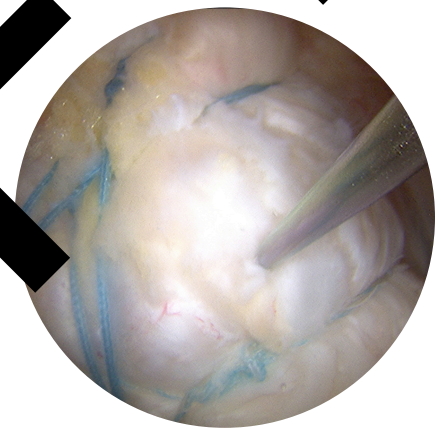
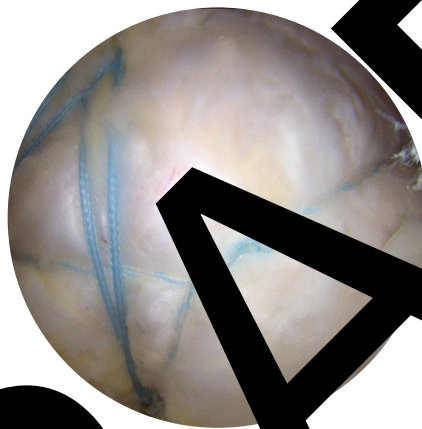
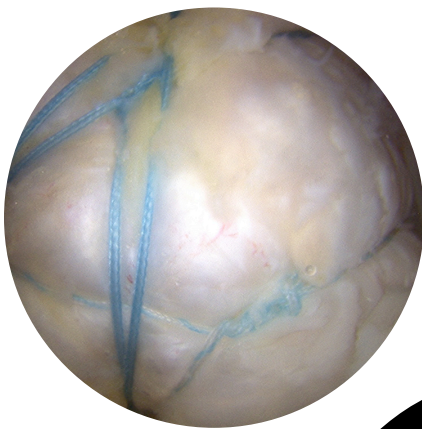


margin of the acromioclavicular joint. Attention was directed to the rotator cuff. There was a 2-tendon rotator cuff tear noted, off the anterior interval in an L shape with significant retraction. Tendon was freed of adhesions with arthroscopic elevators on both the joint and bursal surfaces. Tendon was diseased, but was able to be reduced back to its anatomic footprint on the greater tuberosity without tension. Bony bed was scarified laterally, and a fourth and final stab portal was created superiorly for anchor insertion. Two double-loaded HEALICOIL® Suture Anchors (Smith and Nephew, Andover, MA) were placed medially for medial row fixation, each loaded with two number 2 non-absorbent sutures. Tear geometry was addressed. Sutures were shuttled through the tendon using suture passers for mattress repair to bone. Sutures were stored out the anterior portal for later retrieval and tying. Additionally, 3 side-to-side sutures (number 2 FiberWire®, Arthrex, Naples, FL) were placed for margin convergence. Sutures were then retrieved from posterior to anterior, tied with a Tennessee Slider Knot, backed up with half-hitches.

Sutures were then criss-crossed, retrieved laterally, and placed through two 4.5mm Footprint anchors (Smith and Nephew, Andover, MA) for lateral row compression. Anchor was deployed locking the sutures laterally, and then suture tails were criss-crossed in an excellent loop and knot security was present, as well as coverage and tissue indentation (Figures 3 & 4). No further visualization of the intra-articular contents was noted. Irrigation was undertaken. A spinal needle was introduced into the repaired tendon at the midpoint of the medial and lateral rows (Figure 5). Suction of the subacromial space was undertaken, and AmnioFix was injected into the repair site. Wound were closed and patient was awakened, placed in a sling, and transferred to recovery room and then home.



Figures 3 & 4
BridgeFix double-row rotator cuff repair

Figure 5
Injection of AmnioFix into rotator cuff repair

CLINICAL FOLLOW UP

Patient was placed in a sling for 2 weeks with instructions to work on elbow, wrist, and hand range of motion. Gentle pendulum and Codman exercises were instructed at home. Patient followed up at two weeks for sutures out, discontinuation of sling, and sent for formal physical therapy for a progressive motion and strength protocol. At first post-operative visit, excellent, near normal passive range of motion was noted with a VAS pain score rating of 2/10. Patient returned to clinic seven weeks post-op for follow up visit with pain score rating of 0/10. Examination of the shoulder revealed 170 forward elevation, 60 degrees external rotation with the arm at the side, and internal rotation to symmetric measurements with contralateral uninjured shoulder. Rotator cuff strength testing was noted at 5/5. Patient was very satisfied with his results.

CONCLUSION

This case example is one of many that I have observed with accelerated rotator cuff healing and clinical success when augmenting my repairs with the injection of AmnioFix at the repair site in a BridgeFix technique. AmnioFix adds less than 5 minutes to the surgical procedure and requires no extra exposure or incision. This BridgeFix technique appears to offer increased healing rates and improved clinical outcomes. Full long-term studies are being conducted, but very promising observations are being made in patients with full-thickness rotator cuff tears of all sizes. In this case example, the patient had poor tissue and a large retracted tear, two variables associated with significantly poorer outcomes. The addition of AmnioFix to the bridge repair appears to have greatly assisted in tendon attachment and regrowth.

All cited products are registered trademarks of their respective owners.