Utilization of a Next Generation Decellularized Dermal Allograft to Augment the Repair of a Massive Rotator Cuff Tear Involving the Supraspinatus and Infraspinatus Tendons

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Surgical Summary

Clinical Presentation:
- 44 year-old male, healthy police/SWAT officer who slipped and fell on his elbow, dislocating his shoulder. Shoulder was reduced, and patient underwent rehab for six weeks, but made no progress.
- Exam revealed 90 degrees of active forward flexion but full passive range of motion.
- MRI revealed 4 – 5 cm tears in the supraspinatus and infraspinatus tendons, no muscle atrophy and no labral tears.

Intraoperative Findings:
- Massive rotator cuff tear, involving the supraspinatus and infraspinatus tendons, retracted to the mid humeral head (Figure 1 and 2).

Surgeon Perspective:

“DermaPure® added augmentation to this massive rotator cuff repair. At 3 months post-op, this patient continues with the 10 pound lifting restriction and remains pain free.

All of the patients in which I have utilized DermaPure® for augmentation of the rotator cuff repair, no longer required narcotics for pain management by post-op day 4 – 7.”
Surgical Procedure:

- Right shoulder arthroscopy with subacromial decompression, distal clavicle excision and deltoid splitting incision.
- Supraspinatus and infraspinatus tendons were mobile and easily advanced to the footprint. Double row rotator cuff repair of the supraspinatus and infraspinatus rotator cuff tendons using 4.5 mm Healix BR™ anchors medially, passing Permacord® and Permatape® 5.0 mm laterally to the musculotendon junction. Medial Permacord® tied, then Permatape® passed through DermaPure® decellularized dermal allograft, previously soaked in bacitracin/vancomycin solution.
- Repair completed by placing DermaPure® decellularized dermal allograft over the repair, using a suture bridge, then completed double row repair with Healix BR™ anchors laterally to fit the graft without tension (Figure 3).

Post-Operative Note:

- By post op day 4, the patient no longer required narcotics for pain management.
- Patient is being followed routinely to assess clinical outcomes.