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Superior Labrum Repair Protocol - SLAP

Stage I (0-4 weeks):

Key Goals:

- Protect the newly repaired shoulder.
- Allow for decreased inflammation and healing.
- Maintain elbow, wrist and hand function.
- Maintain scapular control.

1. Immobilizer use:
    a. The immobilizer will be placed on patient's shoulder in surgery.
    b. The patient may remove the immobilizer for dressing and hygiene.
    c. The patient should wear the immobilizer full-time for four weeks.

2. Restrictions:
    a. No shoulder elevation or internal rotation.
        i. The capsular repair is stressed with movement into internal rotation. Since the repair is performed with the shoulder in a neutral position internal rotation must be limited for six weeks following the repair.
    b. When arm is out of the immobilizer, forearm needs to stay away from the abdomen. The hand should remain with "thumb up" and in the plane of the brace.
    c. Acceleration of rehabilitation for "fast healers" may reduce results and lead to long-term problems.

3. Exercises:
    a. Pendulum exercises.
    b. Active assistive range of motion of the involved elbow, wrist and hand in the plane of the body. The patient may progress to active range of motion as comfort improves.
    c. Scapular control exercises (Immobilizer on)
    d. Core training(Immobilizer on)

Stage II (5-15 weeks):

Key Goals:

- Full active elevation at 12 weeks from surgery.
- Normal scapular mechanics 12 weeks from surgery.
    - Scapular mechanics should be evaluated on a regular basis.
- Normal scapular stabilizer, rotator cuff and core strength at 16 weeks from surgery.

1. **Weeks 5-6:**
    a. Brace use:
        i. Immobilizer will be used at this time while sleeping until six weeks post-op.
        ii. Sling is worn during the day for comfort. Wean as comfort improves.

    b. Range of motion:
        i. Internal rotation:
            1. Passive to active assistive to active range of motion as able.
            2. **No posterior capsule stress.**
            3. **No prolonged internal rotation end range holds.**
            4. **Avoid abduction and external rotation (throwing position)**

        ii. External rotation:
            1. Passive to active assist to active range of motion as able
                a. Begin in supine with scapula stabilized, and progress to other postures as tolerated.

        iii. Flexion/Scaption/Abduction:
            1. Passive to active assistive to active range of motion as able.
                a. Supine with scapula stabilized.

        iv. Gleno-humeral mobilizations:
            1. No posterior glides until 10 weeks from surgical date.

    c. Balance and core training:

    d. Strengthening (4 weeks):
        i. Isometric shoulder strengthening
            1. Internal/External Rotation

ii. Core training.

2. **<u>Week 7:</u>**

a. Immobilizer use at night can be discontinued.

b. Range of motion:
    1. As tolerated no limits.

c. Strengthening:
    i. Scapular stabilizer strengthening.
    ii. Core training.

3. **<u>Week 8:</u>**

- **Warning: No soreness with rotator cuff strengthening.**
- **The program must be modified to avoid cuff aggravation.**

a. Balance training.

b. Range of motion:
    i. No posterior apprehension or impingement.

    ii. Scapular mechanics need to be functioning properly and if not need to be addressed.

    iii. Hip mobility:
        1. Deficits should be addressed in preparation for eventual return to throw program.

c. Strengthening:
    i. Scapular mechanics.
        1. Lower and middle trapezius strengthening should be an integral part of the rehab program to assure proper scapular mechanics.
    ii. Forearm strengthening.
    iii. Rotator cuff strengthening.
    iv. Core training.

4. **Week 12:**
    a. Testing:
        i. Full pain free active range of motion for elevation and internal rotation.
        ii. A 20 degree difference in shoulder internal rotation is acceptable.
        iii. Normal scapular mechanics.
        iv. ROM is within 10 degrees of other side.
            1. ROM should be within 5 degrees or less by 16 weeks.
        v. Squat screen.
        vi. Hurdle step screen.
        vii. Shoulder mobility screen.
        viii. Hand held dynamometer:
            1. 0 degrees with arm at side IR and ER.
            2. Seated IR and ER at 90 degrees of abduction and 45 degrees of external rotation.
            3. ER/IR=65%

Warning:

- **Any deficits in mobility, stability, or scapular mechanics need to be addressed now prior to beginning return to throw program at 20 weeks.**

    b. Range of motion:
        i. Any flexibility deficits need to be addressed before return to program begins at 16 weeks.
            1. See above testing.
            2. **Begin gentle sleeper stretch.**
            3. **Begin external rotation/pectoral stretching**

    c. Strengthening:
        i. Scapular stabilizer.
        ii. Rotator cuff.
        iii. Plyometric training
            i. Upper extremity.
            ii. Lower extremity.
        iv. Core training.
        v. Endurance training.

Stage III (Weeks 20-26)

Initiation of Interval Sport Program for Baseball, Tennis, and Golf:

- Return-to-sport activities after injury that include attention to the entire body.
- A gradual progression of applied forces to lessen the chance of re-injury.
- Proper warm-up and maintenance exercises.
- Proper biomechanics to minimize the chance of re-injury.
- Variability is based on each athlete's skill, level, goals and injury.
- Program needs to be followed rigidly. Some athletes will try and rush through the plan.
    - No skipping of steps is allowed.
    - Patient must demonstrate successful completion of each step.
- Program should be supplemented with a high-repetition, low intensity weight training program focusing on the posterior rotator cuff and scapular musculature.
- Outcome measures:
    - PSFS: Patient specific functional scale.
    - Quick Dash: Quick disabilities of the arm, shoulder and hand score.

1. Basic menu of program:
    a. Warm-up.
    b. Stretch.
    c. 1 set of each exercise prior to ISP.
    d. ISP.
    e. 2 sets of each exercise.
    f. Cryotherapy.