an excellent debridement capacity both osmotic and autolytic.
- Reoxcare prevents the chronification of diabetic foot ulcers.
- Reoxcare avoids biofilm interaction in the healing process.
- Reoxcare activates diabetic foot ulcers, obtaining an optimal wound bed that favours the natural healing process.
- Reoxcare increases the patient's well-being by relieving pain in the wound.

77-year-old patient with type II Diabetes Mellitus, grade IV chronic ischemia. Wound on left lower limb after Chopart´s amputation.

1 month in evolution.

Previous treatment
Conventional moist wound healing dressings.

Treatment with Reoxcare
Reoxcare + hydrofibre foam with silicone border with dressing changes twice a week until wound closure (week 22).

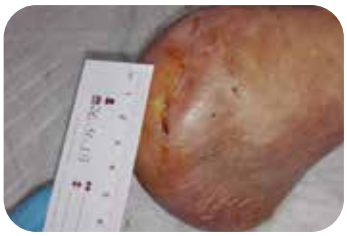

Beginning


Week 1


Week 2


Week 5


Week 7

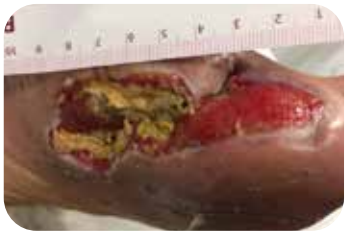

Week 22

43-year-old patient with type I Diabetes Mellitus with inadequate glycaemic control and continuous bilateral plantar paresthesia. Diabetic foot ulcer after left toe amputation.

6 weeks in evolution.

Previous treatment
Negative Pressure Wound Therapy.

Treatment with Reoxcare
Reoxcare + hydrofibre foam with silicone border with dressing changes twice a week until wound closure.


Beginning


Week 2


Week 3

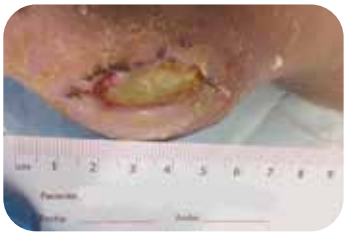

Week 6

55-year-old patient with type I Diabetes Mellitus and inadequate glycaemic control, hypertension and dyslipidemia.
Diabetic foot ulcer located on right foot with non-viable tissues.

7 weeks in evolution.

Previous treatment
Conventional moist wound healing dressings.

Treatment with Reoxcare
Reoxcare + hydrofibre foam with silicone border with dressing changes twice a week until wound closure (week 23).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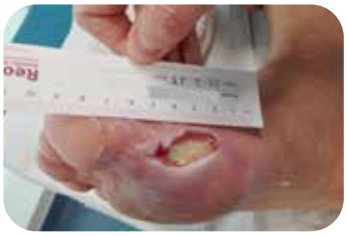

Week 2


Week 8


Week 12


Week 20


Week 23

59-year-old patient with hypertension, dyslipidemia and Diabetes Mellitus.
Wound located on left foot after amputation of one toe.

2 weeks in evolution.

Previous treatment
Conventional moist wound healing dressings and Negative Pressure Wound Therapy.

Treatment with Reoxcare
Reoxcare + hydrofibre foam with silicone border with dressing changes twice a week until wound closure (week 8).


Beginning


Week 2


Week 3

Week 4


Week 5


Week 8

37-year-old patient with type II Diabetes Mellitus. Wound on right foot after toe amputation. Sloughy tissue in the wound bed and inflammation.

3 months in evolution.

Previous treatment
Collagenase and hydrocellular dressings.

Treatment with Reoxcare
Reoxcare + hydrofibre foam with silicone border with dressing changes twice a week until wound closure (week 12).


Beginning


Week 1


Week 1


Week 5


Week 7


Week 13

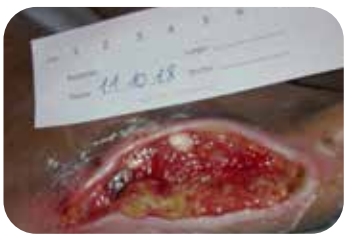
75-year-old patient with hypertension, dyslipidemia and type II Diabetes Mellitus.
Wound located on right foot.

4 weeks in evolution.

Previous treatment
Negative Pressure Wound Therapy.

Treatment with Reoxcare
Reoxcare + hydrofibre foam with silicone border with dressing changes twice a week until wound closure (week 7).


Beginning


Week 1


Week 2


Week 4


Week 5


Week 7

73-year-old patient with hypertension, dyslipidemia, type II Diabetes Mellitus and complex arrhythmia due to atrial fibrillation.
Wound located on left foot.

1 month in evolution.

Previous treatment
Negative Pressure Wound Therapy.

Treatment with Reoxcare
Reoxcare + hydrofibre foam with silicone border with dressing changes twice a week until wound closure (week 9).


Beginning


Week 1


Week 2


Week 3


Week 5


Week 8

63-year-old patient with hypertension, dyslipidemia, grade IV chronic ischemia and type II Diabetes Mellitus with inadequate glycaemic control. Wound after toe amputation and surgical debridement.

2 months in evolution.

Previous treatment
Negative Pressure Wound Therapy.

Treatment with Reoxcare
Reoxcare + hydrofibre foam with silicone border with dressing changes twice a week.


Beginning


Week 1


Week 3


Week 4


Week 5


Week 13

Scientific publications and references

- Jiménez García JF, Abad García MM, Ortiz Villegas L, Zarco Marín JM, Expósito Torres R, García Fernández FP. Cicatrización de úlceras venosas complejas mediante el control del estrés oxidativo . Rev ROL Enferm 2018; 41(11-12).
- Castro B, Bastida FD, Segovia T, López Casanova P, Soldevilla JJ, Verdú-Soriano J. The use of an antioxidant dressing on hard-to-heal wounds: a multicentre, prospective case series. J Wound Care. 2017;26:742-50.
- Castro B, Palomares T, Azcoitia I, Bastida F, Del Olmo M, Soldevilla JJ, et al. Development and preclinical evaluation of a new galactomannan-based dressing with antioxidant properties for wound healing. Histol Histopathol. 2015;30:1499-512.
- Tessari M, Tessari L. A new natural antioxidant wound dressing in non-healing leg ulcers. Poster presentation. EWMA 29th Congress, Gothenburg, Sweden (June 2019).
- Jiménez García JF, Castro Feo B, Abad García MM, Porras Pastor JM, García Fernández FP. Control of oxidative stress to activate non-healing wounds: case series. Poster presentation. EWMA 29th Congress, Gothenburg, Sweden (June 2019).
- Basterretxea Ozamiz A, Castro Feo B, Larrazabal Arbaiza A, Pérez Zabala E, Aizpuru Martínez A, Pérez del Pecho C, Iglesias Sainz-Maza E, Arancón Vaquero JA. Adequate management of oxidative stress in wound environment significantly improves the healing of neuroischemic postsurgical diabetic foot ulcers. Poster presentation. 8th International Symposium on the Diabetic Foot, The Hague, The Netherlands (May 2019).
- Pérez del Pecho C, Larrazabal A, Pérez E, Aizpuru A, Basterretxea A, Iglesias E. Healing of post-operative diabetic foot ulcers of neuroischemic component through the control of oxidative stress: series of cases. Poster presentation. X Reunión Nacional Sección de Pie Diabético de la SEACV, Donostia-San Sebastián, Spain (December 2018).
- Agreda A, Fondo E, Castrillo C, Santiso E, Rodriguez V, Gómez R, Cerame S. Application of an antioxidant dressing in the healing of complex wounds from vascular etiology. Poster presentation. GNEAUPP XII Simposium, Valencia, Spain (November 2018).
- Jiménez García JF, Castro Feo B, Abad García MM, Porras Pastor JM, Ardit Lucas RA, García Fernández FP. Economic analysis of the effectiveness of a bioactive antioxidant dressing in chronic wounds. Poster presentation. GNEAUPP XII Simposium, Valencia, Spain (November 2018).
- Fondo E, Castrillón C, Santiso E, Gutiérrez N, Lopezosa A, de Agreda A, Harkot O, Novo E, Cerame S. Application of a new antioxidant treatment in the treatment of torpid venous wounds. Poster presentation. AEEVH XXX Congress, Madrid, Spain (June 2018).
- Jiménez García JF, Porras Pastor JM, Zarco Marín JM, García Romera EM, Sánchez Escandell MA, Castro Feo B. Novel antioxidant treatment that improves the healing of chronic wounds. Poster presentation. EWMA 28th Congress, Krakow, Poland (May 2018).
- Fondo Álvarez E, Santiso Casanova E, Harkot O, Castrillón Diaz C, Gutierrez Bandera N, García Jurado R, Cerame Perez S. Effect of a new antioxidant dressing on the activation of chronic wounds. Poster presentation. SEHER 7th Congress, Madrid, Spain (February 2018).
- Arizmendi Pérez M, Sánchez de Luna Rodríguez M. New antioxidant wound dressing healing effect on vascular ulcers. Poster presentation. AEEVH XXIX Congress, Gijón, Spain (June 2017).
- Arizmendi Pérez M., Sánchez de Luna Rodríguez M, López García E, Moreno Martín M. Healing efficacy of a new antioxidant wound dressing in ischemic wounds. Poster presentation. SEHER 6th Congress, Madrid, Spain (February 2017).
- Clinical trial EC-HR006.01. Clinical evaluation of HR006 antioxidant dressing for the treatment of chronic wounds - a multicentre prospective case series study.
- Clinical trial EC-REOXCARE.UPD. Proof of concept: prospective study of antioxidant wound dressing Reoxcare to improve healing in diabetic foot ulcers.
- Clinical trial EC-REOXCARE.UPP. Proof of concept: prospective study of antioxidant wound dressing Reoxcare to improve healing in pressure ulcers.
- Instructions for use.

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CAT-AWD-003/V02