



(CASE REPORT)



Non-healing ulcer on great toe treated with ADM

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Abstract

Foot ulcers are a common complication of diabetes that is not being managed through methods such as diet, exercise, and insulin treatment. Ulcers are formed as a result of skin tissue breaking down and exposing the layers underneath.

The management and successful treatment of diabetic wounds represents a significant therapeutic challenge. To this end, the development of novel therapies and biological dressings has gained increased interest.

Acellular matrix therapy has shown promise in the treatment of diabetic foot ulcers (DFUs) in several studies.

Keywords: Wound healing; Diabetes; Chronic wounds; Skin substitutes; Skin dressings; Matrices

1. Introduction

Diabetic ulcer on big toes is difficult to treat various surgical procedures like skin grafts and flaps have been tried. Skin Grafts break down early and there is difficulty in taking up [1-10].

1.1. The case

Patient 50-year-old female, with diabetes mellitus, with non-healing ulcer (1.5 cm x 1.5 cm) on great toe of right foot for 3 years (Fig.1).

She got multiple treatment for that (skin graft, ...). There was continuous discharge and intermittent swelling around ulcer area.

1.2. Treatment

Ulcer was debrided (WBP) and acellular dermis (Dermacell AWM) was applied (Fig. 2). Over the next month patient wound became totally dry and healed up (Fig. 4).

Uneventful post-operative course with no swelling or major exudates.

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Figure 1 Pre-op



Figure 2 1 week post-op



Figure 3 3 weeks post-op



Figure 4 4 weeks post-op

2. Discussion

Skin Graft failed. Local flaps are very limited and difficult to execute specially in ischemic areas. Acellular Dermis (Dermacell AWM) is a very good option for such patients and gives excellent healing without any further surgical intervention. Use of Derrnacell AWM was successful in treating chronic diabetic foot ulcer Dermacell AWM is registered by LifeNet Health, Virginia Beach, USA.

3. Conclusion

Progressive reduction in wound length and width over approximately one month

- The wound's area and volume had significant reductions of 92.4%
- Reduction in all dimensions, including depth, were observed after one week post-application of ADM
- In this case study, ADM was successfully used to provide wound resurfacing to correct a great toe diabetic ulcer

Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

The Authors declare that there is no actual or potential conflict of interest in relation to this case study.

Statement of informed consent

Informed consent was obtained from the participant included in the study.

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