

PATIENT CASE EXAMPLE

AmnioFix[®] in ACL Reconstruction

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OVERVIEW/DISCUSSION

ACL tendon repair procedures can be accomplished by harvesting replacement tendon from similar structures, in this case the patellar tendon. A complication of this procedure is the development of scarring and pain at the tendon harvest site. Posterior to this surgical harvest site is a fat pad, which is prone to scarring and frequently results in the development of pain and a decreased range of motion in the knee. In the following case, AmnioFix was applied to modulate inflammation and reduce scarring at that site.

CLINICAL HISTORY

A 32 year old male patient presented with chronic ACL instability resulting from a football injury acquired 17 years previously.

TREATMENT

Surgical Procedure: The patient underwent an ACL reconstruction using a Bone-Tendon-Bone graft from the contralateral knee, with a partial lateral menisectomy and a multi-compartment chondroplasty. After harvesting patellar tendon for the bone-tendon-bone autograft ACL tendon repair, a 2 cm x 3 cm AmnioFix graft was placed under the remaining patellar tendon to repair the defect created in the tendon, and to prevent adhesions to the anterior tibia from developing. In this procedure, the AmnioFix was placed in front of the fat pad and behind the remaining patellar tendon. Surgical closure was then performed over the top of the fat pad, followed by the tendon sheath and bursa.

The intent of this approach was to decrease adhesions and improve healing of the tendon to augment its strength. The healing effects of the AmnioFix graft were expected to have the potential to decrease the post-operative tendonitis and resulting scarring, as well as the decreased range of motion that develops in 10% of patients following this surgical approach to ACL repair.



Figure 1



Figure 2

FOLLOW UP

Post-operative Course: The patient regained his knee range of motion rapidly and his patella and its tendon remained mobile throughout his recovery. At 9 months, the knee was stable with a negative pivot shift, and equal 30 degree and 90 degree drawer testing. Range of motion evaluation revealed extension equal to the opposite normal leg and 10 degree lack of flexion. He was able to resume active participation in his sports of choice, while experiencing only occasional symptoms with changes in weather.

CONCLUSION

This 32 year old male had a successful surgical repair of a ruptured ACL employing a patellar tendon graft procedure. The repair was supplemented by the inclusion of an AmnioFix graft into the closure of the surgical site to prevent adhesions and promote a more rapid and less painful return to adequate function of the patellar tendon.



Figure 3