KOC
Knoxville Orthopaedic Clinic
Shoulder And Elbow Center
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Anterior Instability/Bankart Protocol

Pathology and Treatment: There are three main stabilization mechanisms to be considered with rehabilitation of the unstable shoulder.
1. Static stability- which is stability provided by the capsule, labrum and ligaments of the shoulder.
2. Dynamic stability- which is provided by relationship between the rotator cuff and scapular positioning.
3. Neurologic- which is provided by proprioceptive awareness and proper mechanics with movements.
The shoulder consists of three gross anatomic structures that create static stability within the joint: the cartilaginous labrum, ligaments and capsule. The labrum is a rubbery cartilaginous ring that surrounds the shoulder socket (glenoid). It creates a greater surface area on the glenoid for the head of the humerus to sit comfortably. It is a very important stabilizing structure secondary to its ligamentous attachments.

Anterior instability is the most common form of instability and is usually secondary to a tear in the anterior and inferior labrum called a Bankart lesion. This can be associated with a bony depression in the posterior aspect of the head called a Hill Sachs lesion. It is also usually associated with stretching of the anterior band of the inferior glenohumeral ligament and the axillary pouch. Surgical reconstruction is usually via repair of the Bankart lesion (either arthroscopic or open) with tightening of the ligaments. Sometimes the Hill Sachs lesion is so large that it has to be addressed as well, but this is less common. Also, the Bankart lesion can include some bone of the glenoid which might require screw fixation. Instability can be complex as defects can occur in either the soft tissue or bone and can occur on either the glenoid (cup) side or humeral (ball) side or a combination of both. Determining the most appropriate and predictable surgery requires assimilating of all the data including age of the patient, activity level, and structural defects. Surgeries can include everything from arthroscopic labral repairs and tendon transfers to open stabilization with bone grafts (like the Latarjet) to partial replacements.

Goals & Guidelines: With stabilization surgeries, we focus on isometric strengthening and progress to isokinetic and then functional strengthening. The emphasis is not initially on ROM as much as it is with other surgeries given that the goal is to tighten up the shoulder. Shoot for about 75% of normal ROM by about 3-4 months. The protocol focuses on the operative arm but please also work on core strength and conditioning for total rehabilitation of the athlete. Patients are in an immobilizer/sling for 6 weeks. While sleeping, the arm should be kept in the plane of the body with pillows or blankets under the operative elbow. The patient is allowed to use the operative arm for waist level and midline activities such as personal hygiene care but is to do no lifting, pushing or pulling with the arm. The degree of allowed ER for these waist level activities is dictated by

postoperative time and is delineated below. No combined ER and abduction until 6 weeks. Teach patient how to perform proper axillary hygiene by bending over at the waist (like doing pendulum exercises).

0 – 2 Weeks
-Start scapular depression, retraction, protraction and elevation.
-Start IR, ER and abduction isometrics
-ER limited to neutral

2 – 4 Weeks
-Supine Active Assisted Forward Elevation (SAAFE) to 120° and External Rotation with stick limited to 30°.

4 – 6 Weeks
-Start sub-maximal 4 Way Theraband Strengthening exercises.
-Increase ER to 45°.
-Increase FE to 140°.

6 – 8 Weeks
-Start Active Range of Motion in all planes except for combined abduction and ER
-Increase 4 Way Shoulder Theraband Strengthening

8 – 12 Weeks
-Patient may perform combined ER and abduction actively. Increase ER stretches of the abducted arm as tolerated.
-Begin more aggressive periscapular strengthening exercises that focus on the inferior trap and rhomboids by performing lower rows and seated rows
- Rhythmic Stabilization with Bodyblade beginning with patient's arm at 90°. Progressions can include increase in tempo and position. Further progression would be into a PNF pattern avoiding abduction and ER. Progress to standing and move into flexion, scaption, abduction and PNF patterns.
-At 10 weeks, full active motion is encouraged again not pushing the abduction ER
-Start more aggressive strengthening exercises at 10 weeks for deltoid and rotator cuff. Avoid behind the neck lat pull downs and military presses. No heavy lifting. Do not strengthen to the point of fatigue. Once the muscles are fatigued, they can no longer provide dynamic stability and the patient thus relies more on the static restraints that were just repaired.

12 –16 Weeks
- Push-up into wall with ball under uni-lateral hand focusing on scapular retraction. Progress to stability ball on a table while performing a push-up then. Progress to stability ball on the floor. Do not forget to set shoulder blades into the correct position.
-May start light bench press, more aggressive deltoid strengthening and lat pulls in front of body
-Continue Bodyblade endurance and proprioceptive exercises

16 – 20 Weeks
-Continue to increase the intensity of the strengthening exercises
-May start throwing program for overhead athletes.

24 Weeks
-Return to unrestricted activity