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OSTEOCHONDRAL AUTOGRAFT TRANSPLANTATION (OATS) PROCEDURE

PHYSICAL THERAPY PROTOCOL

Patient Name:

Date:

Post Operative - Weeks 1-6

PWB with Brace Locked in Extension for the first 2 weeks and ambulating with crutches at all times. Please unlock the brace at week 2 to full ROM. Transition from PWB to Full Weight Bearing from week 4 to 6. Full Weight Bearing after week 6.

ROM as tolerated when out of brace for CPM machine or for Passive ROM with therapist.
CPM starting Post Operative Day #4 from 0-90 and advance as tolerated. 2-3X / Day for 2-3 hrs per session. (6 weeks)

Goals: Week 1-2: 0-90 degrees, Weeks 3-4: 0-110 degrees, and Weeks 5-6 degrees: 0-125.
** Please take your brace off for CPM sessions **

When ambulating, it is very important that you wear your brace at all times, locked in extension for the first 2 weeks after surgery. Please see the above instructions regarding brace use.

Please do ankle pumps daily for the first 2 weeks after surgery to prevent DVT (deep vein thrombosis)
Please follow the general postoperative instruction for lower extremity and knee surgery.

Start Formal PT around 2 to 3 weeks post op after you see Dr. Li's physician assistant on your first post operative visit.

Weeks 6-14

Supervised PT – 3 times a week

GOALS

- Restore full ROM
- Restore normal gait
- Demonstrate ability to ascend and descend 8-inch stairs with good leg control without pain

- Improve ADL endurance
- Independence in HEP

PRECAUTIONS

- Avoid descending stairs reciprocally until adequate quad control and lower extremity alignment
- Avoid pain with therapeutic exercise and functional activities
- Avoid running and sport activity

TREATMENT STRATEGIES

- Progressive WBAT with brace for 2 weeks and then transition to out of brace for ambulation at 8 wks postop) as quad control allows (good quad set/ability to SLR without pain or lag).
- Aquatic therapy if available – pool ambulation or underwater treadmill
- D/C crutches or cane when gait is non-antalgic
- AAROM exercises
- Patellar mobilization
- SLR's in all planes with weights
- Proximal PREs
- Neuromuscular training (bilateral to unilateral support)
- Balance apparatus, foam surface, perturbations
- Short crank stationary bike
- Standard stationary bike (when knee ROM >115)
- Leg press – bilateral/eccentric/unilateral progression (start at week 12)
- Squat program (PRE) 0-60deg (start at week 12)
- **NO** Open chain quad exercise
- Initiate step-up and step-down programs
- StairMaster
- Retrograde treadmill ambulation
- Quad stretching
- Elliptical machine (start at week 13)
- Forward Step-Down Test
- Upper extremity cardiovascular exercises as tolerated
- Cryotherapy
- Emphasize patient compliance to HEP

CRITERIA FOR ADVANCEMENT

- ROM to WNL
- Ability to descend 8-inch stairs with good leg control w/o pain
- Add water exercises if desired (and all incisions are closed and sutures out)

Weeks 14-22

GOALS

- Demonstrate ability to run pain-free
- Maximize strength and flexibility as to meet demands of ADL
- Hop test $\geq 85\%$ limb symmetry
- Isokinetic test $>85\%$ limb symmetry
- Lack of apprehension with sport-specific movements

- Flexibility to accepted levels of sport performance
- Independence with gym program for maintenance and progression of therapeutic exercise program at discharge

PRECAUTIONS

- Avoid pain with therapeutic exercise and functional activities
- Avoid sport activity until adequate strength development

TREATMENT STRATEGIES

- Progress squat program <90-degree flexion
- Lunges
- Start forward running (treadmill) program at 4 months postop if 8-inch step down satisfactory
- Cont LE strengthening and flexibility programs
- Agility program/sport specific (sports cord)
- Start plyometric program when strength base is sufficient
- Isotonic knee flexion/extension (pain and crepitus-free arc)
- Isokinetic training (fast to moderate to slow velocities)
- Functional testing (hop test)
- Isokinetic testing
- HEP

CRITERIA FOR DISCHARGE

- Symptom-free running and sport-specific agility
- Hop test >85% limb symmetry
- Isokinetic test >85% limb symmetry
- Lack of apprehension with sport specific movements
- Flexibility to acceptable levels of sport performance
- Independence with gym program for maintenance and progression of therapeutic exercise program at discharge

This is strictly an outline of most of the major exercises that we would like to incorporate into the post operative rehabilitation program. Not all exercises need to be done. Two main goals are that appropriate progress is made on a weekly basis, and that communication exists between patient, therapist and doctor.

* Please send progress notes *

Signature: _____

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