



## FOOT & ANKLE

# Tarsal Tunnel Syndrome Decompression

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### TECHNOLOGY PLATFORM

CLARIX<sup>®</sup>CORD 1K Regenerative Matrix is cryopreserved human Amniotic Membrane and Umbilical Cord (hAMUC). AmnioX 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

52-year-old, male diagnosed with tarsal tunnel syndrome. Patient presented with pain in the posteromedial border of the ankle and radiating pain along inner border of ankle and into the foot. Tinel's sign was positive with paresthesia along the plantar aspect of the foot.

### PROCEDURE

Place the patient in a supine position with thigh tourniquet. Regional anesthesia with a popliteal block is preferred. Map a curvilinear incision along the posteromedial border of the ankle that is 10 mm posteroinferior to the posterior margin of the medial malleolus. Dissect to the surface of the lacinate ligament (or flexor retinaculum) which overlies the posterior tibial nerve (**FIG. 1**). Release the ligament to expose the complete contents of the neurovascular bundle: the posterior tibial nerve, artery and vein. Release the posterior tibial nerve. Trace the posterior tibial nerve to its termination at the medial and plantar nerves and release the nerves as they pass under the deep fascia of the abductor hallucis brevis muscle belly. Identify all three neural structures (posterior tibial nerve, medial plantar nerve, and lateral plantar nerve) and perform neurolysis.

In this case, a CLARIX<sup>®</sup>CORD 1K 4.0 x 3.0 cm was trimmed and contoured to fit the superficial surface of the tarsal tunnel (**FIG. 2**). Wrap CLARIX<sup>®</sup>CORD 1K Regenerative Matrix around the neurovascular bundle (**FIG. 3**). Avoid suturing graft to surrounding structures to prevent inadvertent injury to the nerve. The lacinate ligament is not reapproximated. Close the subcutaneous tissue with 2-0 absorbable suture.

Place patient in a non-weight-bearing (NWB) well-padded posterior plaster mold. Remove sutures at 10 days and convert to a full weight-bearing fiberglass cast for 3 weeks. Apply removable boot walker for 3 weeks and initiate physical therapy for range of motion, strengthening, and proprioception exercises. Return to full activity at 6 weeks.



FIG. 1: IDENTIFY EXOSTOSIS



FIG. 2: APPLICATION



FIG. 3: PRIMARY FIXATION