

Case Series Using Ovine Extracellular Matrix for the Correction of Stalled Wounds

James Stillerman, MD

Samaritan Wound Care Center, Watertown, NY

Introduction

Stalled wounds have a limited capacity for remodelling, partly due to missing or damaged extracellular matrix (ECM). For such wounds ECM scaffolds may improve the rate of tissue regrowth and promote wound closure. An ovine derived ECM† can function as a temporary scaffold to replace missing or damaged ECM. This prospective study was conducted to determine the efficacy of clinical applications of ovine derived ECM in a variety of stalled wounds.

Methods

Wounds of three patients were managed using weekly applications of ovine ECM in combination with GV/MB* for a duration of 7 to 9 weeks.

Conclusions

The application of ovine derived ECM resulted in reduction in wound size and enhanced granulation and epithelial tissue. At 4 weeks the average size of the wounds had reduced by approximately 39%. The ovine ECM technology is a valuable addition to the wound healing tool kit.

References and Disclosures

Financial support was provided by Aroa Biosurgery Limited (New Zealand)

*Endoform Natural Dermal Template; †Hydrofera Blue; ww.appulsemed.com

Results

Case Study 1

Patient: 67 year old male
Medical History: Neuropathic diabetic with a below knee amputation on right side, chronic osteomyelitis
Wound Description: Wagner grade 3 DFU on left foot (2 years old)
Previous Treatments: Surgical debridement, wound stalled post-op

Week 0:
 6.4 x 2.8 cm.
 Hyperkerototic wound edge, pale pink centre.
 ECM, GV/MB, crow walker.



Week 2:
 6.4 x 4 cm.
 Red granulation tissue.
 ECM, GV/MB, crow walker.



Week 8:
 5.7 x 2.7 cm.
 Granulation tissue, ECM incorporation.
 ECM, GV/MB.
 Wound size reduced by 14%



Case Study 2

Patient: 47 year old female
Medical History: Neuropathic diabetic
Wound Description: Third degree burn compounded by Wagner 3 DFU (3-4 years old)
Previous Treatments: GV/MB, foam, weekly debridement

Week 0:
 6 x 1.1 cm.
 ECM, GV/MB, off loading shoe.



Week 2:
 2.2 x 0.3 cm.
 ECM, GV/MB, off loading shoe.



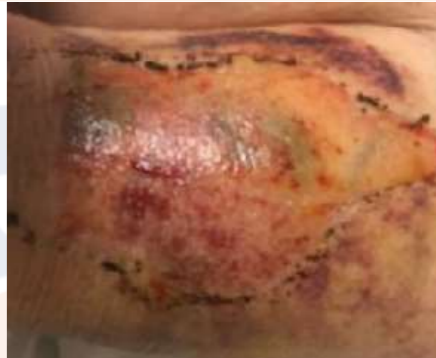
Week 6:
 Wound closed



Case Study 3

Patient: 81 year old male
Wound Description: Skin tear Payne-Martin III (2 weeks old)

Week 0:
 10 x 6.7 cm.
 Debridement, ECM, GV/MB.



Week 5:
 6.6 x 3.4 cm.
 ECM incorporation, epithelial cells forming.
 ECM, GV/MB.



Week 7:
 5.1 x 3.7 cm.
 Epithelial tissue.
 ECM, GV/MB.
 Wound size reduced by 72%

