

Anterior Cruciate Ligament Repair With Concomitant Medial Meniscal Repair Using a Cortical Button and Static Suture-Based Augmentation

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Background

Anterior cruciate ligament (ACL) rupture is one of the most common injuries orthopaedic surgeons encounter. Historically, repair via open techniques and postoperative immobilization was associated with poor outcomes and is rarely performed, with ACL reconstruction being favored; however, interest in properly indicated repair via modern arthroscopic and rehabilitation techniques has increased. Proximal tears are associated with a higher intrinsic healing potential than midsubstance tears and are more common in older patients compared with younger patients.

Purpose

This video provides an overview and case presentation and demonstrates ACL repair with the use of a cortical button tensionable suture-based device and static suture-based augmentation.

Methods

The anatomy of, pathogenesis of, diagnosis of, and treatment options for proximal ACL ruptures are reviewed. The case presentation of a 50-year-old female active skier with a history of right knee pain after a noncontact twisting injury sustained 2 weeks ago is discussed. After a thorough discussion of the risks, advantages, and prognosis, the patient elected to proceed with ACL repair to attain knee stability, restore native proprioception and kinematics, and prevent progression of arthritic changes.

Results

The proximal ACL rupture was repaired with the use of a tensionable cortical button suture device and static suture-based augmentation. Postoperatively, the repair was maintained clinically and radiographically, and the patient returned to her active lifestyle, including skiing.

Conclusion

ACL repair is a viable option for acute ACL ruptures in the proximal ligament or avulsion injuries off the femoral condyle. This treatment option may be technically difficult to perform; however, several pearls and techniques may offer a reproducible, minimally invasive surgical treatment option associated with good functional results. Adherence to postoperative rehabilitation is crucial for optimal outcomes.