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Flexor Pollicis Longus Repair Early Passive Motion Program [Duran Program] Mordick C Rubber Band

Postoperative Rehabilitation

3 Days Postop

The bulky compressive is removed. Edema control is initiated with a light compressive dressing to the hand and forearm, along with digital level fingersocks or Coban™.

A dorsal blocking splint (DBS) is fitted to wear at all times. The wrist and hand are positioned as follows:

- Wrist: 20 degrees palmar flexion
- Thumb: 15 degrees of MP joint flexion and 30 degrees of IP joint flexion
- Thumb CMC: Palmar abduction

Note: It is important to position the IP joint in 30 degrees of flexion to ensure FPL excursion proximal to the pulley.

A PROM exercise program (Modified Duran Program) is initiated within the restraints of the dorsal blocking splint. The following exercises are performed 25 repetitions each 2 hours throughout the day:

- Independent passive flexion and extension to the MP joint
- Independent passive flexion and extension to the IP joint
- Composite passive flexion and extension to the MP and IP joints

10-14 Days Postop

Within 48 hours following suture removal, scar mobilization techniques may be initiated.

4 Weeks Postop

The dorsal blocking splint is continued at all times.

The Modified Duran PROM exercise program is continued.

AROM exercises are initiated within the restraints of the splint. The active exercises are performed 6-8 times a day, 25 repetitions.

NMES may be initiated within 2-3 days following the initiation of AROM. The goal of the NMES is to enhance and facilitate FPL excursion.

Ultrasound may be initiated, particularly with those patients with dense, adherent scars.

5 Weeks Postop

The PROM exercises are continued within the restraints of the dorsal blocking splint.

Flexor Pollicis Longus Repair [continued]

The patient removes the splint to begin unrestricted AROM exercises to the thumb and wrist.

5 ½ Weeks Postop

The dorsal blocking splint is continued in the position of full active extension for sleep, activity and travel.

Emphasis is placed on unrestricted active and passive flexion to the thumb, active extension and blocking exercises to the IP joint of the thumb.

6 Weeks Postop

Patient reminded not to use thumb for activity.

The wrist and thumb static splint is adjusted into increased passive extension. If extrinsic flexor tightness is not present, the splint may be reduced to a hand-based splint to increase passive IP joint extension. In adjusting and/or fabricating any thumb extension splint, it is important to ensure the MP joint does not hyperextend while attempting to increase passive IP extension.

A dynamic IP joint extension splint may be initiated as needed. Note: On occasion, this has been necessary with lacerations to the FPL, particularly with lacerations near the IP joint of the thumb.

8 Weeks Postop

Blocking splint is removed.

Progressive strengthening may be initiated with putty and a hand exerciser.

Patient education is important. The patient must avoid heavy lifting or using the hand with a tight, sustained pinch.

12 Weeks Postop

The patient may return to unrestricted use of hand in all activities.

Considerations

Dynamic splinting in flexion may be added within the restraints of the dorsal blocking splint should passive flexion be limited. This may be initiated at any time during the course of therapy.

If a digital nerve has been repaired in conjunction with the FPL repair, the dorsal blocking splint may be adjusted into increased flexion if necessary. Typically, with both the MP and IP joints in slight flexion, it is not necessary to increase the flexion any further.

AROM will begin to plateau during the initial 7-8 weeks postop. It is critical to emphasize the importance of active participation in the therapy program during the initial 3-6 weeks following surgery.

Watch for the development of an IP joint flexion contracture with lacerations at the IP joint. Therapy should be fairly aggressive to resolve the contracture.

With the initial splint application, be sure the IP joint of the thumb is flexed 30 degrees, otherwise, it may be difficult obtaining FPL excursion once AROM is initiated.