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Arthroscopic Bankart Repair Protocol

Revised 2023

*****Please refer to written prescription for any special instructions for each case*****

This protocol guides a progressive return to full activity between 4-6 months for non-throwers (may take longer for throwers) if all the criteria are achieved. If the criteria are met sooner, the patient must restrict their activity level until the appropriate timeframe based on this protocol. If the patient has a concomitant surgical procedure, treatment will likely vary. Please consult with the surgeon.

Weeks 0 to 6: (Initial PT evaluation is usually scheduled within 2 weeks from surgery date)

Precautions:

- Wear sling at all times (including sleep), except for bathing and while performing physical therapy exercises
- No range of motion or stretching beyond staged goals
- No active forward elevation or external rotation
- No passive external rotation at 90° abduction
- No weight bearing/closed chain exercises through involved UE

Goals:

- Discontinue sling use no sooner than 6 weeks post-op
- Protect surgical repair and allow capsule-ligamentous-labral healing
- Minimize effects of immobilization
- Decrease pain and inflammation
 - Facilitate distal UE circulation and prevent distal swelling
- Gradually regain shoulder motion with staged passive range of motion goals
- Patient/Family education

Interventions:

- Supported pendulums (no weight)
- Shoulder forward elevation and abduction PROM/AAROM
 - Weeks 0-3: < 90°
 - Weeks 3-6: < 135°
- Shoulder ER PROM/AAROM with arm supported in scapular plane
 - Weeks 0-3: ER at 20° of abduction < 30°
 - Weeks 3-6: ER at 20° of abduction < 45°
- Scapular stabilization
- Shoulder submax isometrics (all directions)
- Elbow and wrist ROM
- Gripping exercises
- Ice as needed

Weeks 6 to 12:

Precautions:

- No range of motion or stretching beyond staged goals
 - Gentle stretching to gain end range ER at neutral or ER at 90° in plane of scapula if significant limitation exists

- If patient is hypermobile, avoid aggressive stretching
- Avoid strengthening exercises that place shoulder in end-range shoulder horizontal abduction beyond frontal plane (e.g. push-ups, bench press, dumbbell flies)

Goals:

- Full functional shoulder ROM by week 12
- Normalize arthrokinematics of glenohumeral and scapulothoracic joints
- Improve shoulder girdle strength and proprioception
- Decrease pain and inflammation
- **Initiate weight-bearing/closed kinetic chain activities at week 10**

Interventions:

- Shoulder forward elevation and abduction ROM
 - Weeks 6-9: gradual progression of motion to PROM 135-155°, AROM 115-145°
 - Weeks 9-12: gradual progression of motion to full PROM, AROM 145°-WNL
- Shoulder ER ROM
 - Weeks 6-9: ER at 20° in plane of scapula 35°-65°, ER at 90° in plane of scapula 45°-75°
 - Weeks 9-12: ER at 20° in plane of scapula 65°-WNL, ER at 90° in plane of scapula 75°-WNL
- Shoulder progressive resistive exercise (IR/ER/Extension/Abduction/Scaption/Forward Elevation)
 - Begin with non-provocative positions progressing to end ranges by weeks 12
- Scapular stabilization
- Non-provocative Proprioceptive Neuromuscular Facilitation
 - Scapular and UE patterns
 - Rhythmic Stabilization (body blade, manual perturbation, etc.)
- Weight-bearing exercises: wall/table push-ups, shoulder taps on table, high planks, push-up plus, etc.
- Incorporate lower extremity strengthening/core stability into program

CRITERIA TO ADVANCE – 3-month assessment

- Full pain-free shoulder AROM with normal arthrokinematics
- Objective shoulder strength $\geq 75\%$ limb symmetry using hand-held dynamometer or isokinetic testing
- Push-up test: 5 push-ups with good symmetry and pain free
- Upper Quarter Y balance Test (medial reach only): $\geq 90\%$ of limb length (measure C7 to middle fingertip)

Weeks 12 to 16:

Goals:

- Full AROM and PROM without pain and with good mechanics
 - Gradually restore ER at 90° of abduction to achieve sport demands
- Begin jogging (start with straight ahead jogging to minimize fall risk)
- Progress closed chain/full weight bearing exercises
- Initiate shoulder ER/IR strengthening at 90° in plane of scapula
- Initiate UE plyometrics if above criteria are met
- Improve UE and scapula muscular strength and endurance

Interventions:

- Rotator cuff strengthening; progress to strengthening at 90° in plane of scapula
- Progress scapula stabilization exercises
- Resisted diagonal patterns (PNF)
- Thrower's Ten

- Begin UE plyometrics: double arm initially (chest pass, side throws, and overhead throws, plyo wall/counter push-ups), progress to single arm (wall ball dribbles, weighted ball drills, pre-throwing drills, etc.)

Weeks 16 to 24:

Goals:

- Enhance muscle performance and functional motion specific to sport demands
- Incorporate all components of kinetic chain and systems into rehab (e.g. lower extremity, trunk, cardiovascular conditioning and flexibility)
- Maximize neuromuscular control
- May gradually advance intensity using gym machines and free weights
 - Avoid motion extremes (arms moving posterior to frontal plane of body)
- Initiate sport specific training
 - Possible full return to sport for non-throwers (if return to sport criteria are achieved)
 - Initiate interval throwing program if below criteria are met (**no sooner than 5 months**)

Interventions:

- Address ongoing UE strength deficits (based on objective measurements)
- Eccentric posterior rotator cuff exercises for throwers
- Power lifting if appropriate based on age of patient, skeletal maturity, and sport demands (increasing weights with less repetitions)
- Advance plyometric and closed chain exercises based on individual sport demands
- Continue to address core/lower extremity strengthening and flexibility deficits

CRITERIA FOR RETURN TO FULL SPORT ACTIVITIES – 4-6 month assessment

- Pain free
- Full shoulder AROM based on sport specific demands
- Normal and symmetrical scapulohumeral rhythm with adequate scapular control
- Objective shoulder strength testing $\geq 90\%$ limb symmetry (measured using hand-held dynamometry or isokinetic testing)
- Functional testing:
 - Upper Quarter Y-Balance Test (best of 3 trials)
 - Medial reach distance $\geq 95\%$ of limb length
 - ≤ 4 cm difference between limbs in all directions
 - $\geq 90\%$ limb symmetry
 - Composite score 70-80%
 - Single-Arm Seated Shot Put Test (average of 3 trials)
 - $\geq 90\%$ limb symmetry if non-dominant arm is involved
 - $\geq 105\%$ limb symmetry if dominant arm is involved
 - Closed Kinetic Chain Upper Extremity Stability Test (average of 3 trials, 15 sec each)
 - Testing parameters:
 - Push-up position
 - Tape width:
 - ≤ 11 years old: 24 inches
 - ≥ 12 years old: 36 inches
 - Passing criteria:
 - ≥ 17 average touches with good neuromuscular control
- Additional Criteria for Throwers (no sooner than 5 months)
 - Shoulder ROM
 - Total arc of motion/rotation at 90° within 5° of non-throwing shoulder
 - $\leq 20^\circ$ loss of internal rotation ROM at 90° compared to non-throwing shoulder
 - $\leq 5^\circ$ loss of flexion ROM compared to non-throwing shoulder
 - $\leq 15^\circ$ loss of horizontal adduction ROM compared to non-throwing shoulder
 - Strength
 - ER/IR strength ratio between 66% to 76%
 - Once all criteria are met, thrower may begin a long toss throwing program

Months 6+:

Goals:

- Gradual return to full unrestricted sport activities once above criteria are met
 - Pitchers must complete long toss throwing program before advancing to a pitching program
- Maintain ROM, stability, and neuromuscular control
- Achieve maximal strength, endurance and power based on sport demands

This protocol is designed to be administered by a licensed physical therapist and/or certified athletic trainer. Please do not hesitate to contact our office should you have any questions concerning the rehabilitation process. Protocol adapted from Gaunt et al, JOSPT, 2010.

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