clarix 100

SPINE

Lumbar Microdiscectomy

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TECHNOLOGY PLATFORM

CLARIX®100 Regenerative Matrix is a cryopreserved form of human Amniotic Membrane. Amniox Medical's proprietary CRYOTEK® preservation process retains the relevant natural structural and biological characteristics of the Amniotic Membrane while devitalizing the living cells. CLARIX®100 Regenerative Matrix is used as a surgical covering, wrap or barrier.

CLINICAL HISTORY

47-year-old, male diagnosed with Lumbar Herniated Nucleus Pulposus (ICD9 722.1). Patient presented with pain radiating from the low back down to the posterior thigh, lateral calf and plantar-lateral portion of the foot. Physical examination revealed 4/5 strength in toe flexion, positive straight leg raise at 50 degrees, sensory loss over the lateral foot, and absent Achilles reflex.

PROCEDURE

Place patient prone on radiolucent spine frame. Utilize general anesthesia. Localize incision using C-arm and spinal needle. Map a 20mm incision on the symptomatic side and use serial dilation to place a tubular retractor at the L5-S1 level. Verify the position of the tubular retractor fluoroscopically. Use a Kerrison rongeur to resect the caudal edge of the L5 lamina and the cranial edge of the S1 lamina. Release the ligamentum flavum and partially resect to allow visualization of the traversing S1 nerve root. Gently retract the nerve root and examine the L5-S1 disc. Open disc space using a Penfield #4. Use pituitary rongeurs to remove extruded disc fragments. An annular defect is visible at the conclusion of the procedure (**FIG. 1**).

In this case, a CLARIX®100 2.0 x 2.0 cm AM Matrix was selected for use as a soft-tissue adhesion barrier following primary spinal surgery. Remove the CLARIX®100 Matrix from the paper backing and transfer to a second nerve retractor with the stromal (sticky) side is facing outward (**FIG. 2**). Deliver the graft to the discectomy site using the second nerve root retractor, and lay the graft over the defect in the posterior annulus using a nerve hook (**FIG. 3**). Use nerve hook to reinforce graft placement while returning the nerve root to its native position. Lay the nerve root just dorsal to the graft to maintain the position of the tissue. Withdraw the tubular retractors and ensure good hemostasis. Close the fascia and skin using 2-0 absorbable suture. Administer subcutaneous injection of a long acting local anesthetic around the incision and apply an adhesive bandage. Patient was mobilized as soon as he has recovered from anesthesia. A 30-minute per day walking program was encouraged. Rehabilitation including aerobic activities and core muscle strengthening were begun one week after surgery.

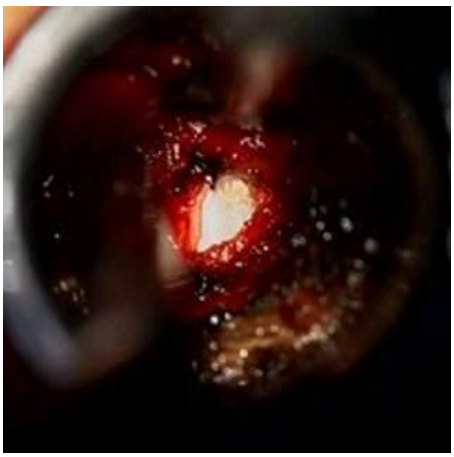

FIG. 1: ANNULAR DEFECT

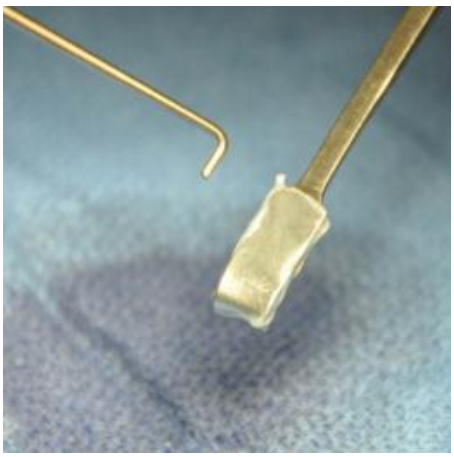

FIG. 2: MATRIX PREPARATION

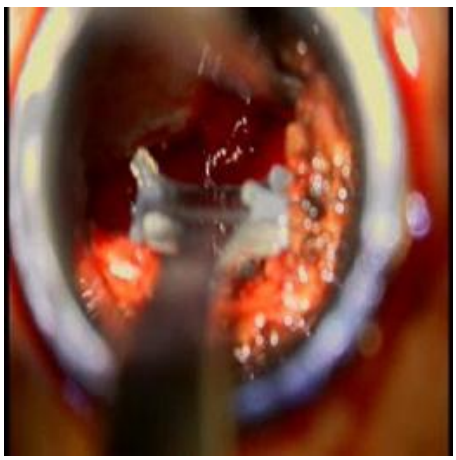

FIG. 3: POSITIONING

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