ARTHROSCOPIC BANKART REPAIR/CAPSULORRAPHY

A Bankart repair is the reattachment of the anterior labrum to the glenoid and an anterior capsulorrhaphy is a tightening of the joint capsule at the time of the labral repair.

Goals

- Protect healing tissue
- Control post-operative pain and swelling
- Improve post-operative range of motion
- Improve functional strength, stability, and neuromuscular control

Rehabilitation Principles

- Encourage life-long activity modification to reduce risk factors associated with re-injury. Work within the “safe zone” for upper extremity activity.
- Encourage integration of core strengthening with therapeutic exercises
- Re-establish voluntary and pain-free control of the rotator cuff to prevent rotator cuff shutdown and decrease humeral head migration with AROM. Exercising through the shrug sign may damage the repair. Progress through the following:
  - Isometrics
  - Active assisted elevation with eccentric lowering and isometric holds
  - Isotonics <90 degrees (“downstairs” or gravity eliminated)
  - Isotonics >90 degrees (“upstairs”)
  - Rhythmic stabilization
    - Flexion (prone and supine)
    - Internal/External rotation
  - Maintain scapular stabilization and mobility; proximal stability for distal mobility.
- *If the procedure is done open, instead of arthroscopically, protect the subscapularis repair for 6 weeks*

Post-op functional guidelines

- Work
  - Sedentary up to 14 days
  - Medium to high physical demand level will be job specific
    - Depending on functional demands of the job
    - Physician input is required to make final decision
- Sport
  - Golf no earlier than 12 weeks
    - Encouraging backward golfing
      - Beginning putting at 4 weeks
      - Utilize the driving range for all practice
      - Begin with short irons and partial swings progressing to long irons and full swing
      - Progress to drivers and hybrid by 12 weeks
  - Swimming
    - Kick board with arms at side at 2 weeks
    - Freestyle stroke no earlier than 14 weeks
  - Weight lifting no earlier than 12 weeks
    - Reinforce safe zone principles
    - Emphasize scapular stabilizers
    - Begin with individual muscles, single joint movement, and light weights progress to large muscle groups, multi-joint movements, and heavy weights
    - Incline bench, bench press, and military press begin at 24 weeks.
- Throwing

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- Emphasize proper biomechanics and proprioception with a functional progression through phases of throwing no earlier than week 6
- Initiate ER at 90° abduction at week 9
- Initiate interval throwing program no earlier than 12 weeks
- Throwing from the mound no earlier than 16 weeks
- Throwing from the mound, full velocity no earlier 20 weeks
- Contact sports
  - No earlier than 20 weeks

**Post op equipment guidelines**
- Sling with abduction pillow at all times except when bathing or performing exercises
- Begin weaning out of sling at 4 to 6 weeks per physician orders
- Polar Care as needed for pain and inflammation

**Rehabilitation for Bankart Repair**

**WEEK 1-4: Protective PROM Phase**

- **Precautions/Limits:**
  - No AROM
  - Limit passive flexion 120°
  - Limit passive external rotation to 20° at 0° abduction
  - Limit passive internal rotation to within the plan of the scapula.
  - No passive abduction
  - No passive extension past 0°
- **Clinical Expectations by end of week 4**
  - Flexion to 120°
  - External rotation to 20°
  - Achieve PROM to post-op restrictions by end of week 4.
- **Treatment**
  - PROM for shoulder elevation such as pulleys, pendulum, or manual passive range
  - Grade I – II mobilizations and modalities
  - Isometric scapular setting and scapular AROM such as scapular clocks, shoulder shrugs, or shoulder squeezes
  - Sub-maximum pain free isometric contraction of the rotator cuff with gradual increase in force production.
  - Initiate internal/external rotation with resistance with respect to tissue reactivity and within ROM limitations
  - Gravity reduced rhythmic stabilization at 90° of flexion in scapular protraction beginning gradually with light resistance and progressing from proximal to distal.
  - Initiate elbow, hand, and finger AROM and PREs for total arm strength
  - Initiate core strengthening exercises utilizing the Wellington Functional Foundation Model

**WEEK 5 – 8: AROM Phase**

- **Precautions/ Limits:**
  - Limit flexion and scaption to 150°
  - Limit abduction to 120°
  - Limit external rotation to 60° at 0° abduction and 45° at 45° abduction
- **Clinical Expectations by end of week 8**
  - Flexion and scaption to 150°
  - Abduction to 120°
  - External rotation to 60° at 0° abduction and 45° at 45° abduction
  - Achieve AROM to 90° of scaption
  - Achieve upper trap level for functional ER
  - Achieve iliac crest level for functional IR
  - Achieve 4-/5 strength for ER at 0° abduction
- **Treatment**
• Progress to grade III-IV mobilization if not meeting passive range of motion expectations
• AAROM for shoulder elevation such as pulleys, wand, wall walks, or manual assisted range
• AROM progressed from AAROM
• Progress from gravity reduced to gravity resisted elevation
• Passive posterior shoulder and IR stretching
• Functional IR stretch with scapular stabilization such as reaching behind the back at week 6
• Initiate partial weight bearing exercises such as wall push up at week 6
• Initiate 2 handed plyometrics at week 6
• Emphasize integration of core strengthening into therapeutic exercises utilizing the Wellington Functional Foundation Model

WEEK 9-12: Strengthening Phase
• Precautions/limits
  • Progress symptomatically
• Clinical expectations by end of week 12
  • Flexion and scaption to 160°
  • External rotation to 90° at 90° abduction
  • Achieve 150° of active elevation without shrug sign
  • Achieve C7 level for functional ER
  • Achieve L5 level for functional IR
  • 4/5 strength for ER at 0° abduction
• Treatment
  • Initiate ER at 90° abduction at 9 weeks
  • Grade III-IV joint mobs if indicated
  • Progress resistance and reps with isotonics throughout phase concentrating on eccentric limb control
  • Advance proprioception per rehabilitation principles
  • Advance weight bearing exercises per rehabilitation principles
  • Initiate 1 handed plyometrics at week 8
  • Initiate overhead plyometrics at week 10
• Progress integration of core strengthening into therapeutic exercises utilizing the Wellington Functional Foundation Model

WEEK 13+: Functional Training
• Precautions/Limits
  • Progress symptomatically
• Clinical expectations by the end of week 16
  • Achieve symmetrical AROM for elevation without shrug sign.
  • Achieve symmetrical functional ER and IR.
  • Achieve 4+/5 strength for ER at 0° abduction
  • Achieve 4/5 strength for ER at 90° abduction
  • Achieve symmetrical strength at 90° abduction
• Treatment
  • Initiate sports specific training
  • Progress isotonics, isokinetics, and rhythmic stabilization
  • Continue PNF and plyometrics in open and closed kinetic chain
  • Continue to progress rotator cuff and scapular strengthening and proprioception encouraging working shoulder safe zone principles
  • Continue to progress core strengthening utilizing the Wellington Functional Foundation Model
  • Lower extremity strengthening and stretching
  • Return non-overhead athletes back to sports as tolerated per post op functional guidelines.
References

- Davies GJ, Ellenbecker TS: Focused exercise aids shoulder hypomobility. Biomechanics; 1999, 77-81
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- Spaega AA, Quendenfeld TC. Biophysical factors in range of motion exercises. Physician and sports medicine, 1981 9: 57-65