ACL Repair with BioBrace Augmentation and BEAR Implant

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Background:
Anterior cruciate ligament (ACL) tears are common injuries and were historically treated with ACL reconstruction. However, ACL reconstruction comes with the morbidity of autograft harvest or the necessity of using a cadaveric allograft. Previously, ACL repairs were abandoned due to high failure rates, but have recently been revisited as an alternative to ACL reconstruction due to the advent of new technologies such as the BEAR implant which forms an extracellular matrix scaffold that promotes ACL healing. The BioBrace, which is a reinforced bioinductive biologic and synthetic biocomposite, can be added to supplement the time zero biomechanical properties of the repair.

Purpose:
This video and case presentation demonstrates the surgical technique for an ACL repair with BioBrace augmentation and utilization of the BEAR implant.

Methods:
Evaluation, diagnosis, and treatment of ACL tears is discussed. This is a case of a 46-year-old male with a right proximal avulsion of his ACL that was treated with ACL repair with BioBrace augmentation and the BEAR implant.

Results:
The patient progressed through a standardized rehabilitation protocol. Post-operatively the patient was allowed to bear weight at 4-6 weeks and was allowed to discontinue the brace when full extension was achieved. At 4-6 months, the patient was allowed to return to athletic activity as tolerated.

Conclusion:
Surgical repair of the ACL has returned as a treatment option for ACL tears. The BEAR implant has been designed to improve outcomes of ACL repairs and the BioBrace can be utilized to augment the repair. Early results of ACL repair with the BEAR implant show promising clinical outcomes.