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REHABILITATION PROTOCOL FOR POSTERIOR SHOULDER STABILISATION

Physiotherapy Protocol

The following is intended to guide your Physiotherapist through the basic post-operative rehabilitation process. Each patient may still require individualised modifications of their program by their Physiotherapist depending on the extent of their original injury, type of surgery performed, pain level, degree of stiffness and strength.

Shoulder Sling Immobilization:

6 Weeks: Neutral Rotation Sling;
On during the day and night - only off for Rehab & Showering

Important Movement Restrictions:

Internal rotation exercises not to be commenced until 6 – 8 weeks
Horizontal Flexion Exercise not to be commenced until 8 – 10 weeks

Dosages

Range of motion exercises performed 2-3 times a day.
Strength control work/endurance performed 1-2 times per day.
Hypertrophy work performed, maximum 1 per day, 3days/wk.

0-2 Weeks

Come out of Sling for exercises only.

Elbow, Wrist, Forearm and hand:

- Full active range of motion

Pendular exercises

- Bent over, arm supported range within pain limits
    - Flexion/Extension to a maximum of 90°
    - Circular Motion
    - **No Horizontal Flexion**

2-4 Weeks

Come out of Sling for exercises only.

Pendular exercises

- Continue as above but gradually increase movement within pain limits
- Continue to avoid Horizontal Flexion

Assisted active in supine

- Flexion; arm supported with elbow bent up to 100° or as pain allows
    - Patient may need support behind humeral head to stop humeral head falling posteriorly onto the repair
    - Alternatively can perform supported flexion in a table slide drill
- External rotation (ER) at 0° abduction with elbow supported on towel:
    - Assist arm out into ER with other hand or stick within pain limits
    - Can be performed in supine or supported sitting

Isometric scapula exercises

- Upward rotation, +/- elevation.
- Optional to set into a small amount of retraction or squeeze of shoulder blades
    - However do not over-do retraction or posterior tilt as this will angle the glenoid posteriorly.

4-6 Weeks

Pendular exercises

- Continue as above as a gentle warm up; x 5-10 of each

Assisted active in supine

- Flexion with arm supported or using a stick within pain limits.
    - Can alternatively be performed as a table slide in standing
- External Rotation as above comfortably
    - Can be performed in sitting

Isometric scapula exercises

- Set the scapula into correct position as determined by assessment.

Isometric glenohumeral joint exercises.

- Isometric ER, IR, Ext, Flex, Abd, Add in standing painfree pushing against the wall or against the other hand

Commence assisted extension in standing

6-8 Weeks

<u>Range or motion</u>

Increase all assisted active range of motion drills:

- Flexion with a stick in supine progress as tolerated and may now commence in standing – assisted active progressing to active
- External rotation drills in supine as above progressing to greater abduction angles up to 90° Abduction
- Extension drills progress to full range of motion as tolerated

Hand behind back stretches can be commenced within pain free range

Internal rotation range can commence in supine at 30° abduction with support under the elbow – ensure no posterior joint line pain with the drill – limit the arc to 30°-40° internal rotation until 8 weeks

Strength

Scapula Control

- Emphasis needs to be on developing scapula strength through upward rotation of the scapula – care needs to be taken not to overly posterior tilt the scapula as this places the glenoid posteriorly.
- Upward rotation shrugs are performed in 20°-30° abduction
    - commence with 1/2kg – 4- 5kg max
- No weight-bearing scapula stabilization drills until minimum 12 weeks and then only if sufficient posterior humeral head control & strength that the humeral head is not translating posteriorly

Posterior Cuff & Posterior Deltoid

- Emphasis is on posterior muscle control. Posterior deltoid and posterior rotator cuff need to be developed so that sufficient bulk posteriorly is developed to work as a buttress to prevent posterior humeral head translation.
- Posterior deltoid extension drill & external rotation best to be performed with theraband initially as across gravity drills and not going past 30° of flexion as starting position for row
- Usually commence with red rubber in Extension & ER drills
- Only once sufficient posterior bulk / control is achieved can internal rotation strength work commence otherwise humeral head can translate excessively posteriorly
- Usually once Green theraband strength is achieved with the row /+ ER then can commence IR strength work

8-12 Weeks

Range of motion

- Range of motion for all movements can progress as pain allows into higher ranges of elevation
- IR assisted active drills can commence in supine into higher ranges
- HF drills can now commence as pain tolerated but do not force or sustain and are not to be performed if any posterior joint pain is felt

Strength

- Sidelying ER can commence but must be performed off a support so arm does not fall into positions of Horizontal flexion
- Bent over row – keep elbow bent and do not perform in full range of flexion.
- Anterior deltoid & serratus anterior drills – best to commence in standing not in supine
- Start below 90 shoulder elevation in plane of the scapula – gradually working around into flexion & above 90 as posterior bulk is developed
- Mid deltoid work can commence with elbows bent
- Posterior deltoid work is progressed into higher ranges of abduction either through a theraband row or bent over row
- External rotation range is also progressed into higher ranges of abduction either with theraband or a weight into supported sitting until 90° control achieved
- Internal rotation progressed into higher ranges as tolerated

12 Weeks+

- Progress ER strength into positions of incrementally greater ranges of Horizontal flexion as tolerated- either through supported sitting or a band
- Eventually need to strengthen HE extension & ER strength combinations
- Once rehabilitation targets are hit strength work can continue into above head strengthening positions, functional positions, weight bearing and increase gym loading

In gym; full range bench press, long lever flexion weights or overhead press should be avoided for 6 months or as determined by strength measurement assessment.

Rehabilitation Strength Targets

Below are minimum physiotherapy targets to achieve before patients move independently to gym or specific sporting skills as determined by each individual strength measurements.

Weights commence with 1/2kg and progress in 1/2kg increments

Theraband – usually commence red and progress to green or blue

Anterior deltoid – 3 -4 kg 2 sets of 20 reps

Posterior deltoid – 3-4 kg 2 sets of 20 reps

Middle deltoid – 3-4kg 2 sets of 20 reps

Shrugs – max 4 - 5 kg 2 sets of 20 reps

Sidelying ER – 2 -3kg max 2 sets of 20 reps

ER / IR – at 90° with Green theraband 2 sets of 20 reps