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Rehabilitation after Proximal Hamstring Repair

DISCLAIMER: The following Physical Therapy protocol is intended to be utilized by the clinician as a guideline in the treatment of this disorder. It is based on current research and has been formulated as a collaborative effort between Physicians and Physical Therapists. It is not intended to serve as a substitute for sound clinical decision making. Every patient is a unique case, and it should be anticipated that not all patients will fit into the timelines set forth in this protocol. If the Physical Therapist has any questions regarding the course of treatment, the referring physician should be contacted for further guidance.

Phase I: Post op Day 1 -Week 6

Goals:

- Pain control
- Protection of tendon

Contraindications: Avoid hip flexion with knee extension and unsafe ambulation

Weight Bearing:

- Weeks 0-2 TTWB
- Weeks 3-4 WB 15-40%
- Weeks 5-6 WBAT
- Week 6 FWB without crutches

Bracing/ Assistive Devices:

- Bilateral axillary crutches
- Bledsoe brace locked in 30 degrees flexion while ambulating
 - Walking instructions: Place the crutches one step length ahead of you, then step forward with your operated leg to meet the crutches, lean on that foot as tolerated, and then unloading onto the crutches as needed, bring the uninvolved limb forward and a step ahead of the operated leg.

Exercises:

- Quad sets
- Ankle pumps

Revised 2020

- Core isometrics
- Knee PROM
- Pool walking after week 4 to accommodate incision healing
- UBE

Manual Therapy:

Scar mobilizations

Modalities:

• Cryotherapy for edema control and pain management

Frequency of PT: Initiate Day 3, 1x /week

Phase II: Week 6 - Week 12

Goals:

- Cannot progress to Phase II without satisfying Phase I
- Normalize gait
- Pain free function
- Step up/down
- Squat
- 5/5 Hamstring MMT measured in prone knee flexion at 90 deg

Contraindications: Avoid dynamic stretch, impact, running, load with deep hip flexion

Bracing/Assistive Devices:

- Brace remains locked in full extension
- Wean off ACs
- WBAT>FWB

Exercises:

- Balance/proprioception
- Stationary bike
- Light hamstring stretching
- Isometric hamstring sets
- Concentric hamstring sets
- Heel slides
- Bridging
- Physioball curls
- Hip strengthening
- Core stabilization exercises
- •UBE

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Manual Therapy:

• PROM to 90 deg flexion

Modalities:

- Cryotherapy for edema and pain management
- TENs for edema and pain control
- NMES for VMO activation

Frequency of PT: 1-2x/week

Phase III Weeks 12 - 16

Goals:

- Walk without deviations
- Regain ROM
- Continue strengthening

Contraindications: Overload, running, painful movement

Exercises:

- Progress to full AROM
- Gentle hamstring stretch
- Cautious use of weight machines
- Single leg closed chain exercises

Frequency of PT: 1-2x week

Phase IV Week 16

Goals:

- Progress quadriceps strength
- Normal ROM
- Normal Activities

Contraindications: Excessive quad stretching, avoid pain at tendon repair site, leg extension machine, lunges, stair master, step exercises with impact, running activity that produces an ache the following day, jumping, pivoting, cutting

Bracing/Assistive Devices:

• All DC, may wear elastic sleeve for support

Function:

• Walking without aide, without limp, with confidence.

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• Initiate walking up stairs, do not go down stairs with operated limb yet.

Exercises:

- Continue with HEP and ankle weight progression for next 6 months (1lb per week)
- Walk:Jog progression 5:1 only if pain free
- Week 20 Initiate sprinting drills
- Week 24 Initiate jumping drills/plyometrics

Frequency of PT: DC PT week 16 if not returning to sport

Patient Education: Work with trainer to prepare for return to competition

References of adaptation:

Proximal Hamstring Tendon Repair. Massachusetts General Hospital Orthopaedics. Boston, MA: Accessed January 2020; 1-7.

Rehabilitation Guidelines following Proximal Hamstring Primary Repair. University of Wisconsin Sports Medicine. Madison, WI; Accessed January 2020; 1-6.