Title:

Management of Patellofemoral Pain Targeting Hip, Pelvis, and Trunk Muscle Function: 2 Case Reports

Complete Reference:

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Key Words: Patellofemoral Pain, Hip, Pelvis, Adduction, Internal Rotation

Article Summary:

The purpose of this article was to demonstrate an alternative treatment approach for patellofemoral pain. The article compared a traditional treatment approach (patellar taping, quadriceps strengthening, patellar bracing, etc.,) with an exercise program consisting of primarily hip, pelvic, and trunk musculature.

PRI Clinical Application:

This article endorses the effectiveness of addressing lumbo-pelvic-femoral stability and strength to reduce extreme femoral-patellar movement during single leg stance activities. The PRI approach to femoral-patellar dysfunction is to examine the position of the pelvis and subsequently strengthen the femoral acetabular internal and external rotators once pelvic position is established. In the case of knee pain on a forwardly rotated left hemipelvis, the femur is orientated inwardly which positions the patella laterally in the trochlear groove. In this case, there is poor frontal plane control due to positionally long and weak gluteus medius and ischiocondylar adductor as a result of compensatory abduction and external rotation of the left femur. In the case of right knee pain, there is poor transverse plane control of the right femur secondary to a positionally long and weak gluteus maximus as a result of an internally rotated position of the right femur which is moving medially underneath the patella. This article discusses the measured changes in hip adduction during the step-down maneuver and the need to recruit the gluteus maximus as an external rotator in attempt to reduce the force across the femoral patellar joint.

Ideas for Future Clinical Research:

This article demonstrated an exercise program patellar femoral pain specifically targeting the musculature of the hip, pelvis, and trunk which resulted in a favorable outcome. Further research is needed to differentiate the relationship between the two sides of the lumbo-pelvic-femoral-complex and the specific muscles that need to be activated once proper pelvic position is achieved.