

EVALUATION OF BIOPHOTONIC THERAPY IN A NON-HEALING DIABETIC FOOT ULCER: A CASE REPORT

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INTRODUCTION

Diabetic foot ulcers (DFU) with consequent morbidity, resource utilization and loss of quality of life for patients is an important medical challenge. In this case report, a 68-year-old male with a 10-year history of type 2 diabetes DFU case treated with Lumiheal® Fluorescent Light Energy (FLE) system is described. The patient was presented with an 18-week history of a non-healing ulcer on his left foot with severe vascular compromise and a previous contralateral limb amputation.

RESULTS AND DISCUSSION

- The patient underwent bi-weekly treatments for 8 weeks, 1 week stop and then further bi-weekly treatments for 14 weeks.
- Wound parameters at the initial evaluation: surface area 1.4 cm²; perimeter 44 mm; depth 5 mm (**Fig. 1**).
- At week 12, it showed a 44% reduction in wound size vs baseline (**Fig. 2**).
- Wound parameters at the end of the treatment cycle: surface area 0.3 cm²; perimeter 23 mm; depth approx. 1mm, not measurable by the device (**Fig. 3**).
- The wound closed completely in the 2 weeks following cessation of treatments.



Fig. 1. Initial evaluation



Fig. 2. Week 12



Fig. 3. End of the treatment

- Evaluation of the wound surface area during the study period demonstrated a major decrease in surface area beginning at week 10 (**Fig. 4**).

SAFETY

During the treatment period, the patient did not experience any treatment-related adverse events.

CONCLUSIONS

FLE system helps wound management through multiple actions. The net result is a synergistic effect of a healthier bacterial wound environment and proliferation of cells leading to collagen deposition.

For more information and before/after pictures, visit the original [publication](#).

