

LATERAL RETINACULAR RELEASE

Definition :-

A lateral retinacular release is a surgical procedure for the knee and is used to realign the kneecap (patella). It is performed as an arthroscopic surgery through several lateral parapatellar portals.

The procedure releases the lateral structures supporting the patellofemoral joints, specially the superficial and deep portions of the lateral retinaculum, lateral patellofemoral and patellotibial ligaments.

Parapatellar Portals :-

1. Lateral Portal (Visualizing Port)
2. Superolateral Port (Drainage Port)
3. Medial Port (Operating Port)
4. Superolateral Port (Patellar Tracking Port)
5. Inferolateral Port (Lateral Release Port)
6. Midpatellar Port

1. Lateral Port (Visualizing Port)

It is 0.5 cm inferior and 0.5 cm lateral to the inferior pole of patella. This port is slightly higher in the center of the soft spot.

- (W) Page _____
2. **Supero-lateral Port (Drainage Port)**
This is placed 2.5 cm lateral and 2.5 cm superior to the superior pole of patella.
 3. **Medial Port**
This port is generally the operating port.
 4. **Supero-lateral Port (Patellar Tracking Port)**
Enlarging the drainage port can serve as a patellar tracking port.
 5. **Infero-lateral Port (Lateral Release Port)**
This port is 2.5 cm inferior to the inferior pole of the patella and 2 cm lateral to the patellar tendon.
This port is used to introduce the cutting diathermy to the lateral retinacular release.
 6. **Midpatellar Port**
This portal is very useful in grasping the dislocated bucket handle portion of the medial meniscus.

INDICATION :-

- The indication for lateral retinacular release is excessive lateral pressure syndrome [ELPS] in a patient who

have failed nonoperative treatment such as -

- Physical Therapy
- Bracing
- icing
- Painful medications
- Activity modifications

- Patient with ELPS have lateral patello femoral knee pain.

→ In the painful knee there is a tendency for the patella to tilt towards the outside of the knee.

→ This occurs because of the chronic pull of the knee cap to the outside by thigh muscles, creating a strain on the retinaculum.

→ over time if the strain is great enough, the medial tissues resisting the lateral pull of the muscle becomes painful.

- This causes excessive compression between the lateral patellar facet and femoral condyles.



Date _____
Page _____

- Clinical signs of ELPS include later patellar tilt and lateral retinacular tightness without patellar instability.
- Pain from ELPS is typically exacerbated by prolonged standing or sitting with the knee in flexed position and descending stairs.
- Lateral patellofemoral arthritis

PROCEDURE

- This is an arthroscopic surgery, a knee "scope" which is performed through 3 small incisions about 1/2 inch each.
- The lateral retinaculum is incised which is pulling the patella out of position, allowing the knee cap to untilt and sit properly within the groove.
- A knee brace is applied at 30° of knee flexion
- Partial weightbearing with crutches is recommended to minimize pain



and swelling.

- Typically it takes 3 months for the improvement and approx. 1 year for complete recovery.

EXAMINATION / IMAGING

- In addition to the standard knee examination, the following test should be performed to confirm the diagnosis for surgical procedure.

(i) → The patellar Tilt test : knee is extended and quadriceps are relaxed. Anterior force is placed on the lateral facet. If this cannot be brought to neutral then retinaculum is abnormally tight.

(ii) → The patellar glide test : knee is extended ~~and~~ and the quadriceps are relaxed. The patella is manually displaced medially and laterally. If the patella moves more than 25% of the patellar width then the retinaculum is tight.



POST OPERATIVE MANAGEMENT

Phase I → Maximum Protection (0-2 weeks)

- Ice and modalities to reduce pain and inflammation.
- Use crutch for 5-7 days to reduce swelling.
- Elevate the knee above the heart line for 3-5 days.
- Patella mobility exercise
- Active and passive knee range of motion
- Quadriceps strengthening.

Phase II → Progressive and carry stretching (2 weeks - 6 weeks)

- Patella mobility exercise
- Modalities to control inflammation
- calf raising exercise
- Balance training exercise
- IT band stretching and hip flexors stretching
- GAIT training.

Phase III → Advance strengthening and Proprioception Phase (6-10 weeks)

- Modalities as needed.
- Cardiovascular exercises except running
- Quadriceps stretching ~~with~~ when full knee flexion has achieved.
- Hip abductors strengthening
- Hamstring strengthening



Date _____

Page _____

Phase IV → Return to full activity (10-14 weeks)

- Quadriceps strengthening
- CRIT training
- advanced closed-chain exercise
- aerobic conditioning program: cycling
swimming
walking
- agility drills
- Task specific training. Stimulated functional tasks based on signs and symptoms

COMPLICATIONS

- Hemarthrosis
- Medial Patellar Subluxation
- Complex regional pain syndrome
- Weakening of the knee extensor mechanism
- Skin burn
- avascular Necrosis
- Reflex Sympathetic Dystrophy
- DVT
- arthrofibrosis