



FOOT & ANKLE

Lapidus Bunionectomy

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TECHNOLOGY PLATFORM

CLARIX[®]CORD 1K Regenerative Matrix is cryopreserved human Amniotic Membrane and Umbilical Cord (hAMUC). AmnioX 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

47-year old female diagnosed with hallux valgus deformity and hyper-mobility of the first ray presents for a Lapidus bunionectomy. Patient is noted to have mild arch collapse from elevation, laxity of the first ray, and pain with ambulation.

PROCEDURE

The Lapidus bunionectomy is performed by making a dorsomedial incision over the first metatarsal cuneiform joint. A capsular incision is then made and the capsule and periosteum are reflected off the joint. The joint surfaces are prepared by removing the cartilage with either a power saw or an osteotome and curettes per surgeon preference. The metatarsal is placed in the corrected position and temporarily fixated, confirming position on fluoroscopy. Permanent fixation is per surgeon preference and can vary from two crossing screws to a combination of compression screws and a locking plate. The first metatarsal phalangeal joint is then opened using a medial incision. The dorsomedial prominence was resected with a saw and the lateral structures were released at the time of capsular closure.

In this case, a CLARIX[®]CORD 1K 2.5x2.5cm matrix was applied subcutaneously to the dorsal mid-foot incision after capsule closure to serve as a soft-tissue adhesion barrier (**FIG. 1**). A second CLARIX[®]CORD 1K 2.5x2.5cm was placed over the first metatarsal head, just beneath the capsular layer to serve as a soft-tissue adhesion barrier (**FIG. 2**). The incisions were closed and dressed and the patient was placed in a below the knee cast.

OUTCOME

Decreased swelling and pain was noted at the metatarsal phalangeal joint (MPJ) as compared to previous Lapidus procedures without the use of CLARIX[®]CORD 1K. Dramatic improvement in range of motion (ROM) with an increase in early ROM by 30-40 degrees at the MPJ was noted as compared to the same procedure without the hAMUC matrix. Although many cases of bunion correction will gain an increase in ROM with physical therapy, overall ROM at one year was found to be better after the use of the CLARIX[®]CORD 1K matrix, with less time in physical therapy and decreased pain during ROM exercises.



FIG. 1: APPLICATION



FIG. 2: APPLICATION



FIG. 3: OUTCOME