The Children's Hospital

CGMA

Center for Gait and Movement Analysis

PT22: Intramuscular rectus femoris lengthening

Indications: Rectus femoris contracture with positive Thomas and Ely test. During walking, increased hip flexion with anterior pelvic tilt

Procedure: Rectus femoris tendon is lengthened or released at the anterior inferior iliac spine

Casting: No cast, weight bearing as tolerated. Patient should spend the majority of time in prone to stretch the hip flexors for the first 3 weeks post-op to minimize tissue shortening and increased hip flexion
-Weight bearing is allowed as tolerated

Healing Time: Approximately 3 weeks

Precautions:

-Do not allow the patient to spend many hours is a seated position. This will encourage tissue shortening and scarring in this flexed position
-Make special arrangements for the patient to spend the majority of time in prone while at school
-Do not allow pillows under the torso/ hips when in prone. This allows hip flexion and tissue shortening/ scarring to occur
-Anticipate post-op discomfort and pain, a full body cast would minimize this but it is cumbersome and not necessary unless the pain is intolerable.

Contraindications:

-Avoid active, forceful hip flexion for the first 3 weeks post-op
-Avoid impact activities for the first 3 weeks post-op

Phase 1: Post-op day 1-7

Goals: -protect the surgical site including the incision and underlying surgical tissues
-encourage prone lying for the majority of the 24 hour day
-gentle PROM, AAROM of the involved hip, knee, ankle in all planes of motion
-isometric contraction of the glut max, quads, hamstrings

Criteria to Progress:
-safe mobility for ADL completion
-able to demonstrate understanding of home exercises and precautions
-home exercises to include prone lying, isometric contraction of the gluts

Phase 2: Post-op day 8-21

Goals: -improve abdominal strength to reduce anterior pelvic tilt, avoid substitution by the hip flexors, do not secure/ stabilize the legs when working on abdominal strengthening
-passive, active assistive motion to 10° of hip extension
-begin gait training with emphasis on **quality** of gait pattern, OK to try slow treadmill walking

Criteria to Progress:
-uneventful healing of surgical tissues

Phase 3: Post-op 22 to completion of PT care

Goals: -surgical incision scar mobility once good wound closure has occurred (Approx. 4-6 weeks)
-improve hip extensor strength with exercises such as bridging, step ups, stair climbing, therapy ball ex's, etc.
-improve abdominal strength, avoid overuse/ substitution of the hip flexors

-attain a trailing limb posture at terminal stance and improve knee extension at terminal swing and initial contact when walking
-decrease anterior pelvic tilt in both standing and walking
-anticipate return to full pre-op activity level at ~ 3 months post-op
-independent management with home exercises

When multiple procedures are performed at the same surgical event, the post-op physical therapy care needs to default to the most conservative time frames and guidelines.

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