Clarix®

Clinical Case Review

Plastics

Maxillofacial Reconstruction

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Why this Study is Relevant

It has been estimated that orbital fractures account for 10-25% of all facial fractures (FIG. 1).[1-3] Most commonly, these result from assault or Motor Vehicle Accidents (MVA) and can be life-threatening injuries. Considering the key anatomical structures and organs in the area, surgical reconstruction can be highly technical.

Post-operatively, these injuries often have complications related to compression of the optic nerve or extraocular muscle impingement.[4] Surgical technique can account for some of these complications, however, the adult healing cascade, including prolonged inflammation and scarred healing, plays a role as well. Advanced treatment modalities, such as Clarix® 1K human birth tissue allograft (FIG. 2), that can help manage inflammation and scarring, hold great promise in maxillofacial reconstruction procedures.

Case Example

- 43-year-old male post MVA
- Classic right tripod fracture and orbital floor defect greater than 5mm
- Mid-right cheek laceration and soft tissue defect

Treatment Procedure

The surgical technique was a classic three incision and placement of two titanium plates with 1.2 mm screws to the lateral and inferior orbital rims (FIG. 3). The zygomatic arch depression was elevated with the fracture reduction but not fixated. Following reconstruction, and just prior to closure, the prominences of the facial plates were covered with Clarix 1K cryopreserved, ultra-thick amniotic membrane allograft to help manage adhesive scarring (FIG. 4). The orbital floor and laceration defects were filled with Clarix 1K to help support advanced healing in the area (FIG. 5).

Outcomes

Clarix 1K was used to help manage inflammation surrounding the plates and, more importantly, help prevent entrapment of the extra-ocular muscles with scar tissue as the orbital floor heals. The patient presented one week later after surgery with minimal periorbital swelling and minimal ecchymosis (FIG. 6). This decreased swelling helps with preventing ectropion and enables early return to normal vision.

This case demonstrates the tremendous impact that Clarix 1K can have on reconstructive repair around the eye. When used as an adjunct to surgery as a barrier, the innate properties of this allograft help to avoid complications from swelling, compression and adhesive scarring to facilitate successful outcomes.

FIG. 1
Location of fractures

FIG. 2
Clarix 1K

FIG. 3
Lateral and inferior orbital rim reconstruction

FIG. 4
Application of Clarix 1K over the hardware

FIG. 5
Close-up of Clarix 1K placement

FIG. 6
1-week post surgery - healthy wounds with diminished inflammation and swelling

The BioTissue family of allografts has two options based on your surgical needs:

Clarix 1K

- The market-first cryopreserved, ultra-thick human amniotic membrane allograft derived from umbilical cord as an adjunct for surgical applications
- Expedites and improves surgical wound healing[4-8]
- Up to 10x thicker than amniotic membrane (AM) only,[9] which may increase longevity in the surgical site
- Easier handling and less preparation time compared to heat dehydrated and frozen AM only allografts

Clarix 100

- Clarix 100 is a thinner cryopreserved version of our human amniotic membrane
- Clarix 100 is ideal for surgical applications that favor a minimal approach/incision or where space is anatomically compromised
- The allograft is delivered on a non-implantable, gridded paper backing for easier handling and application

The BioTissue Difference

Manufacturer
Over-37-year commitment to understanding the science behind fetal regenerative healing
The leader in the transformation to becoming a biologics provider.

Processing
Proprietary CryoTek® cryopreservation process shown to preserve more of the key biological components and structural integrity of birth tissue.

Tissue Source
Focused on delivering quality amniotic membrane-based allografts, we are the only company with FDA-designation for its unique anti-inflammatory, anti-scarring and anti-angiogenic properties on the ocular surface.

Storage
Versatile solution enables cool storage with minimal thawing and the ability to return the product to storage unopened.

	Clarix 1K Cryopreserved Ultra-Thick Amniotic Membrane Allograft					Clarix 100 Cryopreserved Amniotic Membrane Allograft		
Catalog Number	CR-10-1515	CR-10-2525	CR-10-4030	CR-10-6030	CR-10-8030	CR-10-2020	CR-10-4040	CR-10-7070
Dimensions	1.5 x 1.5 cm	2.5 x 2.5 cm	4.0 x 3.0 cm	6.0 x 3.0 cm	8.0 x 3.0 cm	2.0 x 2.0 cm	4.0 x 4.0 cm	7.0 x 7.0 cm

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