



**FOOT & ANKLE**

**Comparative Bilateral MTP Cheilectomy**

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**TECHNOLOGY PLATFORM**

CLARIX<sup>®</sup>CORD 1K Regenerative Matrix is cryopreserved human Amniotic Membrane and Umbilical Cord (hAMUC). Amnioc Medical’s proprietary CRYOTEK<sup>®</sup> preservation process retains the relevant natural structural and biological characteristics of the hAMUC tissue while devitalizing the living cells. CLARIX<sup>®</sup>CORD 1K Regenerative Matrix is used as a surgical covering, wrap or barrier.

**CLINICAL HISTORY**

43-year-old, female diagnosed with bilateral hallux rigidus. Patient presented with symptoms including 8/10 pain at the hallux MTP joint, stiffness (range of motion (ROM) 40° dorsiflexion, 10° plantarflexion), crepitance, and pain with shoe wear. Patient failed nonoperative treatment. A cheilectomy was performed on right toe prior to availability of CLARIX<sup>®</sup>CORD 1K. Following procedure, the right toe was stiff, its natural resting posture was contracted, and formal physical therapy had to be initiated (FIG. 2: LEFT, FIG. 3 ABOVE). Left toe was corrected following availability of CLARIX<sup>®</sup>CORD 1K Regenerative Matrix.

**PROCEDURE**

Center the incision over hallux MTP joint, dorsally and medially to Extensor Hallucis Longus (EHL) tendon. Dissect through the subcutaneous plane and perform capsulotomy and synovectomy. Use a rongeur to remove dorsal osteophyte from hallux metatarsal head and proximal phalanx. Use saw to resect dorsal arthritic portion of hallux metatarsal head (usually 25%).

In this case, a CLARIX<sup>®</sup>CORD 1K 2.5 x 2.5 cm was used as a soft-tissue adhesion barrier. After cheilectomy, apply CLARIX<sup>®</sup>CORD 1K over the cancellous bed (FIG. 1). Use 2-0 vicryl suture to tack the matrix to the capsule during closure of the capsule (FIG. 1). Complete standard skin closure. Replace surgical dressing in 5 days and begin gentle passive ROM twice daily. Remove suture, order radiographs, assess ROM and institute physical therapy at 10-14 days. Gradually return to activity by 2-4 weeks and remove limitations at 6-8 weeks.

**OUTCOME**

Following the CLARIX<sup>®</sup>CORD 1K application, the swelling was dramatically less and ROM was 30 degrees greater in the left toe (FIG. 1, FIG. 2: RIGHT), despite more recent treatment than ungrafted procedure (2 versus 6 weeks postop). Patient testimony confirmed clinical observation that outcome of procedure supplemented with CLARIX<sup>®</sup>CORD 1K was far superior to contralateral procedure in terms of postoperative pain, swelling and overall success.



FIG. 1: APPLICATION AND CLOSED CAPSULE



FIG. 2: CONTRACTED TOE (LEFT) VS CLARIX<sup>®</sup> TOE (RIGHT)



FIG. 3: UNGRAFTED 6 WEEKS (TOP), GRAFTED 2 WEEKS (BOTTOM)