

Arthrex TightRope Canine Shoulder Stabilization Technique

Medial Compartment Instability

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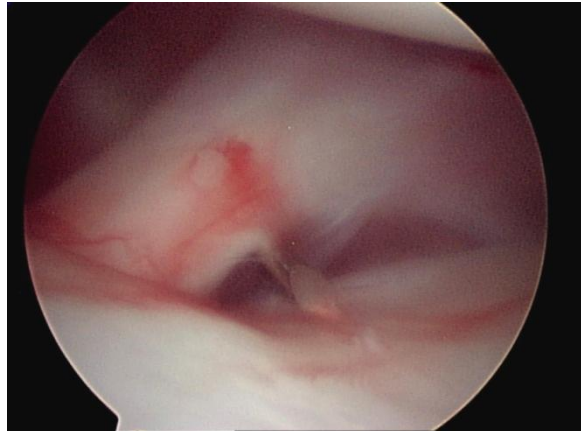
Prepare patient for hanging limb technique as described by Devitt, et al. Clip, prep, and drape widely around shoulder joint for access to medial and lateral aspects of shoulder.

Establish a craniolateral (or caudolateral if preferred) scope portal and fully assess the joint documenting all pathology present. Determine if the main pathology (laxity tearing) is in the subscapularis, MGL, or both.

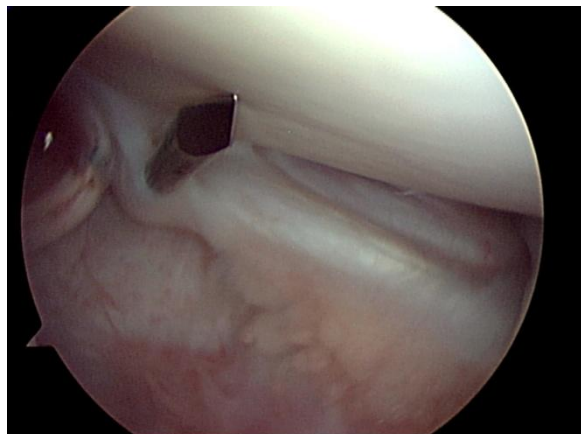
Make a ~2 cm incision on the medial aspect of the shoulder joint immediately cranial to the pectoralis muscles. Bluntly dissect under the pecs, retracting them caudally, to the level of the joint on the medial side.



Insert the first TR guidewire into the joint from the medial aspect such that it can be visualized on the glenoid rim at the midpoint of the “Y” of origin of the MGL. Placement should allow for an angle of insertion such that the lateral exit point of the wire is in the supraspinatus fossa just cranial to the spine of the scapula and just proximal to the neck of the glenoid. When this has been accomplished, “walk” the point of the guidewire proximally (down with limb in hanging position) off the glenoid rim 2-3 mm (the point of the guidewire may no longer be visible). Have your assistant put the wire driver over the wire and with you still holding it lock the wire driver, and then drive it across the glenoid. Double check your entrance and exit points to make sure they are ideally located, and make sure the wire has not violated articular cartilage.

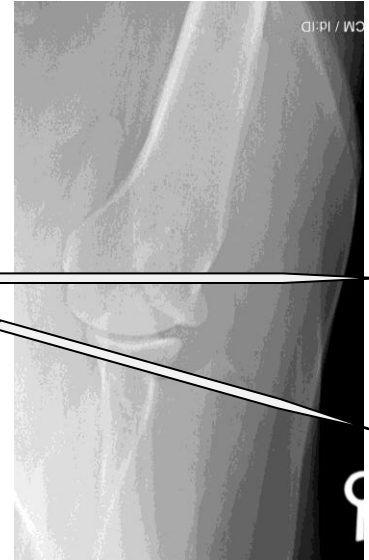


When the glenoid wire is placed appropriately, insert the second guidewire into the joint from the medial aspect such that it can be placed on the proximal humerus. If the pathology is primarily MGL, then put the point of the wire at the insertion of the MGL. If the pathology is primarily subscapularis, then put the point of the wire at the insertion of the subscap. If the pathology involves both, you can either “split the difference” for the humeral tunnel, or place two TRs to address both problems. Placement should allow for an angle of insertion such that the lateral exit point of the wire is on the caudodistal aspect of the greater tubercle just cranial to the acromial head of the deltoid. When this has been accomplished, “walk” the point of the guidewire distally (up with limb in hanging position) on the proximal humerus to ensure it will not violate the



articular surface. Have your assistant put the wire driver over the wire and with you still holding it, lock the wire driver and then drive it across the proximal humerus. Double check your entrance and exit points to make sure they are ideally located, and make sure the wire has not violated articular cartilage.

Once your guidewires are set, remove the scope and get the TR out and ready for placement. Drill the humeral tunnel first over the guidewire from medial to lateral. Make a 1-2 cm incision over the lateral exit site of the drill bit all the way down to bone and dissect an area large enough for the TR button to sit fully down on bone. Remove the guidewire from the drill bit and push the tip of the TR leadwire into the drill bit cannulation channel and push the leadwire through the humeral tunnel from lateral to medial following the drill bit as it is extracted. Pull the TR toggle through to the medial side and then pull it cranially, out of the way for glenoid drilling.



Make a 1-2 cm incision over the lateral point of the glenoid guidewire and dissect or retract the supraspinatus to allow you to get down to bone in the supraspinatus fossa. Place a 4.0 mm drill sleeve over the wire down to bone. Drill the glenoid tunnel over the guidewire from lateral to medial. Remove the guidewire and push the tip of the TR leadwire into the drill bit cannulation channel and push the TR leadwire through the glenoid tunnel from medial to lateral following the drill bit as it is extracted. Pull the TR toggle through to the lateral side, flip it, and push it down to firmly seat on bone (verify that it is well seated by palpation).



pull the fibertape taught on the medial side, untwist it and make sure it lays down flat against medial capsule/tendon/ligament. Then pull it taught on the lateral side and push the button down to seat firmly on humeral bone. Take the limb down from the hanging position and put at a neutral abduction angle of ~0-10 degrees. Put a surgeon's throw over the button and then tie a bow over that. (Alternatively, the Arthrex Tensioner can be used to tension and hold the TR in place during testing). Test the shoulder for abduction, drawer, and ROM. If satisfied, then pull the bow through to a knot and put 3 additional throws on. If not satisfied, change your tension or if necessary place additional fixation or redo the TR. Close routinely. Take postoperative radiographs. Hobble the patient for at least 4 weeks. Dedicated rehab is strongly recommended.

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