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Medial Patellofemoral Ligament Reconstruction / Repair Rehabilitation Program

Note to therapist: Individual variations will occur depending on surgical details and patients response to treatment. Avoid ROM with chondrosis or pain when performing OKC knee extension strengthening exercises. If a lateral release has also been performed, emphasis on patellar mobilizations should be on medial glides, inferior-medial glides, and medial tilts.

Phase I: 0 - 4 weeks

ROM: Week 0 - 1: None

Week 1 - 3: 0-90*

Week 3 - 4: 0-100*

Weight Bearing: *Week 0 - 2:* brace locked for ambulation (*Week 0 - 1* TTWB and *Week 1 - 2:* 25% WB)

Week 2 - 4: unlock brace for WB depending on quad control (*Week 2 - 3:* 50% WB and *Week 3 - 4:* 75% WB)

Modalities: cryotherapy (ice) 4X/day

IFC for pain / effusion

NMES quads

Treatment recommendations: Sapega-McClure technique:

1. Active warm-up: bike per ROM
2. Heat with stretch: prone hang 1st TERT (TERT = total end range time)
3. Mobilizations / ROM: patellofemoral mobilizations, avoid lateral glides. Scar tissue massage.
4. Therapeutic exercises:
 - a. flexibility exercises (hams, gastroc-soleus, hip)
 - b. biofeedback
 - c. Strengthening exercises:
 - i. Quads with adductor squeeze
 - ii. SLR M< 1
 - iii. Quads/ hamstrings per ROM

iv. SAQ per ROM if no chondrosis

Phase II: 4 - 6 weeks

ROM: Week 4 - 5: 0-110*

Week 5 - 6: 0-120* D/C brace

Weight Bearing: *Week 4 - 6:* 100% with crutches. D/C crutches depending on quadriceps control

Modalities: cryotherapy (ice)

IFC for pain / effusion

NMES quads

Treatment recommendations: Sapega-McClure technique:

1. Active warm-up: bike per ROM at 5 weeks, add resistance elliptical
2. Heat with stretch: prone hang 2nd TERT (TERT = total end range time)
3. Mobilizations / ROM: patellofemoral mobilizations, avoid lateral glides. Scar tissue massage.
4. Therapeutic exercises:
 - a. flexibility exercises (hams, gastroc-soleus, hip, quads))
 - b. biofeedback
 - c. Strengthening exercises:
 - i. Quads with adductor squeeze
 - ii. SLR M< 1
 - iii. CKC knee extension
 - iv. Minisquats
 - v. Wall slide
 - vi. SAQ/ hams in ROM without chondrosis
 - vii. Total leg strengthening hamstrings isotonic 6 weeks sub-max
 - viii. OKC
 1. quads 0-45* with gradual increasing resistance
 2. Hip 4 ways
 3. SLR
 4. Heel raises
 - ix. CKC exercises:
 1. Leg press
 2. Step-ups

3. Partial lunges
4. Squats 0-90*
- x. Balance/Proprioception
- xi. Cardio-vascular conditioning
- xii. Core stability
- xiii. Upper body exercises

Treatment recommendations (continued)

5. Ice in stretch: 2nd TERT
6. Home exercise program for 3rd TERT

Phase III: 6-12+ weeks

ROM: Week 6 - 8: Full

Weight Bearing: Full with no limitations

Modalities: cryotherapy

NMES quads

Treatment recommendations:

1. Sapega-McClure technique as needed (see previous)
2. Bike
3. Elliptical runner
4. Stairmaster
5. Flexibility exercises
6. Biofeedback
7. Total leg strengthening
8. Hip strengthening
9. Heel raises
10. Hamstrings isotonic
11. Quads isotonic 0 - 45* 6 weeks
12. Quads isotonic 0 - 90* 8 weeks
13. Isokinetic quad/hams in ROM without chondrosis
14. CKC exercises:
 - a. Leg press
 - b. Step-ups

c. Lunges

d. Squats

15. Balance/proprioception

16. Cardio-vascular conditioning

17. Core stability

18. At 12 weeks add impact activities if strength is 75% and above

Testing: 12 weeks Linea

16 weeks Linea

18-24 weeks Biodex Linea

Biodex

Function tests

Return to work/sports:

1. No pain or effusion

2. Full ROM

3. Isokinetic strength 90%

4. Functional tests 90%

5. MD approved return to sports at 4-6 months