

Utilization of a Next Generation Decellularized Dermal Allograft to Augment the Repair of a Complete Rupture of the Common Extensor Tendon After a Lateral Epicondylectomy with Failed Reinsertion of the Common Extensor Tendon

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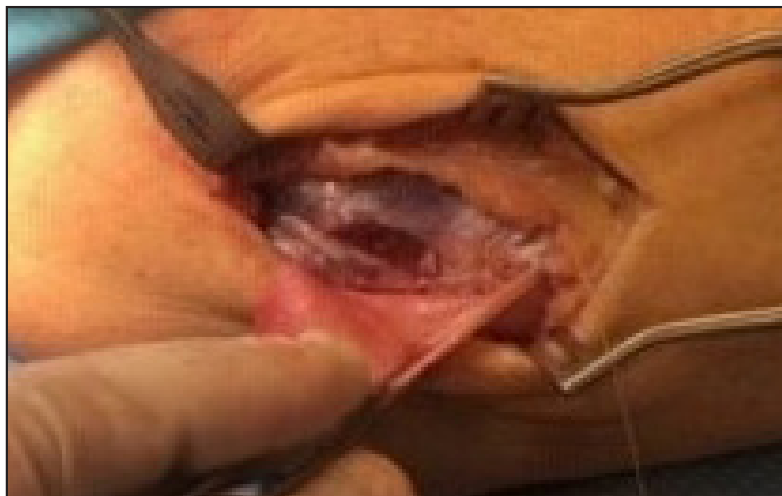
Surgical Summary

Clinical Presentation:

- 58-year-old male presented six months post right lateral epicondylectomy with reinsertion of the common extensor tendon.
- Reported that approximately two weeks prior, he noticed a return of fluid in his right elbow accompanied by pressure and pain. This had been previously noted at 11 weeks post-op; resolved with fluid aspiration.
- Examination revealed palpable fullness and fluctuance over the surgical site, without erythema. Fluid aspirations and the use of compression dressings were unsuccessful, prompting a subsequent surgery to remove the bursa, reconstruct the lateral joint capsule and re-insert the common extensor tendon.

Intraoperative Findings:

- A large ganglion encased a seroma emanating from complete rupture of the common extensor tendon at its insertion site, on the right lateral epicondyle.



DermaPure® Implantation
4 cm x 6 cm
Basement Membrane Outer-Most

Figure 1. DermaPure® circumferentially sutured over the lateral common extensor tendon insertion.

Surgeon Perspective:

"I was concerned about creating a watertight repair, as the tissues were severely attenuated, and the patient already had a communication from the joint. It literally looked like a bomb went off at his common extensor origin. Using the known tissue integration properties of DermaPure®, I confidently repaired the tissues without the worry of a recurrent joint failure."

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DERMA [PURE]
dCELL[®] technology

Surgical Procedure:

- The right arm was draped/prepped in the usual sterile fashion, an Esmarch bandage was used to exsanguinate the extremity. The tourniquet was inflated to 250 mmHg.
- A curvilinear incision was made over the prominent aspect of the palpable swelling of the right elbow over the lateral epicondyle. Full-thickness skin flaps were elevated, and hemostasis was achieved with bipolar electrocautery.
- A ganglion seroma emanating from the rupture of the common extensor tendon at its insertion site of the lateral epicondyle was identified. All tissues were sufficiently debrided. The lateral epicondyle was inspected and debrided with a rongeur.
- A 3 mm drill was used with a guide pin and depth gauge to drill two anchor sites into the lateral epicondyle. A 1.5 mm umbilical suture tape was passed in an inside-out fashion and inserted using a 3.5 mm Swivelock[®] anchor. The anchor was advanced to the laser line guides, achieving excellent fixation of the common extensor tendon.
- A 4 cm x 6 cm DermaPure[®] decellularized dermal allograft was circumferentially sutured over the lateral common extensor tendon insertion. A watertight closure of the fascia was achieved using a locked, running 3-0 Vicryl[®] suture. (Figure 1)
- The wound was copiously irrigated, and the overlying skin was closed using 4-0 Vicryl[®] and 4-0 Monocryl[®] subcuticular sutures.
- A sterile bulky dressing was applied, and a long-arm splint was fashioned with 3-inch plaster.

Post-Operative Note:

- One week post-op: No complications. Changed the long arm post-op splint to a volar wrist splint for five weeks.
- Six weeks post-op:
 - Patient reported using arm daily with only minimal pain. Reported no numbness or tingling
 - Well healed incision with no signs of infection
 - Moderate to no tenderness to palpation at surgical site
 - ROM Wrist: Flexion and Extension 45°
 - Splint discontinued
 - Occupational therapy was initiated for ROM
- Six months post-op: Returned to full activity. No pain. Recovered as expected.
- One year post-op: Full range of motion, appropriate grip strength, and no recurrence of swelling, pain, or limitations.

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