

Comparison of a novel non-medicated bacteria-binding dressing to silver dressings in the management of acute and chronic skin lesions

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Introduction

The need to control infectious complications in chronic skin lesions of the lower limbs and acute traumatic injury was the basis of this comparison work between silver dressings and a novel highly hydrophobic bacteria-binding dressing coated with dialkylcarbamoylchloride (DACC), Cutimed® Sorbact® Gel.

Methods and Materials

A total of 40 patients with chronic skin lesions of the lower limbs and 40 with acute trauma (75% of them burns) were treated with dressings containing silver (50% of each group) or with Cutimed® Sorbact® Gel, a DACC-coated dressing impregnated with a hydrogel (50%), randomly selected. Each wound was evaluated for signs of clinical infection and pain levels were assessed by VAS. Patients were clinically observed until wounds were healed or for a total time of 4 months.

Results

In almost all patients (2 drop-outs) the use of Cutimed® Sorbact® Gel led to a good control of bacterial load in both types of lesion, without any complication by infection. In the group treated with silver dressings, 12 patients developed signs of infection (2 drop-outs). Additionally, the DACC-coated dressings, unlike those based on silver, allowed atraumatic removal in all cases.

Here, the clinical cases of three patients from the group treated with Cutimed® Sorbact® Gel are presented.

Conclusion

The use of bacteria-binding DACC-coated dressings (Cutimed® Sorbact® Gel) has shown excellent results in the control of bacterial load, even better than those obtained with the application of silver dressings.

Especially in the treatment of acute post-traumatic injuries (particularly burns), patients treated with the bacteria-binding DACC-dressing recorded a greater decrease in pain (mean VAS: 4) in comparison to patients treated with silver dressings (mean VAS: 8). In addition, the healing process of wounds treated with bacteria-binding dressings was accelerated compared to wounds treated with silver dressings (average of 12 days versus 20 days).

PATIENT 1



Fig. 1: Pressure ulcer at the right trochanter, treated for more than 2 months with silver dressings. Traces of silver in the wound and on the surrounding skin visible.

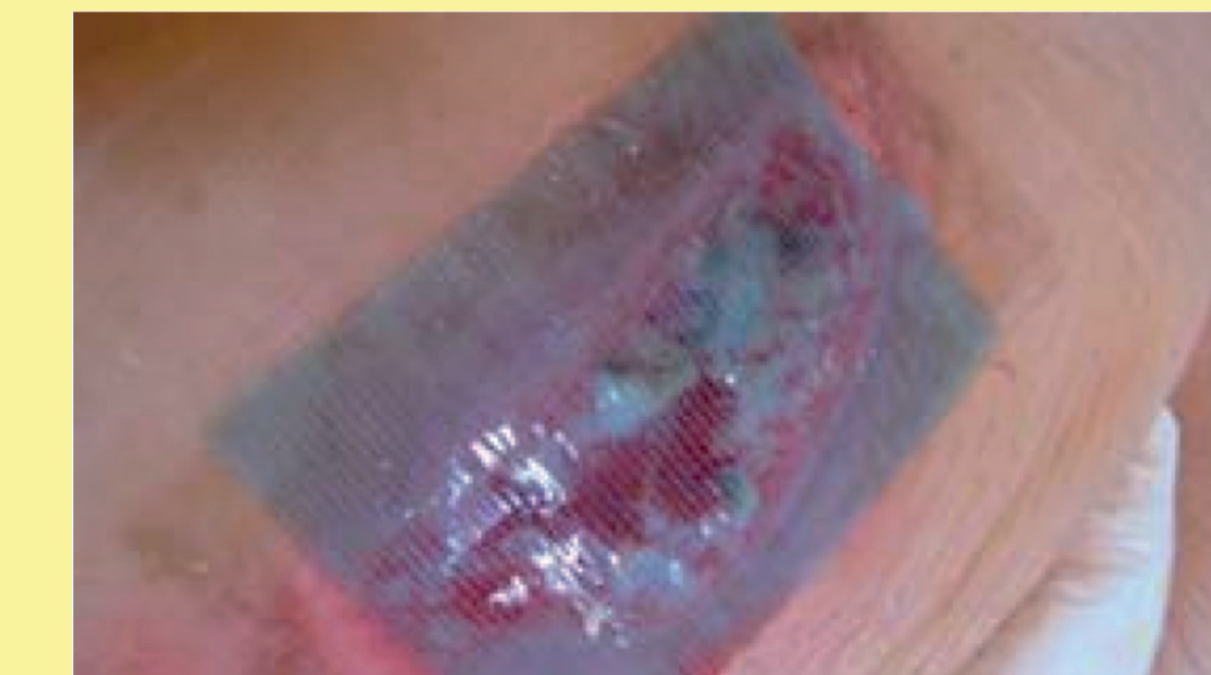


Fig. 2: The wound was debrided and cleaned. In the following the wound was treated with the DACC-coated dressing Cutimed® Sorbact® Gel twice a week.



Fig. 3: After two weeks of treatment with Cutimed® Sorbact® Gel, the wound shows much less slough and large areas of granulation tissue can be seen.



Fig. 4: After one month the wound is almost completely healed.

PATIENT 2

The patient presented with a chronic mixed ulcer at the right leg with large areas of necrotic tissue. Due to the intake of oral anticoagulant and the absence of compliance the patient could not be treated surgically. Treatment with a silver containing dressing caused an allergic reaction. Thus, the wound was treated with the bacteria-binding dressing Cutimed® Sorbact® Gel.



Fig. 1: Treatment with Cutimed® Sorbact® Gel was started after a silver containing dressing caused an allergic reaction.



Fig. 2: Debridement was performed after 3 weeks



Fig. 3: Complete cleaning of the wound and progress of the healing process after other 3 weeks.

PATIENT 3



Fig. 1: 2nd degree burns on the right foot with dry necrotic tissue.



Fig. 2: After a week of treatment with Cutimed® Sorbact® Gel every two days complete debridement of the wound was achieved.



Fig. 3: After two weeks of treatment with Cutimed® Sorbact® Gel, the wound is clean and granulating tissue is visible without any signs of infection or other complications.



Fig. 4: After 40 days the wound is almost completely healed.