BATON ROUGE ORTHOPAEDIC CLINIC

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Posterior and Posterior Inferior Capsular Shift Protocol:

The intent of this protocol is to provide the clinician with a guideline of the post-operative rehabilitation course of a patient that has undergone a posterior capsular shift procedure. It is by no means intended to be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam/findings, individual progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient they should consult with the referring Surgeon.

Protection Phase (0-6 weeks):

Precautions

- Postoperative brace (typically gunslinger type) in 30-45° abduction, 15° external rotation for 4-6 weeks
- Brace to be worn at all times (even when sleeping) with the exception of exercise activity and bathing
- No overhead activity
- No flexion for first 6 weeks

Goals:

- Allow/promote healing of repaired posterior capsule
- Initiate early protected ROM
- Retard muscular atrophy
- Decrease pain and inflammation

Weeks 0-4

Exercises

- Gripping exercises with putty
- Active elbow flexion-extension and pronation-supination
- Active ROM cervical spine
- Passive ROM progressing to active-assisted ROM of GH joint

- External rotation to 25-30° at 30-45° of abduction

- Internal rotation to 15-25° at 30-45° of abduction (<u>begin week three</u>)
- Submaximal pain free shoulder isometrics in the plane of the scapula
    - Flexion
    - Abduction
    - Extension
    - External rotation
    - **Avoid IR at this point**

<u>Note:</u> In general all exercises begin with one set of 10 repetitions and should increase by one set of 10 repetitions daily as tolerated to five sets of 10 repetitions.
<u>Cryotherapy:</u> Ice after exercises for 20 minutes. Ice up to 20 minutes per hour to control pain and swelling.

Weeks 4-6

Goals
- Gradual increase in ROM
- Normalize arthrokinematics
- Improve strength
- Decrease pain and inflammation

Range of motion exercises
- Active-assisted exercises of GH joint
    - External rotation in multiple planes of shoulder abduction (up to 90°)
    - Shoulder flexion to tolerance
    - Elevation in the plane of the scapula to tolerance
    - Shoulder abduction (pure) to 90°
    - Internal rotation 35° at 45° of abduction
- Pulleys (AAROM)
    - Shoulder elevation in the plane of the scapula to tolerance
    - Shoulder flexion to tolerance
- **<u>Gentle</u>** self-capsular stretches as needed/indicated

Gentle Joint Mobilization (Grades I-II) to Reestablish Normal Arthrokinematics
- Scapulothoracic joint
- GH joint (avoid posterior glides)
- SC joint
- AC joint

AROM Exercises
- Active abduction to 90°
- Active external rotation to 90°
- IR to 35°

Strengthening Exercises

- Elbow/wrist progressive resistive exercise program

Conditioning Program For

- Trunk
- Lower extremities
- Cardiovascular endurance

Decrease Pain and Inflammation

- Ice and modalities prn

Brace

- Discontinue 4-6 weeks post surgery per physicians instruction

Phase 2: Intermediate Phase (Weeks 6-12)

Goals:

- Full, nonpainful ROM at week eight (patient will not have full IR at this time)
- Normalize arthrokinematics
- Enhance strength
- Improve neuromuscular control

Weeks 6-9

Range of Motion Exercises

- A/AROM to AROM as appropriate
  - External rotation to tolerance
  - Shoulder abduction to tolerance
  - Shoulder flexion to tolerance
  - Pulleys: flexion, abduction, and elevation in the plane of the scapula to tolerance
  - Internal rotation to no more than 40°

Joint Mobilization

- Continue as above as indicated

Strengthening Exercises

- Initiate IR isometrics in slight ER (do not perform past neutral)
- Initiate theraband for internal and external rotation at 0° abduction (IR later in the phase)
- Initiate isotonic dumbbell program
  - Shoulder abduction
  - Shoulder flexion
  - Latissimus dorsi
  - Rhomboids
  - Biceps curl

- Triceps kick-out over table
- Push-ups into wall (serratus anterior)

Weeks 10-12

- Continue all exercises listed above

Initiate

- Active internal rotation at 90° GH abduction with elbow at 90° flexion
- Dumbbell supraspinatus
- Theraband exercises for rhomboids, latissimus dorsi, biceps, and triceps
- Progressive push-ups

Phase 3: Dynamic Strengthening Program (Weeks 12-18)

Criteria for Progression to Phase 3

- Full, nonpainful ROM
- No complaints of pain/tenderness
- Strength 70% of contralateral side

Weeks 13-15

Goals

- Enhance strength, power, and endurance
- Enhance neuromuscular control

Emphasis of Phase 3

- High-speed/high-energy strengthening exercises
- Eccentric training
- Diagonal patterns

Exercises

- Continue internal and external rotation theraband exercises at 0° abduction (arm at side)
- Theraband for rhomboids
- Theraband for latissimus dorsi
- Theraband for a biceps and triceps
- Continue dumbbell exercises for supraspinatus and deltoid
- Progressive serratus anterior push-up-anterior flexion
- Continue trunk and lower extremity strengthening and conditioning exercises
- Continue self-capsular stretches

Progress to:

- Isotonic shoulder strengthening exercises isolating the rotator cuff-including sidelying external rotation, prone arm raises at 0, 90 & 120°, prone external rotation, and internal rotation at 0 & 90°; progress to standing strengthening exercise once able to tolerate resistance against gravity without substitution
- Progress scapulothoracic/upper back musculature strengthening exercises
- Dynamic stabilization exercises
- Proprioceptive Neuromuscular Facilitation (PNF) exercises

Phase 4: Return to Activity Phase (Weeks 21-28)

Criteria for Progression to Phase 4

- Full ROM
- No pain or tenderness
- Satisfactory clinical examination

Goal

- Progressively increase activities to prepare patient for unrestricted functional return

Exercises

- Continue theraband, and dumbbell exercises outlined in phase 3
- Continue ROM exercises
- Initiate interval programs between weeks 28 and 32 (if patient is a recreational athlete)
- Continue strengthening exercises for scapular and rotator cuff muscles
- Progress to functional activities needed for ADL's and sport
- Thrower's ten program (see protocol)