

INSUFFICIENT CONTROL OF ROTATION STABILITY FOLLOWING ACL RECONSTRUCTION IN FOOTBALLERS

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Rotational control of the knee is key to ensuring the stability of the knee in particular for our footballers. A lack of rotational control is felt to contribute to secondary meniscal or cartilaginous problems. Combined Anterior Cruciate Ligament (ACL) with extra-articular lateral tenodesis or double-bundle reconstruction was performed to minimize rotational instability, but to date there is no consensus on which ACL reconstruction is optimal.

The Antero-Lateral Ligament (ALL) has recently been identified during dissection, confirmed by Magnetic Resonance Imaging (MRI), ultrasound imaging and identified during an arthroscopic exploration of the knee (1). Selective cutting of the anterolateral structures demonstrates that the ALL is critical in the control of internal rotational of the lateral compartment and therefore in the pivot-shift phenomena.

Due to this recent identification of the ALL and the absence of a perfect rotational control of the knee with our current ACL reconstruction techniques, an extra-articular lateral tenodesis will become relevant.

Based on 92 patients who underwent a combined ACL with ALL reconstructions between 2011 to 2012, we demonstrate that this combined reconstruction is an effective procedure at a minimum of 2 years follow-up. Our study demonstrates similar functional, objective and subjective results to those previously reported with ACL and ACL with lateral tenodesis reconstruction.

Our combined ACL and ALL reconstruction allowed a good antero-posterior and rotational laxity control without specific complications such stiffness or limited Range of Motion (ROM).

In the literature, at 2 years follow up, it appears that the rate of graft rupture is similar to the rate of contralateral rupture excepted for younger patients. At 5 years follow-up, the risk of ACL tear in the contralateral knee (11.8%) is double the risk of ACL graft rupture in the ipsilateral knee (5.8%). With over 2 years of follow-up, our series shows a contralateral ACL rate rupture (7.6%) similar to that described in the recent literature. Interestingly our ACL graft rupture rate of this combined ACL + ALL reconstruction (1.1%) is lower than that published.

This study demonstrates that a combined ACL and ALL reconstruction can be an effective procedure without specific complications at a minimum follow-up of 2 years.

Longer-term follow-up anatomical and biomechanical studies are necessary to determine whether these combined ALL reconstruction improve the results of contemporary ACL treatment especially in regard with problematic persistent rotational laxity and graft rupture.

References

1. Sonnery-Cottet B, Archbold P, Rezende FC, Neto AM, Fayard JM, Thaunat M. Arthroscopic Identification of the Anterolateral Ligament of the Knee. *Arthrosc Tech* 2014; 3(3): e389-392