Reconstruction surgery is beneficial in certain adolescents with MPFL injuries

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Video Abstract

Keywords: patellar dislocation, patellofemoral instability, loose body, osteochondral defect, MPFL reconstruction, medial patellofemoral ligament, MPFL, knee dislocation, Rady Children's Hospital, The American Journal of Sports Medicine, ligament reconstruction, knee reconstruction, knee injury, sports medicine, athletic medicine, athlete, kneecap, intra-articular loose body, recurrent instability, knee surgery, adolescent medicine

Posted Date: October 12th, 2021

DOI: https://doi.org/10.21203/rs.3.rs-964690/v1

Abstract

A new study suggests that in children and adolescents with first-time patellar dislocation and an associated loose body, reconstruction of the medial patellofemoral ligament, or MPFL, is more beneficial than repair or no treatment related to the ligament at the time of surgery for the loose body. First-time dislocation of the patella, or kneecap, and resulting MPFL injuries are usually treated nonoperatively. However, recurrent dislocation occurs in over one-third of patients. In addition, among pediatric patients, about half of dislocations create a loose piece of bone or cartilage known as a loose body. Most patients experience recurrent instability if the loose bodies are removed or fixed without reconstruction of the MPFL. But because MPFL reconstruction carries some risk, the best treatment for young patients remains controversial. To help resolve the debate, a recent study published in The American Journal of Sports Medicine analyzed data from 76 adolescents with acute first-time patellar dislocation and associated loose bodies. The patients were treated at a single center. During loose body removal, 30 patients underwent MPFL reconstruction, while 46 patients underwent MPFL repair or no MPFL treatment. Follow-up data were available for at least 2 years after the initial procedure. Compared to repair or no treatment, MPFL reconstruction was associated with a lower rate of recurrent instability. Reconstruction was also associated with a greater return to sport and a lower risk of needing a second surgery. Patient-reported outcomes, including function scores, pain scores, and satisfaction, did not differ significantly between groups. Notably, patient-reported outcome data were not obtained from patients in the non-reconstruction group who required a second surgery. In addition, the non-reconstruction group data were collected retrospectively, and the sample sizes for both groups were small. The patients who didn't undergo MPFL reconstruction also had significantly greater patellar heights than those who did, which could have affected the instability findings. Despite these limitations, this study provides useful insight into treating young patients with MPFL injuries: Children and adolescents who have dislocated a kneecap for the first time and who must undergo surgery for a loose body could achieve greater benefits if their MPFLs are reconstructed than if their MPFLs are simply repaired or left to heal on their own.