OrthoIllinois REHABILITATION

Patellar Tendon Realignment

Proximal and/or Distal

Precautions:

- For 6 weeks, NO closed-kinetic chain exercises
- Protocol is the same for proximal and distal, EXCEPT WB and other limitations as noted below
- Use distal protocol after a combined proximal and distal realignment

Phase I (1 – 5 days post-op)

- Wound care: Observe for signs of infection
- Modalities: prn for pain and inflammation (ice, IFC)
- Brace:
    - Locked in full extension for all activities except therapeutic exercises and CPM use
    - Locked in full extension for sleeping
    - May unlock brace when sitting
- Gait:
    - Proximal realignment
        - WBAT with 2 crutches
    - Distal realignment
        - 50% WB with 2 crutches
- ROM:
    - Knee: 0-45 degrees
    - Ankle AROM

Phase II (5 days – 4 weeks post-op)

- Wound care: Monitor for signs of infection and initiate scar management techniques when incision is closed
- Modalities: prn for pain and inflammation (ice, IFC)
- Brace:
    - Weeks 0-4: Locked in full extension for all activities except therapeutic exercises and CPM use
    - Locked in full extension for sleeping

Initiation Date: 01-01-05 Revised Date: 6-14-14, 4-9-2020

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- Gait:
    - Proximal realignment
        - WBAT with 2 crutches
    - Distal realignment
        - 50% WB with 2 crutches
- ROM:
    - Proximal realignment
        - Week 1-3: 0-75 degrees
        - Week 4: 0-90 degrees
    - Distal realignment
        - Day 5: 0-60 degrees
        - Week 1-3: 0-75 degrees
        - Week 4: 0-90 degrees
- Strengthening:
    - Quad sets for isometric adduction with biofeedback and e-stim for VMO
        - No e-stim for 6 weeks for proximal realignment
        - By end of 6 weeks, goal of regaining active quad and VMO control
    - Heel slides, per ROM guidelines above
    - CPM for 2 hours, 2x/day, per ROM guidelines above
    - NWB gastroc, soleus, and hamstring stretches
    - 4 way SLR (lying down and standing) with brace locked in full extension
    - Resisted ankle ROM with theraband
    - Patellar mobilization, as tolerated
    - At 3-4 weeks, begin aquatic therapy, with emphasis on gait

Phase III (4 weeks – 10 weeks)

- Wound care: Observe for signs of infection, continue scar mobs
- Modalities: Continue prn for pain and inflammation (ice, IFC)
- Gait:
    - 4-6 weeks:
        - Proximal realignment
            - WBAT with 2 crutches
        - Distal realignment
            - 50% WB with 2 crutches
    - 6-8 weeks: WBAT with crutches
    - 8-10 weeks: D/C crutches if no extension lag is present, patient is able to achieve full extension, and gait pattern is normalized with 1 crutch

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- ROM:
    - Week 5: 0-115 degrees
    - Week 6: 0-125 degrees
    - Week 8: 0-125/135 degrees
- Strengthening:
    - 4-6 weeks: Continue as in phase II
    - 6-8 weeks:
        - May begin NMES for proximal realignment
        - Continue exercises progressing to full flexion with heel slides
        - Progress to WB gastroc and soleus stretching
        - D/C CPM if achieved 90 degrees of flexion
        - Continue aquatic therapy
        - Closed-chain balance exercises
        - Stationary bike - low resistance, high seat
        - Wall slides progressing wit mini squats: 0-45 degrees of flexion
        - Step-ups with godo quad control and no pain (starting with 2” step)
    - 8-10 weeks:
        - Should be able to demonstrate SLR without extensor lag
        - Moderate resistance for stationary bike
        - 4-way resisted hip strengthening
        - Leg press 0-45 degrees
        - Swimming and/or stairmaster for endurance
        - Toe raíces, hamstring curls, and proprioceptive exercises
        - Treadmill walking
        - Flexibility exercises continued

Phase IV (10+ weeks post-op)

- Criteria:
    - Clearance from physician to begin more concentrated closed-kinetic chain exercises and resume full or partial activity level
    - At least 0-115 degrees AROM with no swelling and must have complete voluntary contraction of quad
    - No evidence of patellar instability
    - No soft tissue complaints
- Strengthening:

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- Progression of closed-kinetic chain activities including partial squats (60 degrees), leg press, forward and lateral lunges, lateral step-ups, leg extensions (60-0 degrees), bicycle, and/or stepper
    - Functional progression, sport-specific activities
- Testing:
    - Performance to < 25% deficit compared to non-surgical side by D/C

Adapted From:

1) Brotzman SB, Wilk KE. Clinical Orthopedic Rehabilitation. 2nd Ed. Philadelphia: Mosby; 2003.
2) Wilk KE, Advanced Continuing Education Institute, 2004 and 2019.

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