MPFL Reconstruction

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Phase I - Immediate Post Op (Day 1-14)

Goals

- Diminish swelling/inflammation
- Diminish post-operative pain
- · Initiate voluntary quadriceps control
- Independent Ambulation

Brace

Locked in full extension for ambulation (4 weeks) and sleeping (for 2 weeks)

Weight Bearing

• 50% for 2 weeks (ie using two crutches to assist with walking)

Swelling/Inflammation Control

- Cryotherapy: at least 5 times per day for 15 mins
- Compression Bandage
- Elevation & Ankle Pumps

Range of Motion

- Full passive knee extension
- Flexion to 30 degrees (Day 1 to 5)
- Flexion to 45 degrees (Day 6-7)
- Flexion to 60 (Day 8-14)
- PROM and gentle AAROM only

Muscle Retraining:

- Quadriceps isometrics
- Straight Leg Raises
- Hip Adduction
- Electrical muscle Stim to Quads
- No Active Knee Extension

Flexibility

- Hamstring and Calf Stretches
- PROM/AAROM within ROM limitations

Phase II - Acute Phase (Wks 2-4)

Goals

- Control swelling and pain
- Promote healing of soft tissue
- Promote medial displacement of patella (hip control & foot control)
- · Quadriceps strengthening

Brace

· Continue brace for ambulation only for 4 weeks

Weight Bearing

- Slowly progress to WBAT
- Begin with one crutch in contralateral arm of operative knee then progress to no crutches

Swelling/Inflammation

- Cryotherapy: at least 5 times per day for 15 mins
- Elevation

Range of Motion

- PROM/AAROM exercises
- · Patella mobilization medial, superior, & inferior
- ROM 0-75 (Week 2-3)
- ROM 0-90 (Week 3-4)

Muscle Retraining:

- Electrical muscle stimulation to guads
- · Quadriceps isometrics
- Straight Leg Raises
- Hip Adduction/Abduction
- Hip Extension
- Gentle submaximal isometric knee extension
- Leg Press (Week 4)
- Vertical Squats Body Weight (Week 4)

Flexibility

- Hamstring and Calf Stretches
- PROM/AAROM within ROM limitations

Phase III - Subacute Phase (Wks 5-8)

Goals

- Gradual improvement in ROM
- Improve muscular strength and endurance
- Control Forces on extension mechanism

Weight Bearing

• WBAT with no crutches

Range of Motion

- Patella mobilization medial, superior, & inferior
- ROM 0-105 (Week 5-6)
- ROM 0-115 (Week 6-7)
- ROM 0-135 (Week 7-8)

Exercises:

- Electrical muscle stimulation to quads
- Quadriceps isometrics
- Straight Leg Raises
- Hip Adduction/Abduction, Extension
- Knee extension Light (0-60)
- Leg Press
- · Vertical Squats Body Weight
- Bicycle
- Pool Program if possible

Flexibility

- Hamstring and Calf Stretches
- PROM/AAROM within ROM limitations

Phase IV –Strengthening Phase (Wks 9-16)

Goals

- Gradual Improvement of muscular strength
- Functional Activities/drills

Criteria to Progress to Phase IV:

- ROM to at least 0-115
- No swelling/inflammation
- · Voluntary control of quads

Exercises

- Vertical Squats (0-60)
- Wall Squats (0-60)
- Leg Press
- Forward Lunges
- Lateral Lunges
- Lateral Step-ups
- Knee Extension (60-0)
- Hip Adduction/Abduction
- Bicycle
- Stairmaster

Phase V - Return to full activity (Wks 17+)

Goals

• Functional return to specific drills

Criteria to Progress to Phase IV:

- Full non-painful ROM
- Appropriate strength level (90% or greater of contralateral leg)
- Satisfactory clinical exam

Exercises

- Functional drills
- Strengthening Exercises
- · Gradual return to all activities