

# Application of Fragmented Fish Skin Graft\* (FSG) in a Bed-Bound Patient with a Chronic Sacral Ulceration

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## INTRODUCTION

Fish skin graft (FSG) is a novel product derived from Atlantic cod fish and has proven to augment acute and chronic wound healing<sup>3,4</sup>. Therefore, the purpose of this case is to evaluate FSG in a patient with a chronic sacral ulceration which had not responded to conservative wound care. Standard of care had been applied using iodorsorb ointment and bordered foam three times a week for over two months without response. Patient had experienced significant weight loss and was on hospice and bed-bound.

## METHODS

Patient is an 85-year-old female that presented with a three-month-old chronic sacral ulcer that had failed conservative wound care. Inflammatory markers for osteomyelitis were negative along with the culture. Patient underwent wound bed preparation and application of fragmented FSG MariGen Micro 4cm<sup>2</sup>. The wound was covered with bordered foam dressing. Patient was seen regularly until full closure of the wound was achieved.

## REFERENCES

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\*Kerecis®, Kerecis, Isafjordur, Iceland

## RESULTS

Wound was evaluated regularly after application of fragmented FSG. (Initial wound size: 0.8 cm x 0.4 cm x 0.4 cm.) Two weeks after application, wound had achieved complete closure. Subsequent evaluations confirmed successful remodeling and stability of wound.

## DISCUSSION

The benefit of fragmented fish skin graft is evident even in cases which normally would not be considered for its use. In this case, a patient with protein malnutrition at high risk for chronic wounds and osteomyelitis, as evidenced by the failure to heal using conservative methods, underwent treatment with piscine skin substitute and experienced subsequent closure within two weeks of application. This patient went on to live for another nine months prior to expiring. The cost of decreased wound care and patient suffering in this situation was immeasurable.

## CASE: 85-YEAR-OLD FEMALE CHRONIC SACRAL ULCERATION

Patient History: 85-year-old female with comorbidities significant for protein malnutrition, Alzheimer's disease, and hypothyroidism.

Wound History: Patient presented with a three-month-old chronic sacral ulceration.

Kerecis Applications: Single application of fragmented fish skin graft (MariGen Micro 4cm<sup>2</sup>).

Patient Outcomes: Wound achieved complete closure within two weeks after application of fragmented fish skin graft.



Initial Presentation with standard of care (12/22/2022)



Fragmented FSG application (2/4/2023)  
Wound size: 0.8 cm x 0.4 cm x 0.4 cm



Week 2 Follow-up (2/17/2023)



Week 4 Follow-up (3/1/2023)  
Wound size: 0.8 cm x 0.25 cm



Week 7 Follow-up (3/6/2023)  
Wound size: 0.3 cm x 0.2 cm



Week 11 Follow-up (4/10/2023)  
Final healing outcome



Fragmented fish skin graft