

# Ovine Forestomach Matrix in the Management of a Complicated Abdominal Surgical Dehiscence

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## INTRODUCTION

Surgical site infections (SSI) can be a significant complication for patients undergoing abdominal wall reconstructions such as ventral hernia repair. Further, due to the large number of surgical procedures conducted annually, the costs of these SSIs can be considerable in financial and social terms [1]. Management of post-operative abscesses can lead to long hospital stays, multiple surgical procedures, prolonged healing times, recurrent infections, sepsis, and significant negative impact to patient quality of life. The use of extracellular matrices in the management of these complications has not been well studied. In this case, ovine forestomach matrix (OFM) was utilized to immediately cover exposed vital structures, provide a scaffold for volumetric fill of missing soft tissue, and the shorten time to final closure.

## PATIENT HISTORY AND SURGICAL METHOD

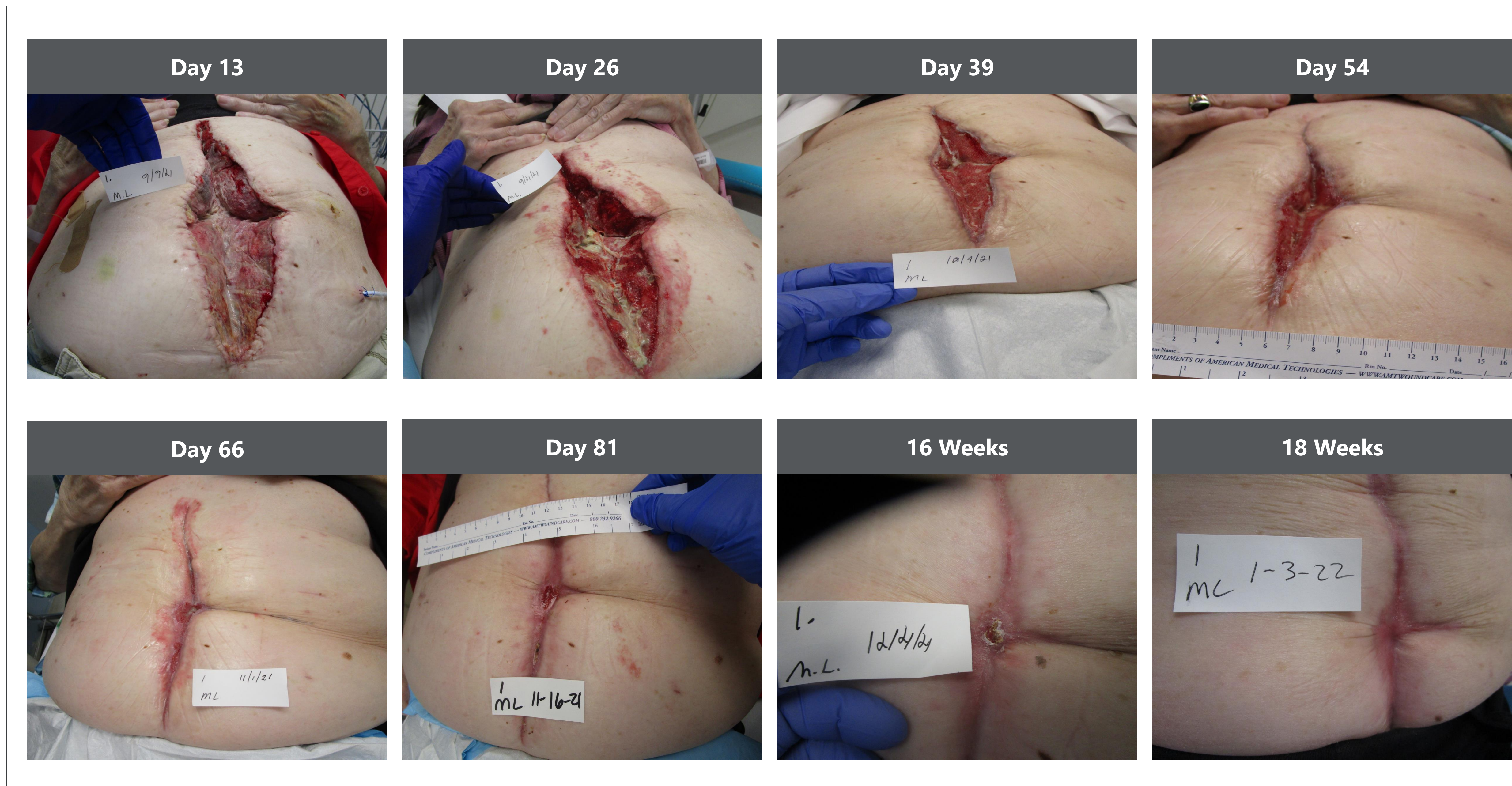
A 75-year-old female presented with a SSI nine days after revision ventral hernia repair requiring surgical washout and debridement. The resulting volumetric soft tissue defect was approximately 884 cm<sup>3</sup>. OFM particulate<sup>^</sup> was applied to the irregular wound bed and OFM graft\* applied subsequently and secured with sutures. Negative pressure wound therapy (NPWT) was utilized with the addition of a non-adherent layer.

## RESULTS

On post operative day 26 the patient developed an MRSA infection, and the graft was left in place. The patient was started on Clindamycin and had three days of Dakin gauze soaks. By day 39, the wound had achieved a 50% PAR and a single-layer of antimicrobial OFM<sup>†</sup> was applied weekly in the office till closure. The patient achieved 100% epithelization by week 16, no further complications and no recurrence of infection.

## DISCUSSION

These promising results of a complicated abdominal SSI highlights the use of OFM-based products to facilitate the body's ability to build volumetric, functional tissue in contaminated wound beds.



## REFERENCES AND DISCLOSURES

\*Myriad™ Matrix, ^Myriad Morcells™, †Endoform Antimicrobial™, Aroa Biosurgery Ltd, Auckland, NZ. Dr. Canfield and Ryan Kemp have consultancy agreements with Aroa Biosurgery Limited. [1] Liu, Z., J. C. Dumville, G. Norman, M. J. Westby, J. Blazeby, E. McFarlane, N. J. Welton, L. O'Connor, J. Cawthorne, R. P. George, E. J. Crosbie, A. D. Rithalia and H. Y. Cheng (2018). "Intraoperative interventions for preventing surgical site infection: an overview of Cochrane Reviews." *Cochrane Database Syst Rev* 2: CD012653.