PRO·MOTION PHYSICAL THERAPY

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Case Studies

Patient Profile

Patient:
A 54-year-old male safety consultant

Mechanism of injury:
The patient sustained a knee injury at the age of 17 and has periodically experienced varying levels of pain for 37 years.

Symptoms:
He began to experience intermittent medial left knee pain about 4 months prior to seeking treatment. The pain worsened when he climbed up or down stairs and by twisting when weight bearing.

Additional background:
The patient had not tried physical therapy in the past. Instead, he has relied on anti-inflammatory medication. Before being referred to Pro-Motion Physical Therapy, he had consulted with an orthopedic surgeon. At that time, an MRI showed left knee chondromalacia patella, lateral tracking of the patella and a tear in the posterior medial meniscus.

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Evidence-based treatment relies on a comprehensive evaluation to identify specific problems and make an accurate diagnosis

Initial assessment

Pro-Motion therapist determined a limitation of end-range active and passive left knee flexion due to left medial knee pain. Patella mobility was limited in all planes with specific limitation of medial glide. There was specific tightness of the lateral retinaculum. Poor activation of the left knee VMO muscle. The patient had 5/5 muscle strength for the left knee hamstring muscle group and 4/5 for the left knee quadriceps muscle group. Tests for meniscal and ligamentous integrity were negative.

Treatment Protocol

The patient was treated with specific patella mobilization techniques: stretches to the left knee lateral retinaculum. Activation of the left knee VMO muscle and achieving a VMO:VL ratio of 1:1. Strengthening of the left knee quadriceps muscle group. A home exercise program for the same was also administered to maintain the improvements achieved in physical therapy.

Treatment Outcome

The man attended 21 physical therapy sessions at Pro-Motion Physical Therapy and reached 100% pain resolution and a complete return of function. The recovery is attributable to achieving full patella mobility in all planes by increasing the extensibility of the lateral retinaculum of the knee. The patella was then maintained in the neutral position by activation of the left knee VMO and strengthening of the left knee quadriceps muscle.

Conclusion

The patient experienced an excellent result, with 100% pain relief and functional ability after living with left knee pain for 37 years. He joined his local gym to maintain the improvement he achieved and to start a fitness program for weight loss that his knee injury had prevented him achieving. At most recent contact, the patient had remained pain-free for eight months following physical therapy.

Discussion

Evaluation of a patient with an acute on chronic knee condition presents many challenges to the physical therapist. Multiple impairments are typical, and some are not immediately obvious. With this patient, the overall pain presentation was left knee pain, due to a combination of lateral patella tracking, due to a tight lateral retinaculum and poor control of the left knee medial stabilizing muscle (VMO). As a result, when increased force was imparted on the left patello- femoral joint (stairs), the outcome was pain.

To address a patient with this clinical presentation, a comprehensive evaluation is essential. All impairments must be identified and a physical therapy diagnosis formulated. Only then can an individualized evidence-based treatment approach be introduced. If this is done properly, a full recovery can be expected. It is essential to the outcome that the patient play his or her role with good compliance with a home exercise program While MRIs are helpful, their findings must correlate with the clinical findings of the physical therapy evaluation. The meniscal tear was not a factor in this patient's pain presentation.

For questions or further discussion of the findings in this case study – or to refer a patient to Pro-Motion Physical Therapy, call 815-521-4400.