Achilles Tendinosis Repair with CLARIX™1k Regenerative Matrix

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CLARIX™ Regenerative Matrix is made from cryopreserved human Amniotic Membrane (AM). Cryopreserved AM has been demonstrated to control inflammation and modulate adult wound healing towards a scarless pathway in ophthalmic surgery. This technology holds great promise for use as an orthopedic wound covering and soft tissue barrier. In this case, a CLARIX™1k 4.0 x 3.0 cm AM Matrix was used as a soft-tissue adhesion barrier following primary surgical repair.

Case Information
Age: 42
Sex: Female
Diagnosis: Achilles tendinosis with partial tear.
Symptoms: Pain and swelling over Achilles for 4 months. Unable to exercise secondary to pain. Patient failed conservative care including rest, physical therapy, and immobilization for a period of 3 months without pain relief.

Positioning of the Patient
Position the patient in the prone position.

Marking the Skin
(Pre-operative planning) Outline a medial incision to the Achilles tendon.

Incision (Fig. 2)
Map the longitudinal incision just medial to Achilles tendon. The medial incision allows good exposure to the Achilles and helps prevent post-op scar tissue over the Achilles that a direct posterior incision may create.

Dissection
Carry incision down and through the paratenon to expose the nodularity of the Achilles tendon.

Identification (Fig. 3)
Inspect Achilles tendon for tears and defects such as nodules, fibrous tissue, or thickening of the soft tissue.
Resection (Fig 4)
Create a longitudinal incision in the Achilles to remove tendinosis and mucinous tissue.

Achilles Repair
Repair the Achilles tendon following removal of pathologic tissue.

Matrix Selection
Select appropriate CLARIX™ Regenerative Matrix; for this case CLARIX™ 1k 4.0 x 3.0 cm was selected.

Secure CLARIX™ (Fig. 5 and 6)
Place CLARIX™ Matrix over the repair and secure in position with suture.

Closing the Incision
Re-approximate the subcutaneous tissue. Suture superficial skin with nylon suture and a no touch technique.

Standard Post-Operative Instructions
Place patient in non-weight-bearing cast for 3 weeks. Remove suture at 3 weeks. Start weight-bearing at 3 weeks in an Achilles walker boot with a 30 degree lift. Remove 10 degrees per week for 3 weeks. Initiate physical therapy 3 weeks including Achilles gliding and strengthening without passive dorsiflexion.

Outcome
At six weeks, the patient weaned out of the boot, progressed in therapy and gradually returned to activities. The patient has returned to all activities without pain.