O·S·M·S
ORTHOPEDIC & SPORTS MEDICINE SPECIALISTS

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Physical Therapy Protocol: Early WB Achilles Repair

Philosophy:
The Achilles tendon plays a critical role in walking, stair climbing, and return to previous sports. The tendon unit is susceptible to injury because it is a long tendon that crosses two joints in the human body. Spontaneous ruptures usually occur during athletic activities in middle-aged patients and are diagnosed via physical exam with your OSMS surgeon and advanced imaging. The repair can be difficult to accomplish surgically, and a commitment to early-weight bearing is desirable for the best outcome. It can take up to a year to make full recovery and it is not unusual to have intermittent pains and aches during that time.

Phase I, surgery to 2 weeks

OSMS appointments:
Medical appointments at 2 weeks
Films are sometimes taken to assess implanted hardware (technique variable)
Physical therapy appointments begin at 2 weeks, and continue once or twice weekly

Rehabilitation Goals:
Protection of the repaired tendon
Recovery from surgery
Reduce pain and swelling
Gradually return to activities of daily living

Precautions:
Non-weight bearing in short leg cast or plantarflexed boot (OK to put foot down when standing)
Rest and elevation between ADLs

Range-of-Motion Exercises:
Hip and knee AROM

Suggested Therapeutic Exercises:
Gait training with bilateral axillary crutches or Roll-About

Progression Criteria:
Patient may progress to phase II after 2 weeks if they have healed incision

Phase II, (after Phase I criteria met, usually at 2-6 weeks)

OSMS appointments:

Physical therapy appointments continue at once or twice weekly

Rehabilitation Goals:

Maintain hip and knee ROM

Improve core, hip, and knee strength

Precautions:

Required use of the walker boot while sleeping

It is ok to remove the boot for personal care, but patients are required to adhere to the weight-bearing restrictions

Protected WB, walker boot in PF position with crutches (2-cm heel lift)

At 4 weeks, advance to full WB in walker boot

Range-of-Motion Exercises:

Toe flexion/extension

Suggested Therapeutic Exercises:

Light massage of foot to decrease edema (start from toes and work towards ankle)

Core strengthening (abdominal recruitment, bridging on ball, ball reach, arm pulleys, resisted diagonal TheraBand's)

Hip & knee strength (clamshells, hip abduction, prone hip extension, SLR, TheraBand press)

Glute stretching (medius, minimus, piriformis, hamstring, rectus femoris)

Cardiovascular Exercises:

Upper body circuit training or upper body ergometer

Progression Criteria:

Patient may progress to phase III after 6 weeks

Phase III, (after 6-8 weeks)

OSMS appointments:

Medical appointment at 6 weeks

Physical therapy appointments fade to every 10-14 days until cleared

Multiplane limb control

Precautions:

WBAT in walker boot is allowed

Required use of the walker boot while sleeping

It is ok to remove the boot for personal care, but patients are required to adhere to the weight-bearing restrictions

Suggested Therapeutic Exercises:

Progress with closed chain exercise

Lunges from 0-90, leg presses 0-90

Proprioceptive exercises

Begin stationary bike
Hip and core strengthening
Physical therapist may begin scar mobilization using friction, ultrasound or stretching if appropriate (Heat may be applied before beginning)

Progression Criteria:

After 8 weeks, begin to wean from boot

Phase IV, (after Phase III criteria met, usually after 8+ weeks)

Rehabilitation Goals:

Good eccentric and concentric neuromuscular control
Multiplane limb control

Precautions:

Wean from walker boot
Consider return to crutches and/or cane as necessary and gradually wean off

Suggested Therapeutic Exercises:

Progress with closed chain exercise
Proprioceptive exercises
Stationary bike and StairMaster
Hip and core strengthening
Physical therapist may begin scar mobilization using friction, ultrasound or stretching if appropriate (Heat may be applied before beginning)

Progression Criteria:

After 12 weeks, ok to begin jogging and progress to running
After 12 weeks, ok to begin sport specific retraining
Return to sport is MD directed, generally >16 weeks

References:

- Baer GS, Keene JS. Tendon Injuries of the Foot and Ankle: Achilles Tendon Ruptures. *Orthopedic Sports Medicine: Principles and Practice.* (Third Edition).
- Willits, et al. Operative versus Nonoperative Treatment of Acute Achilles Tendon Ruptures, *The Journal of Bone & Joint Surgery*: December 1, 2010 - Volume 92 - Issue 17 - p 2767-2775