

Distal Triceps Tendon Reconstruction With Achilles Tendon Allograft

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Background

Chronic triceps tendon rupture is a rare injury with limited reports in the literature. Chronic triceps tendon rupture is commonly observed in the younger, active patient population after a missed primary rupture because elbow extension can remain intact after initial injury. Treatment options are limited and include symptomatic management and activity modifications or reconstruction with the use of various allografts or autografts. Reconstruction with the use of an Achilles tendon allograft is a good surgical treatment option for restoration of muscle tension, strength, and function.

Purpose

This video provides an overview and case presentation and demonstrates triceps tendon reconstruction with the use of an Achilles tendon allograft and via distal double-row fixation.

Methods

The anatomy of, pathogenesis of, diagnosis of, and treatment options for chronic triceps tendon ruptures are reviewed. The case presentation of a 37-year-old male former professional bodybuilder who was involved in a motorcycle collision 11 months ago and has a missed triceps tendon rupture is discussed. The patient's injury was never managed and prevented him from performing activities of daily living and weightlifting. After a thorough discussion of the risks, advantages, and prognosis, the patient elected to undergo triceps reconstruction to improve strength and cosmesis of the elbow.

Results

The triceps tendon was reconstructed with the use of an Achilles tendon allograft, with Pulvertaft weave proximally and suture anchor-based double-row fixation distally. Postoperatively, the repair was maintained clinically and radiographically; however, the patient reported some perceived cosmetic differences and wanted to be evaluated by a plastic surgeon for possible filler options.

Conclusion

Triceps reconstruction with the use of an Achilles tendon allograft is a viable treatment option for chronic ruptures in patients who are unable to undergo primary repair. This treatment option is relatively simple to perform and may offer good functional results. Adherence to postoperative rehabilitation is crucial for optimal outcomes.