Revision Patellar Tendon Repair With Hamstring Tendon Autograft Augmentation Following Failed Inferior Pole Patella Fracture Open Reduction and Internal Fixation

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Background

Patellar tendon ruptures are rare but may be severely debilitating injuries. Failed acute patella tendon repair has been reported to occur in 2% to 50% of patients, depending on the surgical technique used for initial repair. Given the challenges and complications associated with revision patellar tendon repair, debate exists on the preferred technique. Hamstring autograft augmentation involves the use of semitendinosus tendon autograft to repair the patellar tendon. Ideally, this treatment strategy provides reliable restoration of the extensor mechanism and results in favorable clinical outcomes.

Purpose

This video provides an overview and case presentation and demonstrates patellar tendon repair with hamstring tendon autograft augmentation after failed inferior pole patella fracture open reduction and internal fixation and acute patella tendon rupture.

Method

The anatomy, physical examination, and diagnosis are reviewed. The case presentation of a 46-year-old man with an acute patella tendon rupture and an inferior pole patella fracture nonunion is reviewed. On presentation 3 months after initial injury and after a thorough discussion of the risks, advantages, and prognosis, the patient elected to proceed with hamstring tendon autograft augmentation for restoration of function.

Results

At 3 months postoperatively, the patient was allowed to bear weight as tolerated and had full active extension of his knee.

Conclusion

Hamstring tendon autograft is easy to harvest, provides a stable construct, and offers reliable restoration of extensor mechanism function in patients with an acute patella tendon rupture.