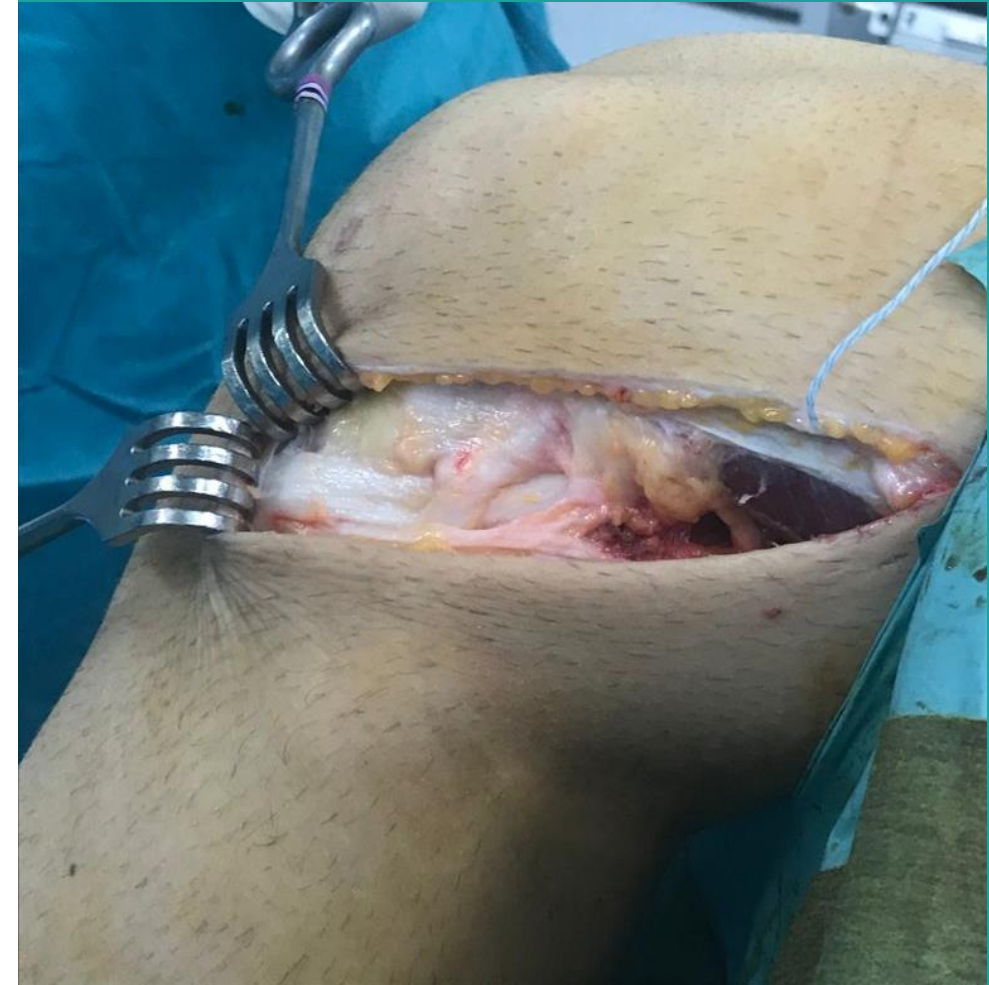


Mid-term results of anterior cruciate ligament reconstruction with anterolateral augmentation, Lemaire tenodesis, in soccer players. Functional results and return to play.



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Disclosure

Smith & Nephew Consultant



INTRODUCTION

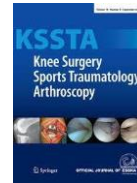
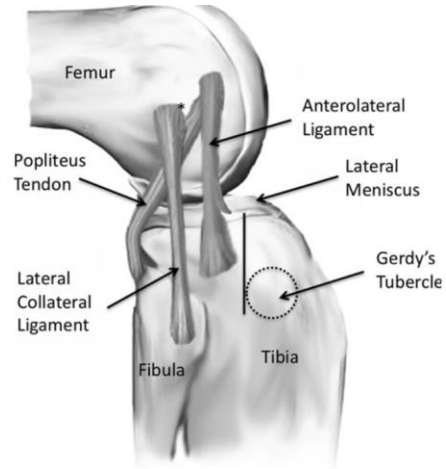
Rotational instability associated with anterior cruciate ligament (ACL) injuries is a common decompensating factor in knee stability. The rate of persistence of rotational instability, measured by Pivot Shift, is a frequent cause of stress and is usually associated with surgery failure.

Previous anatomical and biomechanical studies have shown the important role of anterolateral structures in rotational stability. Although management techniques for anterolateral structures are indicated in the context of rotational instability, few studies have documented their results.

Antero-lateral ligament anatomy

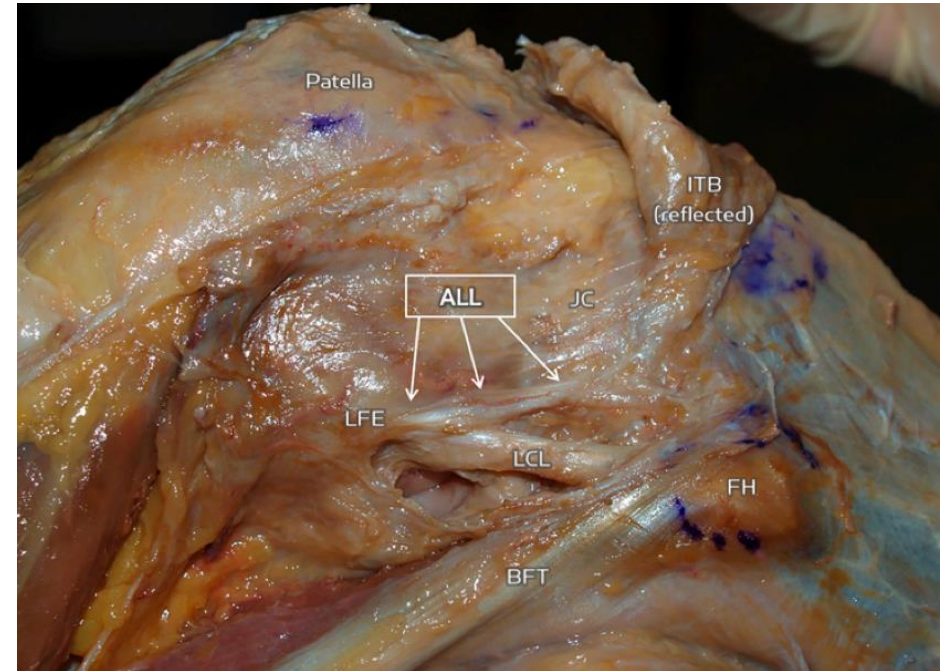


Segond 1879



The anterolateral ligament of the human knee: an anatomic and histologic study

Jean-Philippe Vincent · Robert A. Magnussen · Ferittu Gezmez · Arnaud Uguen · Matthias Jacobi · Florent Weppe · Ma'ad F. Al-Saati · Sébastien Lustig · Guillaume Demey · Elvire Servien · Philippe Neyret



- The ALL is a distinct ligament at the anterolateral side of the human knee,
- The femoral attachment is posterior and proximal to the lateral epicondyle,
- The tibial attachment lies between Gerdy's tubercle and the fibular head.
- The ALL has a constant attachment to the lateral meniscus.



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Anatomy of the anterolateral ligament of the knee

Steven Claes,¹ Evie Vereecke,² Michael Maes,¹ Jan Victor,³ Peter Verdonk⁴ and Johan Bellemans¹

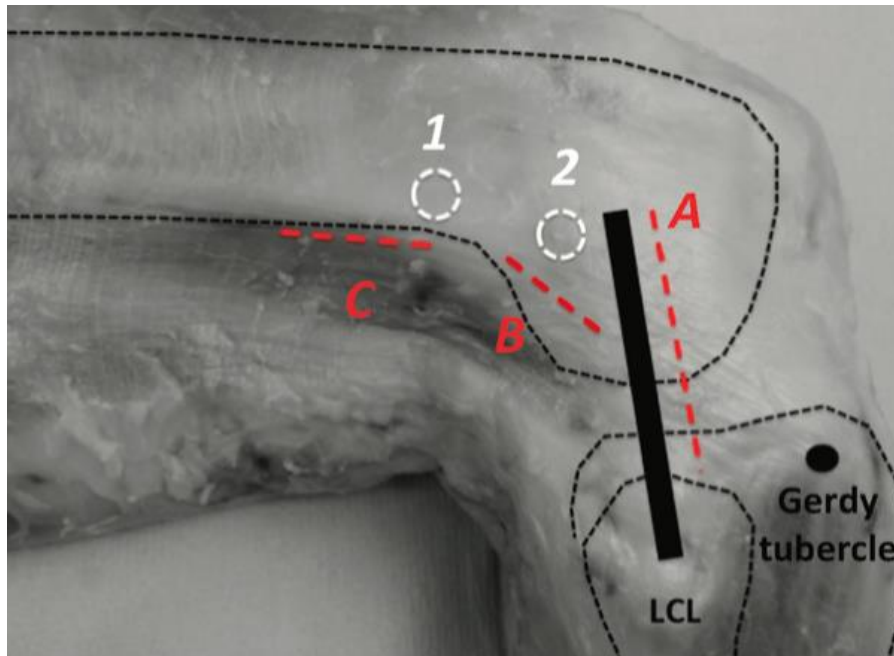
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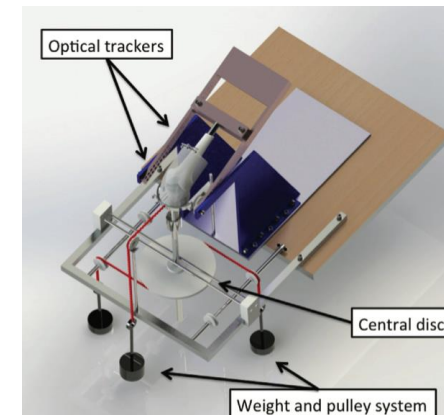
ALL Biomechanics



- Isolated intra-articular ACL reconstruction failed to restore intact knee kinematics in the presence of a combined ACL plus anterolateral injury.
- ALL acts as a restraint for internal rotation of the tibia and affects the pivot-shift in the ACL-deficient knee.
- When ACL reconstruction was combined with either a MacIntosh or Lemaire procedure (LET), knee laxity did not differ significantly from the native knee at the time of surgery.

Biomechanical Comparison of Anterolateral Procedures Combined With Anterior Cruciate Ligament Reconstruction

Eivind Inderhaug,^{*†} MD, PhD, Joanna M. Stephen,^{**‡} PhD, Andy Williams,[‡] FRCS(Orth), FFSEM, and Andrew A. Amis,^{*§||} FREng, DSc(Eng)
 Investigation performed at Imperial College London, London, UK



PURPOSE

To describe our results in a period of 6 years with (2015-20) a minimum follow-up of 2 years, regarding the use of anterolateral augmentation (LET) with Lemaire-type modified tenodesis associated with revision ACL Reconstruction. In terms of functional results and sports return.

Study Design: Case series; Level of evidence IV.

Material and methods

Evaluation of the functional results and return to sport of 51 patients with ACLR revision on a 6-years period (2015-2020) at the Mutuallidad del Futbolistas Españoles.

OUTCOMES

Clinical Results:

- Tegner – Lyshom functional score

Return to Sport



Results

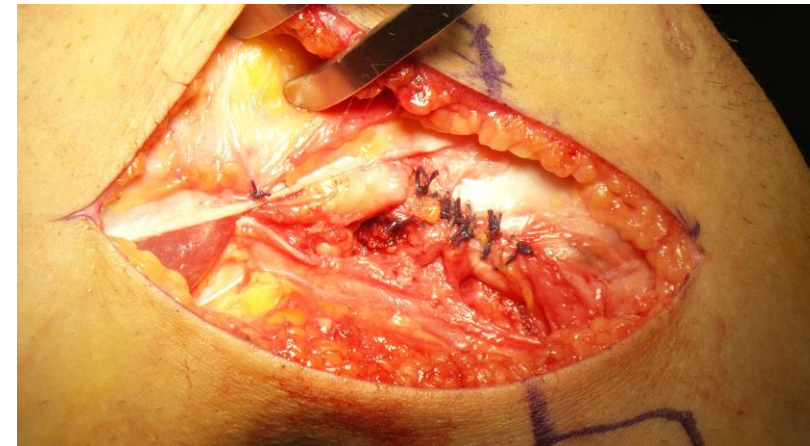
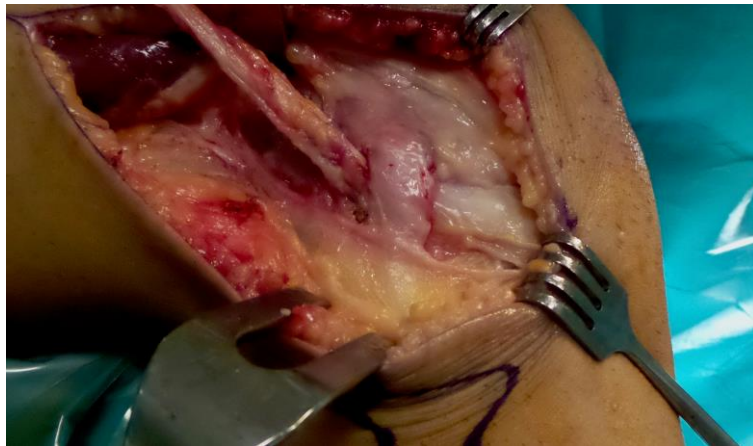
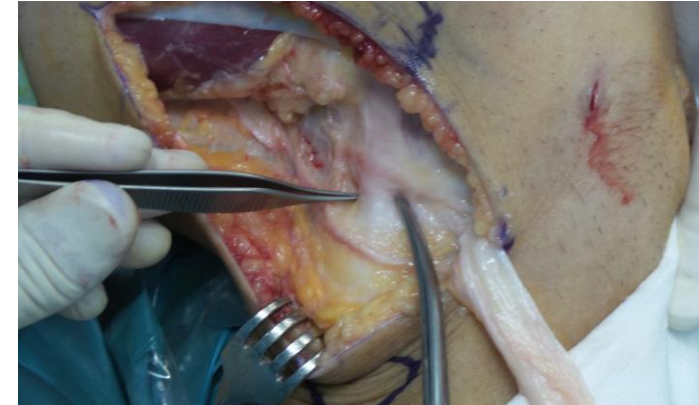
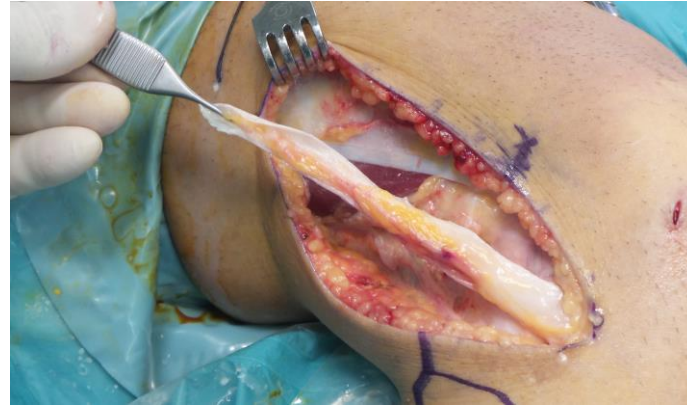
51 ACLR Revision:

- 25 contralateral ACL
- 26 Bone Aquiles tendon Allograft.

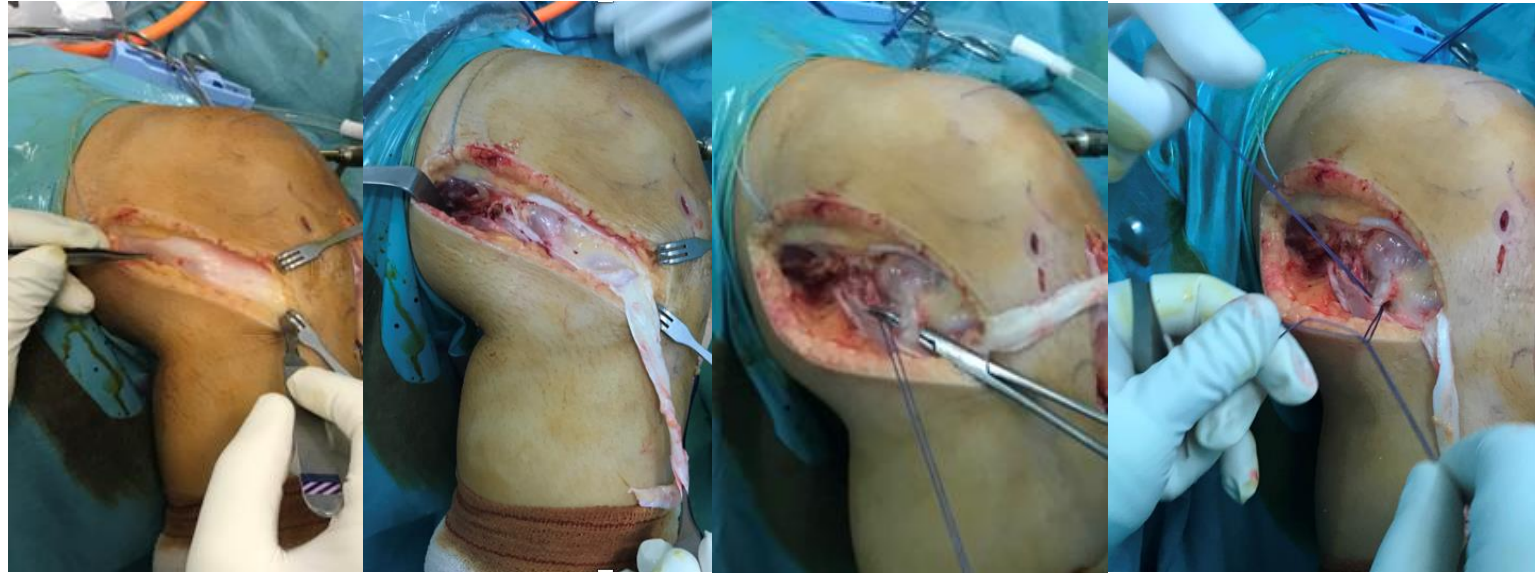
- 50/51 patients with > 90 score in Tegner-Lysholm functional scale
- Most of the patients showed $> 90\%$ in ACL-RSI.
- 18 patients are not currently playing soccer



LET Lemaire-type modified



LET Lemaire-type modified



CONCLUSIONS

ACL revision surgery with modified Lemaire-type tenodesis is a procedure that restores knee stability in a high percentage, with excellent functional results, allowing a return to professional and semi-professional football, without further objective functional deterioration.

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