Repair of Midsubstance Patellar Tendon Rupture With Hamstring Autograft Augmentation

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Background
Patellar tendon ruptures are rare but potentially devastating injuries. Acute repair after patellar tendon rupture affords the best opportunity for tension-free restoration of the extensor mechanism. Biologic augmentation of primary repair is believed to decrease strain across the repair site and reduce the risk of re-rupture.

Purpose
This video provides an overview and case presentation and demonstrates primary patellar tendon repair via suture anchor fixation and augmentation with hamstring autograft.

Methods
The anatomy of, pathogenesis of, diagnosis of, and treatment options for patellar tendon ruptures are reviewed. The case presentation of a 54-year-old woman with a patellar tendon rupture is reviewed. This injury occurred traumatically and was preventing the patient from ambulating and performing activities of daily living. After a thorough discussion of the risks, advantages, and prognosis, the patient elected to proceed with primary patellar tendon reconstruction with hamstring autograft augmentation to improve functional status.

Results
The patellar tendon was anatomically restored intraoperatively and augmented with the use of hamstring autograft. Postoperatively, the repair was maintained clinically and radiographically; however, the patient had some personal setbacks that slowed her recovery.

Conclusion
Primary repair with hamstring autograft augmentation is a viable surgical treatment option in patients with midsubstance patellar tendon ruptures. This treatment option affords good functional results, with decreased rates of failure. Adherence to postoperative rehabilitation is crucial for optimal outcomes.