



Hemiarthroplasty for Proximal Humerus Fracture: Protocol

Basis

- Tuberosities are repaired to prosthesis and bony healing must occur before stress is applied to rotator cuff tendons
- Tuberosity migration causes stiffness from mechanical impingement
- Tuberosity migration causes weakness from abnormal soft tissue tension

Precautions

- No external rotation past 40 deg for 6 weeks
- No active internal rotation for 6 weeks
- No cross body adduction for 6 weeks
- No lifting/pushing/pulling > 5lb for first 6 weeks

Inpatient: (0-4 days)

- Instruct to don and doff sling or shoulder immobilizer
 - Shoulder should be completely immobilized at all times except to change
- Instruct on proper use of ice or PolarCare
 - 20-30 minutes at a time, several times per day
 - Should be done especially after exercises
- Instruct in home program, and begin, cervical, elbow and wrist range of motion
- Instruct in home program, and begin grip strengthening
- Arrange for outpatient physical therapy follow-up to begin on day after office follow-up

Other Instructions:

Mepore to wound until dressing totally dry

May shower at 10 days but no bath or hot tub for 3 weeks

No anti-inflammatory medications x 6 weeks unless on ASA for other reasons

Outpatient Physiotherapy Phase 1: (Hospital discharge to Week 4)

ROM

- Continue cervical, elbow and wrist ROM
- Pendulum exercises only
- No passive ROM or self-assisted ROM yet
- No mobilizations

Strengthening

- No cuff strengthening
- Begin and instruct in program of postural correction
- May begin scapular retraction and depression

Sling

- Arm in sling at all times except for exercises and bathing (Includes sling at night)

Other

- Continue cryotherapy
- Incision mobilization and desensitization
- Modalities to decrease pain and inflammation

Outpatient Physiotherapy Phase 2: (Weeks 4-8)

ROM

- Instruct in home program and begin self-assisted forward elevation to 90 deg and progress in 20 deg increments per week. May use pulleys
- Instruct in home program and begin self-assisted ER to 40 deg
- IR in scapular plane as tolerated
- No IR behind back
- No cross body adduction
- Grade I-II scapulothoracic and glenohumeral mobilizations

NOTES: Hydrotherapy program is okay provided the limits of no active internal rotation and ER limit to 40 deg are kept. Should not begin prior to week 3 so wound is fully healed

Strength

- No cuff strengthening
- Continue scapular retraction and depression
- Lower extremity aerobic conditioning

Sling

- May discontinue use of the sling

Other

- Continue modalities to decrease pain and inflammation
- Incision mobilization and desensitization techniques
- Continue cryotherapy as necessary

Outpatient Physiotherapy Phase 3: (Weeks 8-12)**ROM**

- Progressive return to full forward elevation and external rotation
- May begin posterior capsular stretching program
- May begin IR behind back
- Grade III-IV glenohumeral and scapulothoracic mobilizations
- Begin anterior chest wall stretches (pectoralis minor)

Strength

- Instruct in home program and begin submaximal isometrics in flexion, abduction, IR, ER and extension
- Add progressive isotonic with low resistance, high repetitions as tolerated
- Progressive two-hand supine
- Emphasize anterior deltoid strength and scapular stabilization
- Emphasize upper trapezius, serratus anterior force couple rehabilitation to create stable scapular base
- Assess for and correct compensatory movement patterns
- UBE with low resistance
- Continue aerobic conditioning

Outpatient Physiotherapy Phase 4: (> Week 12)**ROM**

- Progressive return to full motion in all planes
- Emphasize posterior capsule stretching
- Maintenance home flexibility program

Strength

- Continue rotator cuff and scapular strengthening program. Progressive increase in resistance as strength improves
- Continue UBE with progressive resistance as tolerated
- Maintenance home exercise program
- Recreation/vocation specific rehabilitation
- Maintenance aerobic conditioning program