

▶ MIAMNION® DUAL AUTOGRAFT DONOR SITE

CASE STUDY

MIAMNION®

Autograft donor sites are typically easy to manage but can be a challenge for patients with slow or compromised healing. The practice mentioned in this case study uses VIVEX® Biologics MIAMNION Dual Amnion tissue allograft to treat slow healing donor sites. The MIAMNION Dual Amnion tissue allograft has 2 layers of amnion. The innate nutrient-rich endogenous growth factors present in the tissue are preserved using VIVEX's Integrity Processing method. This allograft provides a barrier and provides mechanical protection to the damaged tissue.^{1,2,3} The MIAMNION Dual Amnion tissue allograft can be held in place with dermal glue. The practice has seen favorable outcomes with a single MIAMNION Dual Amnion application.

This case is an example of the practice's experiences with the VIVEX Biologics MIAMNION Dual Amnion tissue allograft in managing autograft donor sites.

▶ CLINICAL HISTORY

A 62-year-old male was admitted after an electrocution. He underwent amputation of his right upper extremity and grafting of full thickness defects on the lower extremities. Two weeks post-op, the autograft donor site was not healing after the application of sprayed epidermal autografts. The focus of this case study will be on the treatment of autograft donor site.



2 Weeks Post
Autograft
Harvest

▶ APPLICATION OF VIVEX BIOLOGICS MIAMNION DUAL AMNION TISSUE ALLOGRAFT

Due to the slow healing of the autograft donor site, a MIAMNION Dual Amnion tissue allograft was applied. We used dermal glue to secure the MIAMNION Dual Amnion in place, applied Bacitracin over the amnion tissue to maintain moisture, and did not need an external dressing.



MIAMNION
Application
with Dermal
Glue

▶ FINAL OUTCOME

At post-op day 6, the autograft donor site treated with a single MIAMNION Dual Amnion application had healed.

▶ CONCLUSION

The practice has successfully used the VIVEX Biologics MIAMNION Dual Amnion tissue allograft to treat slow healing autograft donor sites. We have seen successful healing with one application of MIAMNION Dual Amnion. The MIAMNION Dual Amnion tissue allograft is easy to apply, conforms to the autograft donor site and can be held in place with dermal glue.



6 Days After
MIAMNION
Application

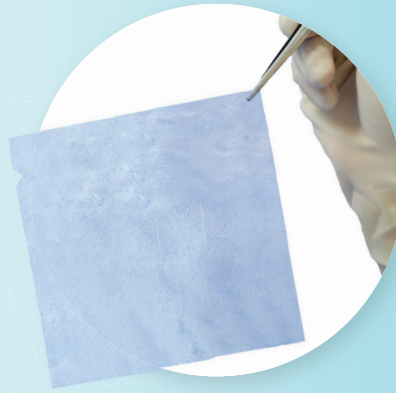
TRADITIONAL SINGLE LAYER AMNION ALLOGRAFT

Derived from the amnion layer of the placental membrane

Offered in large sizes to meet physician needs

Ideal for numerous surgical and soft tissue applications

Immune privileged anatomical barrier¹



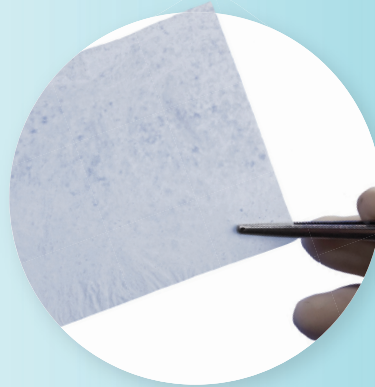
DUAL LAYER AMNION ALLOGRAFT

Derived from the amnion layer of the placental membrane

Approximately 2X thicker than traditional single layer amnion

Available in large sizes for a wide variety of applications

Proprietary dual layer technology



AMNION/CHORION LAYER ALLOGRAFT

Flexible multilayer allograft

Derived from the amnion and chorion layers of the placental membrane

Approximately 4X thicker than traditional single layer amnion

Improved handling and increased workability when compared to single and dual layer allografts

Providing mechanical protection



The MIAMNION® product line offers three different thicknesses for increased versatility for a variety of physician preferences.

Product HCPCS Code: Q4100 (Skin Substitute) per square centimeter

MIAMNION® Single Layer

SIZE	CODE
10x10 cm	MIA101000S

MIAMNION® Dual Layer

SIZE	CODE
7x15 cm	MIA071500S

MIAMNION® Matrix

SIZE	CODE
10x11 cm	MIA101100S

1. Rowlatt, U. (1979). Intrauterine wound healing in a 20-week human fetus. Virchows Arch A Pathol Anat Histol, 381(3), 353-361.
2. Coolen, N.A. et al. (2010). Comparison between human fetal and adult skin. Archives of Dermatological Research, 302(1), 47-55.
3. Niknejad H, Peirovi H, Jorjani M, et al. Properties of the amniotic membrane for potential use in tissue engineering. Eur Cell Mater. 2008;15:88-89



▶ MIAMNION® SINGLE WITH WIDELY MESHED SKIN GRAFT

SECOND- AND THIRD-DEGREE BURNS ON LOWER EXTREMITIES

MIAMNION®

The patient is a 44-year-old male with 15% total body surface area second- and third-degree burns involving bilateral lower extremities and the anterior trunk.

▶ APPLICATION OF VIVEX® BIOLOGICS MIAMNION TISSUE ALLOGRAFT

The patient underwent a tangential excision of the burn and application of allografts. At the time of final reconstruction, split thickness skin grafts were meshed in a 3:1 ratio, with the intention of reducing donor site morbidity, and were used to cover the bilateral lower extremities [Figure 1 and Figure 2].



Figure 1



Figure 2

Area of deep second-degree and third-degree burn wounds in bilateral lower extremities was covered with split thickness skin grafts, meshed 3:1.

The grafts in this area were then covered with VIVEX Biologics MIAMNION single layer amniotic membrane as a skin substitute, and then covered with Bacitracin to maintain moisture [Figure 3 and Figure 4].



Figure 3



Figure 4

Grafts were covered with MIAMNION single layer amniotic membrane tissue allograft.

Three weeks after the application of the MIAMNION single layer amniotic membrane tissue allograft, the second- and third-degree burns showed significant healing [Figure 5, Figure 6, Figure 7].



Figure 5



Figure 6

Post-operative photos at 3 weeks, showing healing.

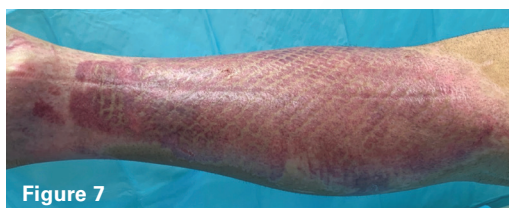


Figure 7

▶ CONCLUSION

This case study demonstrates the use of VIVEX Biologics MIAMNION single layer amniotic membrane tissue allograft as a barrier membrane to help resolve second- and third-degree burns in the bilateral lower extremities. The MIAMNION tissue allograft is easy to apply, is available in multiple sizes and will conform to wounds.

▶ MIAMNION® SINGLE WITH WIDELY MESHED SKIN GRAFT

THIRD-DEGREE HOT OIL BURNS ON THIGH

MIAMNION®

The patient is a 62-year-old diabetic male with 3% total body surface area third-degree hot oil burns involving the right thigh.

▶ APPLICATION OF VIVEX® BIOLOGICS MIAMNION TISSUE ALLOGRAFT

The patient underwent a tangential excision of the burn and application of allografts. At the time of final reconstruction, split thickness skin grafts were meshed in a 3:1 ratio, with the intention of reducing donor site morbidity, and were used to cover the bilateral lower extremities [Figure 1 and Figure 2].



Figure 1



Figure 2

Area of third-degree burn wounds in bilateral lower extremities was covered with split thickness skin grafts, meshed 3:1.

The grafted wounds and the donor site on the contralateral side were covered with VIVEX Biologics MIAMNION single layer amniotic membrane as a skin substitute, and then covered with Bacitracin to maintain moisture [Figure 3, Figure 4, Figure 5].



Figure 3



Figure 4

Grafts were covered with MIAMNION single layer amniotic membrane tissue allograft.



Figure 5

Three weeks after the application of the MIAMNION single layer amniotic membrane tissue allograft, the third-degree hot oil burns showed significant healing [Figure 6 and Figure 7].



Figure 6

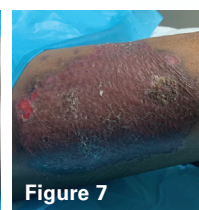


Figure 7

Post-operative photos at 3 weeks, showing healing.

▶ CONCLUSION

This case study demonstrates the use of VIVEX Biologics MIAMNION single layer amniotic membrane tissue allograft as a barrier membrane to help resolve third-degree hot oil burns in the lower extremities. The MIAMNION tissue allograft is easy to apply, is available in multiple sizes and will conform to wounds.



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MKG-AWC-2 Rev 02

▶ MIAMNION® DUAL FACIAL BURNS

CASE STUDIES

MIAMNION®

Deep second-degree burns (also known as deep partial thickness burns) to the face and ears are challenging to treat due to the various contours of the face and ears. Cosmetic outcomes are also an important consideration when selecting treatment options. The traditional use of burn wound excision followed by allograft placement (cadaveric dermis) and transitioning to autografts may be an effective option; however, this process may have unfavorable aesthetic results on the face.

The practice mentioned in this case study uses VIVEX® Biologics MIAMNION Dual Amnion tissue allograft to treat deep second-degree facial burns. The MIAMNION Dual Amnion tissue allograft has 2 layers of amnion. The innate nutrient-rich endogenous growth factors present in the tissue are preserved using VIVEX's Integrity Processing method. This allograft provides a barrier and provides mechanical protection to the damaged tissue.^{1,2,3} This practice has seen favorable outcomes with a single MIAMNION Dual Amnion application.

The following 2 cases are examples of the practice's experiences with the VIVEX Biologics MIAMNION Dual Amnion tissue allograft.

▶ CASE 1

CLINICAL HISTORY

A 46-year-old male was admitted with 14% total body surface area second-degree superficial partial thickness flash electrical burn to his face, ear, neck, chest and forearm. The focus of this case study will be on the treatment of his face and right ear.

APPLICATION OF VIVEX BIOLOGICS MIAMNION DUAL AMNION TISSUE ALLOGRAFT

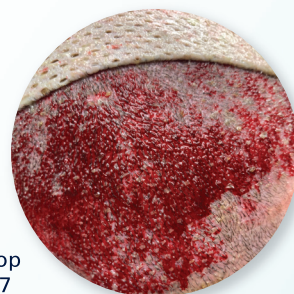
Due to the second-degree superficial partial thickness burn to the face and right ear, MIAMNION Dual Amnion tissue allograft was applied once to his face as an anatomical barrier, providing mechanical protection. Bacitracin was applied over the amnion tissue to maintain moisture. No external dressing was required.

FINAL OUTCOME

At post-op day 7, the face treated with MIAMNION Dual Amnion was healed. The scalp treated with cadaver skin was still raw and required additional intervention. On post-op day 10, the entire face and ear had healed after a single MIAMNION Dual Amnion application.



Post-op
Day 7



Post-op
Day 10

► CASE 2

CLINICAL HISTORY

A 64-year-old male was admitted with 22% total body surface area burns to his face, head and bilateral upper extremities. He had deep partial thickness burns on his head and deep second-degree burns on his face. The focus of this case study will be on the treatment of his face and head.

APPLICATION OF VIVEX BIOLOGICS MIAMNION DUAL AMNION TISSUE ALLOGRAFT

Due to the deep second-degree burns to the patient's face, MIAMNION Dual Amnion tissue allograft was applied once to his face as an anatomical barrier, providing mechanical protection. Bacitracin was applied over the amnion tissue to maintain moisture. No external dressing was required.

FINAL OUTCOME

This patient was seen in the clinic 12 weeks after the single application of MIAMNION Dual Amnion. His facial burn was 100% healed and there were no visible scars on his face.



Immediately postoperative after burn excision and application of skin allograft and prior to application of VIVEX Biologics MIAMNION Dual Amnion tissue allograft



Post-op
12 weeks

► CONCLUSION

The practice successfully used the VIVEX Biologics MIAMNION Dual Amnion tissue allograft to treat deep second-degree burns to the face and ears that are challenging to treat due to the various contours of the face and ears. The traditional use of debridement followed by cadaver skin and transitioning to autografts is an effective option; however, this may lead to unfavorable aesthetic results if an entire subunit of the face is not treated with an identical graft. We have seen minimal scarring in treating faces and ears with one application of the MIAMNION Dual Amnion tissue allograft. The MIAMNION Dual Amnion tissue allograft is readily available and conforms with relative ease to the contours of the face and ears.

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