Conservative Treatment for Patella-Femoral Pain

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Patella-Femoral Pain

 Treating patients with anterior knee pain can be frustrating for both the orthopaedic surgeon and the physical therapist



Patella-Femoral Treatment

- 70-90% of patients with anterior knee pain have recurrent or chronic pain
- 40% of patients have an unfavorable recovery at 12 months of the initial diagnosis

Patella-Femoral Treatment

 Because of the complex multifactorial etiology of anterior knee pain with local, proximal, and distal factors potentially involved, its treatment is particularly difficult and challenging for the provider.

Patella-Femoral Classifications

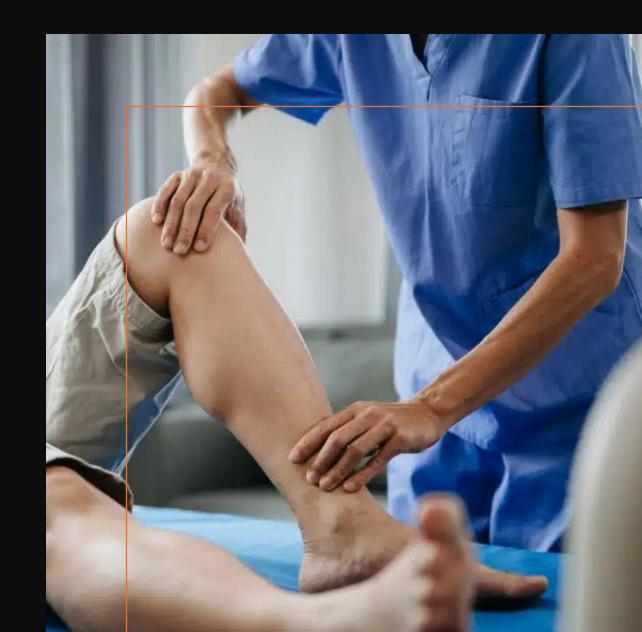
- Patella compression syndromes
- Patella instability
- Biomechanical dysfunctions
- Direct patellar trauma
- Soft tissue lesions
- Overuse syndromes
- Osteochondritis diseases
- Neurological disorders

Patella Femoral Rehabilitation



Treat the cause

 The key to treating patients with Patella-Femoral pain is to treat the CAUSE and not just the SYMPTOMS.



Patella-Femoral Treatment

- There is no evidence that a single treatment modality works for all patient with patella-femoral pain.
- There is limited evidence that some treatment modalities may be beneficial for some subgroups of patient with patella-femoral pain



Isokinetic Testing of these muscles will reveal their weakness

- Hip Abduction
- Hip Adduction
- Hip Flexion
- Knee Extension
- Knee Flexion
- Ankle Plantar Flexion
- Ankle Dorsiflexion

Patella-Femoral Treatment

- Patients who experienced more pain, better function, greater lateral core endurance, and less anterior core endurance more likely to have a successful outcome after hip and core strengthening
 - (88% sensitivity and 54% specificity)

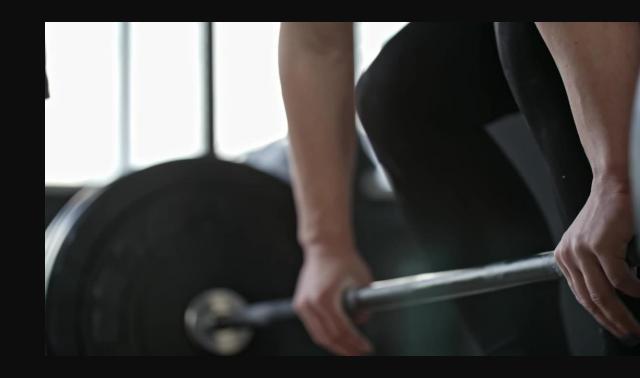
Patella-Femoral Treatment

- Patients with lower weight, weaker hip internal rotation, stronger hip extension, and greater trunk extension endurance were more likely to have success after knee strengthening
 - (82% sensitivity and 58% specificity)



Principles of PF Rehabilitation

- Reduce swelling
- Reduce pain
- Restore volitional muscle control
- Emphasize the Quadriceps



Principles of PF Rehabilitation

- Control the knee through the hip
- Enhance Soft Tissue Flexibility
- Improve Soft Tissue Mobility
- Enhance Proprioception and Neuromuscular control
- Normalize gait

Patella-Femoral Rehabilitation

• Exercise therapy is recommended to reduce pain in the short, medium, and long term and improve function in the medium and long term.



Patella-Femoral Rehabilitation

 Combining hip, core, and knee exercises to reduce pain and improve function in the short, medium, and long term is suggested instead of just knee exercises alone.



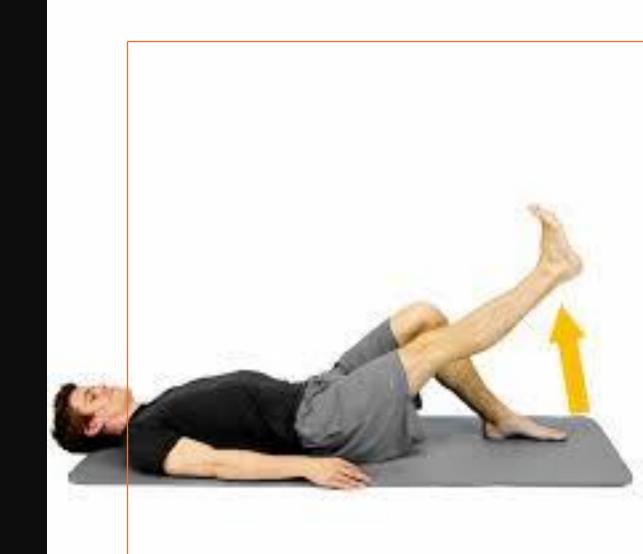
Patella-Femoral Rehabilitation

- Combined interventions are recommended to reduce pain in adults in the short and medium term
 - Foot orthoses
 - patella taping
 - Improve position of the patella
 - manual therapy



How do we treat Patella-Femoral Pain

- Some patients may require for you to start with the basics
 - Quad sets
 - Straight leg raise
 - Side lying hip abduction
 - ROM



How do we treat Patella-Femoral Pain

- Clamshells
- Wall squats (with band)
- Single leg Romanian Deadlift
- Step downs
- Lunges
- 3-way hip with flexion, abduction, and extension (with or without band)
- Bridging (various ways)



How do we treat Patella-Femoral Pain

- Progress to more dynamic exercise as patient symptoms improve
 - Mini squats on a Bosu (balance) ball
 - Bridging on a physioball
 - Lateral and Monster walks
 - Single leg hopping
 - Perturbations with a band



Other Considerations

- Core Stability
- Balance/Proprioception
- Eccentric quadriceps weakness
- Blood Flow Restriction
- Previous level of function

Exercise Dosing for PatellaFemoral Pain

- Various exercises
 - Open chain and Closed Chain
- Duration
 - 3-16 weeks depending on the patient

Conclusion

- There is no one specific way to treat Patella-Femoral Pain
- Exercise Therapy remains the intervention of choice to treat Patella-Femoral pain
- It's Complicated!

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