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## **Complex Meniscus Repair Protocol**

\* Radial, root, or complex repairs

### **I) Weeks 0-4:**

- Restrictions:
  - 1) Immobilizer must be on at all times when walking.
  - 2) TWB with the knee in full extension using crutches
  
- Goals:
  - 1) Active ROM: 0-90 degree maximum.
  - 2) Reduce muscle atrophy.
  - 3) Reduce swelling.
  
- Outcome measures at initial evaluation:
  - 1) LEFS: Lower extremity functional scale.
  - 2) PSFS: Patient specific functional scale.
  
- Anti-edema
  - 1) Ice/Cryotherapy multiple times during the day
  - 2) Compression with TubiGrip/TEDS
  - 3) Ankle pumps while icing.
  
- Therapy/Exercises:
  - 1) ROM (0-90 degrees maximum):
    - a. Long sitting heel slides.
    - b. Hook lying heel slides.

- c. Supine wall slides for knee flexion.
  - d. Prone knee flexion.
  - e. Supine knee extension with towel under ankle.
  - f. Prone hangs.
  - g. Towel calf stretches.
- 2) Core exercises:
- a. Crunches.
  - b. Oblique crunches.
  - c. Prone superman.
- 3) Hip and lower extremity exercises:
- a. Belt abduction isometrics.
  - b. Pillow adductor squeezes.
  - c. Advance to straight leg raises as able.
  - d. Gluteal sets.
  - e. Quad sets.
  - f. Hamstring sets.
  - g. Ankle DF and PF isometrics against crutch advancing to Theraband as comfort improves.

## II) Weeks 4 to 6:

- Progress to PWB, same as above

## III) Weeks 6 to 8:

- Restrictions:
  - 1) D/C immobilizer
  - 2) WBAT (wean crutches)
  - 3) Avoid loading past 90 degrees of flexion—educate patient on chair mechanics
- Goals:
  - 1) Reduce effusion
  - 2) Full ROM
  - 3) Minimize hip, core and lower extremity atrophy
- Therapy/Exercises:
  - 1) ROM exercises:
    - a. Continue with previous ROM exercises.
  - 2) Gait training:
    - a. Weight shifts.
      - (a) Side to side.
      - (b) Forwards and back.

- b. Gait mechanics training.
  - (a) High knees.
  - (b) Big steps.
  - (c) Side shuffle walking speed.
  
  - (d) Single leg stance.
    - (i) Advance to cushion, ½ roll, ball catches.

3) Core exercise examples:

- a. Prone plank.
- b. Side plank.
- c. Upper back six pack on ball.
- d. Supine ball rotations.
- e. Side crunch on ball.

4) Hip and lower extremity exercise examples:

- a. 90 degree flexion limit.
  - (a) Isometric leg press
  - (b) Bridging as able.
  - (c) Standing hip Theraband in all directions.
  - (d) Step up.
  - (e) Mini squat.

**IV) Weeks 8 to 16:**

- Restrictions:
  - 1) No loading at flexion angles greater than 90 degrees
  
- Goals:
  - 1) Full active range of motion
  - 2) No effusion
  - 3) Improved core and hip strength and endurance
  
- Outcome measures at final evaluation:
  - 1) LEFS: Lower extremity functional scale.
  - 2) PSFS: Patient specific functional scale.
  
- Therapy/Exercises: (No loading past 90 degrees of knee flexion). 1)  
Weight bearing exercises:
  - a. Maximize proprioceptive training:
    - (a) Cushion work.
    - (b) Bosu ball.

- (c) ½ roll.
- (d) Sport specific:
  - (i) Ball catches.
  - (ii) Ball throws.
  - (iii) Stick handling.

2) Core work examples:

- a. Upper back six pack on ball.
- b. Prone walk out on ball.
- c. Side crunch on ball.
- d. Continued plank work.
- e. Back bridge single arm dumbbell fly.
- f. Bridge.
- g. Quadruped hip extension.
- h. Quadruped bird dog.

3) Hip work/lower extremity work examples:

- a. Continued Standing hip Theraband in all planes.
- b. Seated hip IR and ER against Theraband.
- c. 85 degree knee flexion limit
  - (a) Step ups with dumbbells.
  - (b) RNT step ups.
  - (c) Mini lunge with dumbbells.
    - (i) Two dumbbells.
    - (ii) One dumbbell in either hand.
  - (d) Sumo squat with weight elevated on boxes.
  - (e) Wall squat with tubing valgus stress.
  - (f) Hockey side lunge.
  - (g) Limited range dead lift.

4) Non-impact aerobic conditioning:

- a. When walking with normal gait mechanics.
- b. Build up to 30 minutes of non-impact conditioning.
- c. Knee flexion angles do not exceed 90 degrees. (a) Elliptical trainer.
  - (b) Stairmaster.
  - (c) Standard stationary bike.

**V) 4-6 months:**

- 1) Initiation of return to sport program.
- 2) Outcome tools
  - a. LEFS: Lower Extremity Functional Scale
  - b. PSFS: Patient Specific Functional Scale