FUNCTIONAL TESTING IDENTIFIES FUNCTIONAL DEFICITS FOLLOWING MEDIAL PATELLOFEMORAL LIGAMENT RECONSTRUCTION

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The use of functional testing has become common place in anterior cruciate ligament reconstruction (ACL) rehabilitation to aid in decision making for return to play.

Many of the same neuromuscular and movement pattern issues that are concerning in ACL tear patients are also present in patients with patellar instability.

Use of functional testing to evaluate patellar instability patients for neuromuscular and movement pattern issues, however, has not been well studied.

- In particular, it is likely important to understand how patients are performing functionally after surgical intervention for patellar instability.
The purpose of this study was to evaluate functional testing in medial patellofemoral (MPFL) reconstruction patients.

Goal was to determine whether functional testing would identify patients who continued to have functional deficits.

Secondary was goal was whether an average timeline for a return to limb symmetry could be identified.
A retrospective review was conducted at a single institution to identify patients who underwent an isolated MPFL reconstruction as well as functional testing at the same institution between 2011 and 2017.

Patients completed physical therapy using a standardized protocol.

Standardized functional testing protocol
- Conducted between 4 to 8 months post-operatively.

As part of functional testing, all patients underwent three hop tests: single hop, crossover triple hop, and timed hop.
- Raw numbers as well as the limb symmetry index (LSI) was recorded.
Forty-nine patients met inclusion criteria

Mean age was 17.9 years

Patients tested at >90% LSI compared to the contralateral leg in single hop (49%), crossover triple hop (58%), and timed hop (67%) testing

Patients tested at >80% LSI compared to the contralateral leg in single hop (80%), crossover triple hop (89%), and timed hop (85%) testing.
Results suggest that, at an average of 6 months post-operatively, as many as half of patients that have undergone isolated MPFL reconstruction have not achieved limb symmetry in hop testing.

This is important for counseling of patients in terms of length of rehabilitation following surgery.
Conclusion

- Functional testing in patients undergoing MPFL reconstruction can be helpful to identify patients that have functional deficits