

Research Compact

Tags

Wound healing, Octenidine, Wound gel

Title

Efficacy and cost-effectiveness of octenidine wound gel in the treatment of chronic venous leg ulcers in comparison to modern wound dressings

Authors

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Source

2016, International Wound Journal, <https://doi.org/10.1111/iwj.12250>

Aim of the study

Chronic venous leg ulcers are the most common chronic wounds of the lower extremities and require time-consuming as well as costly treatments. Often, expensive dressings with silver ions are used to promote wound healing without clear evidence of their benefit. This study investigates the effect of octenidine based wound gel (OCT), modern wound dressing, and the combination of both on the amount of granulation tissue (primary endpoint), the percent change in the size of the wound area and treatment costs (secondary endpoints) in venous leg ulcers. When the OCT based gel was used alone, the wound was covered with non-adhering contact layer.

Methods

49 wounds were treated with either OCT based wound gel (and a non-adhering wound contact layer), modern wound dressing, or a combination of both over a period of 42 days. Dressing changes were performed every 3-5 days. Various parameters, including the amount of granulation tissue, wound size, and costs of the dressing changes were collected on day 0, 3, 5, 12, 26 and 42.

Results

The size of the wound area was significantly reduced by both treatments including OCT than with classic wound dressing alone. After 42 days, a 96.2% reduction of the wound area was achieved across all (n = 15) wounds treated with OCT alone (Figure 2). A complete wound healing occurred in 7 of 15 patients in the OCT group compared to the wound dressing treatment group where no complete healing of venous leg ulcers was observed. Almost entire granulation of the wound was demonstrated at the end of the study with OCT (Figure 1). In addition, the total treatment costs with OCT per patient were 27 % less expensive compared to the wound dressing.

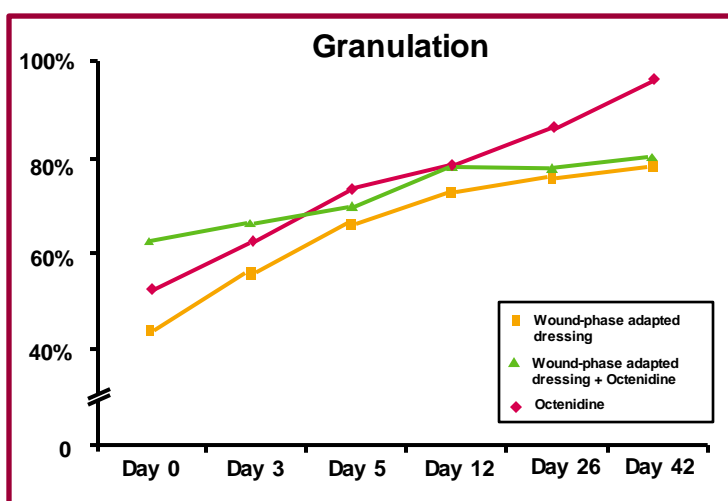


Figure 1: Formation of granulation tissue over the course of the study in patients with chronic venous leg ulcer.

Adapted from Figure 3 - Hämmerle & Strohal 2016

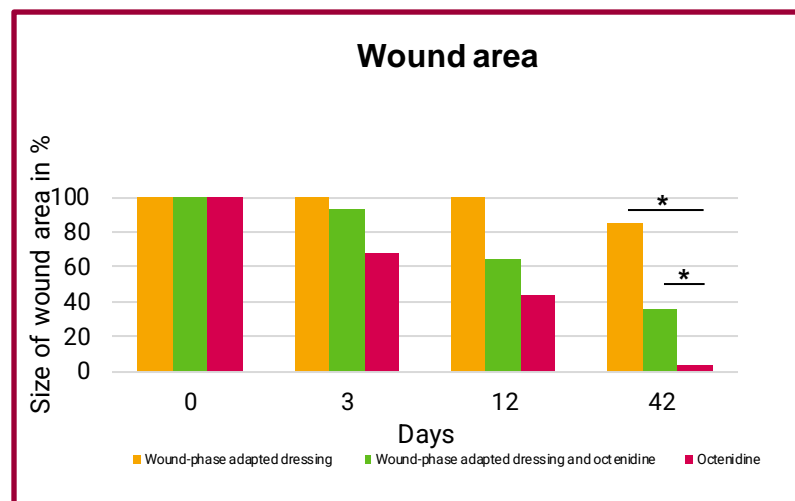


Figure 2: Relative wound area of the treatment arms.

Adapted from Table 1 – Hämmerle & Strohal 2016

Conclusion

The treatment of chronic leg ulcers with a wound gel containing octenidine leads to faster wound healing due to the greater reduction in the bacterial load and the faster formation of granulation tissue. Furthermore, it is also less expensive compared to modern wound dressings.