KERECIS®

Burn Cases

Fish skin application for burn wounds

About Kerecis

Kerecis fish skin is homologous to human skin[17], and is used to support tissue regeneration and repair.[2] Kerecis fish skin products are FDA cleared for multiple clinical applications.

Because no known viral transfer risk exists between Atlantic Cod and humans, the fish skin needs only mild processing. Our proprietary manufacturing method preserves the skin's natural qualities, including its three-dimensional structure, mechanical properties, molecular organization, and composition.[2,3]

When grafted onto damaged human tissue, such as a burn or a wound, the fish skin recruits the body's own cells, supporting the ability to regenerate.[1]

The superior clinical and economic performance of Kerecis fish skin has been demonstrated in multiple blinded, randomized, controlled clinical trials [3,4,5] and numerous other clinical studies.[6-13, 15] Since there are no known religious or cultural barriers associated with Kerecis products, they can help diverse communities.[14]

CONTRAINDICATIONS

Kerecis should not be used in patients with known fish allergies.

Kerecis Mechanism of Action

Key factors for an optimal tissue replacement product are recognized to be a product that has had it's cells removed, and a native structure that is not affected or altered by the applied treatment process, thereby retaining its overall lipid content, ECM biochemical composition, structure, and complexity.[1]

THREE-DIMENSIONAL STRUCTURE

Intact structure provides a framework to support tissue regeneration[16]

PRESERVED MOLECULAR CONTENT

Chemical complexity of the fish skin provides the ideal environment for wound healing[1]

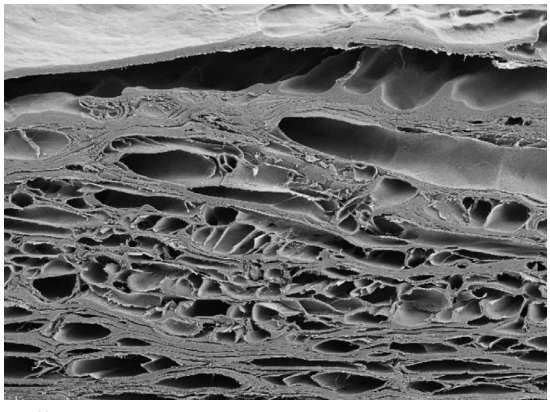
NATURAL MECHANICAL PROPERTIES

Naturally strong, handles like skin, and easy to suture or staple[3]

INTACT MOLECULAR ORGANIZATION

Fish skin is homologous to human skin[17]

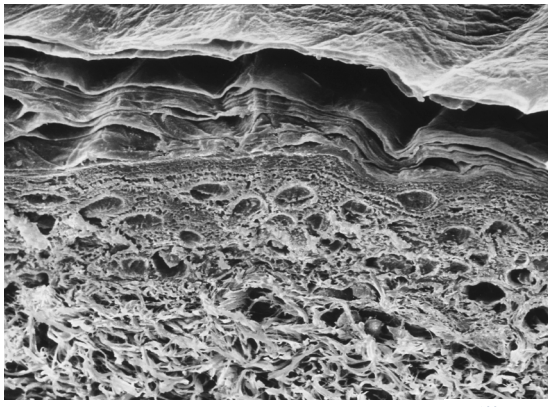
Fish Skin



Epidermis

Dermis

Human Skin



CASE FROM

Dr. Alfredo Cordova, MD, FACS, FAAST

PATIENT PRESENTATION

- 28-year-old male with schizophrenia
- Poured gasoline on himself and set himself on fire
- Sustained 93% total body surface area (TBSA) full-thickness burns

PREVIOUS MANAGEMENT

Allograft

APPLICATION

Kerecis Meshed 2:1 Graft

CLINICAL OUTCOME

Intact fish skin integration and adequate granulation tissue was evidenced in 95% of the surface area as early as 10 days after product application. Patient was later resurfaced with widely meshed (6:1) split thickness autograft and cultured epithelial autograft (CEA).

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INITIAL PRESENTATION 93% TBSA burns sustained. Needed to be resuscitated

DAY 0 Underwent fascial excision and initially resurfacing with allograft to his anterior trunk and bilateral lower extremities. Concurrent Management" BTM, RECELL, Meeks micrograting 9:1, Suprathel

DAY 0 Allografts became slimy and heavily colonized

DAY 0 Allografts removed and Kerecis was placed

DAY 15 Multiple Kerecis 300cm^2 Meshed 2:1 grafts applied

DAY 27 Good epithelialization. Wound beds optimal for grafting, widely meshed (6:1) split thickness autograft and cultured epithelial autograft applied and healing with no complications

CASE FROM

Jason M. Bregg, MD

PATIENT PRESENTATION

- 39-year-old male
- Presented with 4% total body surface area (TBSA) deep partial-thickness thermal burn

PREVIOUS MANAGEMENT

Presented to the burn center on the same day as the injury with no previous treatment reported.

APPLICATION

The wound was debrided using dermabrasion, and GraftGuide Mano (Size L) was applied to cover the dorsal aspect of the right hand. The product was secured in place, and a secondary dressing was applied.

CLINICAL OUTCOME

Single application of GraftGuide Mano resulted in good secondary intention healing for the patient without the need of autograft. Good functional outcome with no evidence of scar contracture.

INITIAL PRESENTATION Same day, post burn injury, prior to fish skin application

DAY 2
Pre-debridement

DAY 2
Excisional debridement with dermatome

INTRA-OP
Application of GraftGuide Mano

DAY 5 Product has almost incorporated fully into the wound bed. No signs of infection

DAY 17 Full epithelialization without the need for a split thickness skin graft

CASE FROM

Ariel Aballay, MD

PATIENT PRESENTATION

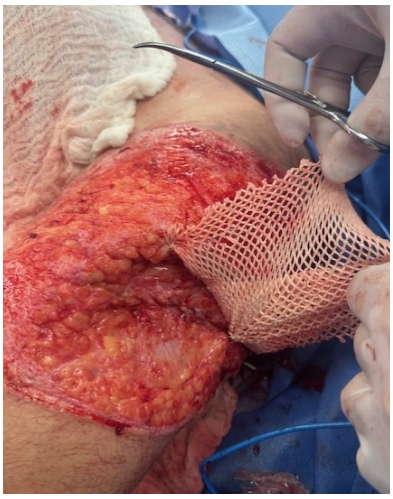
- 35-year-old male
- Previous medical history of Afib
- Patient experienced a high voltage electrical injury (7200 V) at work.
- He experienced 15% TBSA burns, mostly full thickness with severe loss of tissue on the left shoulder

APPLICATION

Kerecis Meshed 2:1 Graft was applied to the wound. A biopsy was taken and the wounds were redressed.

CLINICAL OUTCOME

The use of fish skin allowed this patient to progress to healing. Note that provider performed a biopsy which indicated structure formed within fish skin graft is indistinguishable from naturally occurring granulation tissue.



INITIAL PRESENTATION

Kerecis Meshed 2:1 Graft Application

5 days post application

FINAL PRESENTATION

CASE FROM

Richard Ehrlichman, MD

PATIENT PRESENTATION

- 67-year-old male
- Patient sustained a dorsal foot burn 3 weeks before admission presented with cellulitis
- The 13 x 12 cm wound was excised and covered with Kerecis meshed 2:1 Graft

APPLICATION

Kerecis Meshed 2:1 Graft was placed over the wound with a VAC.

CLINICAL OUTCOME

The wounds covered by Kerecis Meshed 2:1 Graft remained clean, the patient was comfortable.

There was excellent granulation tissue presented without infection.

INITIAL PRESENTATION

DAY 1
Application of Kerecis Meshed 2:1 Graft

5 days post application

FINAL PRESENTATION
16 days later

CASE FROM

Ram Velamuri, MD, FACS, MS, DNB, MRCS-Ed

PATIENT PRESENTATION

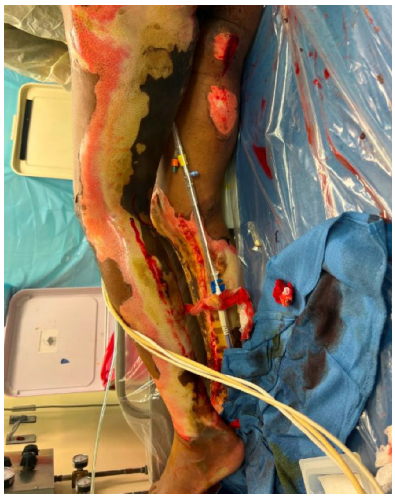
- 51-year-old male
- 3rd degree burn
- 40% TBSA

APPLICATION

Graftguide Meshed 2:1 was applied

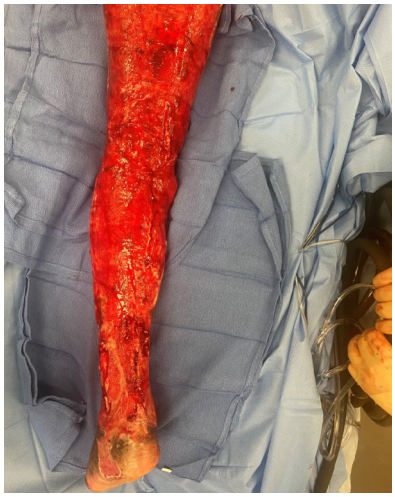
CLINICAL OUTCOME

Patient was grafted and had a small pressure ulcer due to the ACE wraps that were used in rehab. One of his limbs was salvaged and the other was amputated but is able to successfully use his prosthetic and walk.



INITIAL PRESENTATION 40% TBSA

WEEK 1 BTM application. Patient developed infection and BTM product was removed. Kerecis was applied following this image.



2 WEEKS POST FIRST APPLICATION
Granulation tissue developed

FINAL PRESENTATION
1 month post STSG

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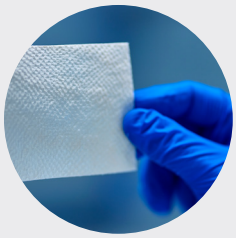
Sustainably Harvested in Iceland

Kerecis is pioneering the use of fish skin in the globally expanding cellular therapy and regenerative medicine market. It is the only approved manufacturer of fish-skin-based medical devices for tissue regeneration in the world.

Kerecis fish skin is a byproduct of fish processing in Iceland. The fish are caught from sustainable wild fishing stocks in the North Atlantic Ocean.

The Kerecis ISO 13485 manufacturing facilities are in the town of Isafjordur in the Westfjords region, 20 miles south of the Arctic Circle, and are powered exclusively by renewable energy.

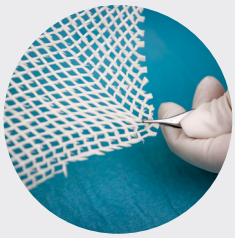
KERECIS PRODUCT VARIATIONS



Solid

Fenestrated

Fragmented



Meshed 2:1

Integral Silicone

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kerecis®

OUR VISION
To extend life by supporting the body's own ability to regenerate

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