Post Op and Non Op Protocol

Physical Therapy & Strength and Conditioning

Proximal Humerus Fracture

Phase I – Maximum Protection (Weeks 0-6)

Goals

- Reduce inflammation
- Decrease pain
- Postural education
- PROM as instructed
- Evaluate or discuss with patient regarding any distal injuries, radial nerve injuries are not common, however need to be addressed early in rehab. Patient may exhibit "wrist drop" or numbness and require intervention.

Restrictions/Exercise Progression

- Sling x 6 weeks
- Ice and modalities to reduce pain and inflammation
- Cervical ROM and basic deep neck flexor activation (chin tuck)
- Instruction on proper posture (head, neck and shoulder alignment)
- Active hand and wrist range of motion
- Passive/AA biceps range of motion
- Active shoulder retraction
- NO shoulder range of motion x 2weeks
- *ROM instructions will differ among referring physicians, it is important to communicate with each Dr. prior to beginning ROM exercises to specify when each patient can begin*
- Passive range of motion (wks 2-6):
  - ⇒ Flexion 90 degrees (wks 2-4), 120 degrees (wks 4-6), then gradually progressing as tolerated
  - ⇒ External rotation 0-30 degrees (wks 2-4), 30-60 (wks 4-6), then gradually progressing as tolerated
- Early ROM is key, although painful, range of motion is often restricted with this rehab.

Manual Intervention

- STM – global shoulder, cervical spine and elbow
- Scapula mobilization (although the patient may be reluctant to be positioned in sidelying)
- CT junction mobilization and stm (although the patient may be reluctant to move into prone position)

Phase II – Progressive Stretching and Active Motion (Weeks 6-8)

Goals

- Discontinue sling
- Gradual progression with passive range of motion (emphasis on ROM with HEP)
- Postural education

Exercise Progression

- Progress range of motion to include A/AAROM
  - ⇒ Use a combination of wand, pulleys, wall walks or table slides
- Serratus activation; ceiling punch (weight of arm) and patient may need assistance
- Scapula strengthening – prone scapular series (Rows and I's)
- Low to moderate cardiovascular work

Manual Intervention

- STM – global shoulder, cervical spine and elbow as needed
- ST and CT mobilization

Phase III – Strengthening Phase (Weeks 8-12)

Goals

- Emphasis on range of motion
- Activation of RC/SS with isometric and isotonic progression
- Continue posterior chain strengthening

Exercise Progression

- Passive and active range of motion/stretching; attempting to maximize range of motion for ADLs
- Add resistance to ceiling punch
- Sub-maximal rotator cuff isometrics (no pain)
- Advance prone series with weight or by adding T's
- Add rows or shoulder extension pull-downs
- Supine PNF patterns
- Bicep and triceps
- Scaption—focusing on good scapular thoracic and scapular humeral kinematics

Weeks 10-12

- Therapist directed quadruped or counter top weight shifts

Manual Intervention

- STM and joint mobilization to CT junction, GHJ and STJ as needed
- PNF patterns
- Manual perturbations

Phase IV – Advanced Strengthening (weeks 12-20)

*It is important to prioritize the patient's needs and goals. Many patients will not progress to this phase and will benefit more from increased manual treatment and focus on restoring range of motion

Exercise Progression

- Stretching: TUB, sleeper, door/pec stretch, open book
- Return to gym adding lat pulls, anterior shoulder/chest and above 90 degrees as tol.
- Progress rotator cuff strengthening to include band work or resistive training at the gym
- Initiate plyometric or rebounder drills as appropriate

Return to Sport (RTS- weeks 20-24)

- Continue with gym/home strengthening program as outlined
- RTS testing for interval programs (golf, tennis, etc) Microfet testing as appropriate
- Follow up examination with physician (6 months) for release to full activity