



FOOT & ANKLE

1st Metatarsophalangeal (MTP) Joint Cheilectomy

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TECHNOLOGY PLATFORM

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

CLINICAL HISTORY

52-year-old, female diagnosed with early stage hallux rigidus with dorsal exostosis. Symptoms include dorsal 1st MTP joint pain with prominent dorsal exostosis. Pain noted at maximal joint end range of motion and with palpation of bone prominence.

PROCEDURE

Use standard dorsal approach to the 1st MTP joint, just medial to the Extensor Hallucis Longus (EHL) tendon. Dissect with care to protect adjacent neurovascular structures. Access the joint capsule and release any adhesions to expose the dorsal exostosis (**FIG.1**). Resect dorsal exostosis and top 10-15% of the metatarsal head with power sagittal saw or osteotomes. Use a rongeur to remove redundant bone from medial and lateral aspects of the metatarsal head and dorsal rim of the proximal phalanx (**FIG.2**). If motion is restricted, use soft tissue elevator to release sesamoid adhesions to the underside of the metatarsal head.

In this case, a CLARIX®CORD 1K 2.5 x 2.5 cm was used as a soft-tissue adhesion barrier between the EHL tendon and 1st MTP joint capsule and the raw bone of the resected metatarsal head. Place CLARIX®CORD 1K Regenerative Matrix directly on the rough surface on the dorsal 1st metatarsal head at the location of the exostectomy. Trim the matrix as needed; it is not intended to drape over the joint surface. Use 0-Vicryl or similar suture to secure the 4 corners of the CLARIX™ to the underside of the joint capsule; these sutures can be thrown from extra-capsular, across the capsule and the matrix, and then out again (**FIG. 3**). Finish capsular closure using 2 or 3 additional sutures. Re-approximate subcutaneous tissue with 2-0 absorbable suture in a simple interrupted fashion. Close skin with a running, absorbable subcuticular closure.

Apply well padded, 1st MTP spica dressing. Allow patient heel weight-bearing in surgical shoe or boot for 1 week. Remove initial dressing at 1 week and resume normal hygiene. At 2 weeks, begin passive range of motion of the 1st MTP. Transition patient into athletic shoe at 3-4 weeks. Consider formal physical therapy at week 4 pending motion of the joint.



FIG. 1: IDENTIFY EXOSTOSIS



FIG. 2: APPLICATION



FIG. 3: PRIMARY FIXATION