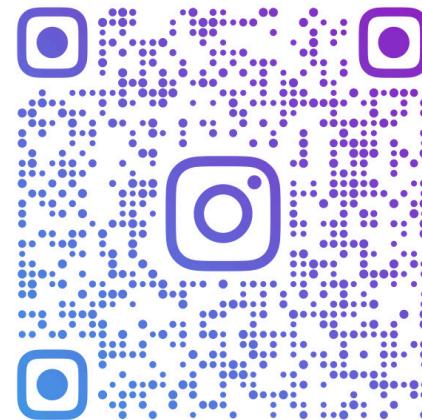


# ROTATORY INSTABILITY OF THE KNEE

## MENISCUS VS ALC ?



PR.MATT.OLLIVIER

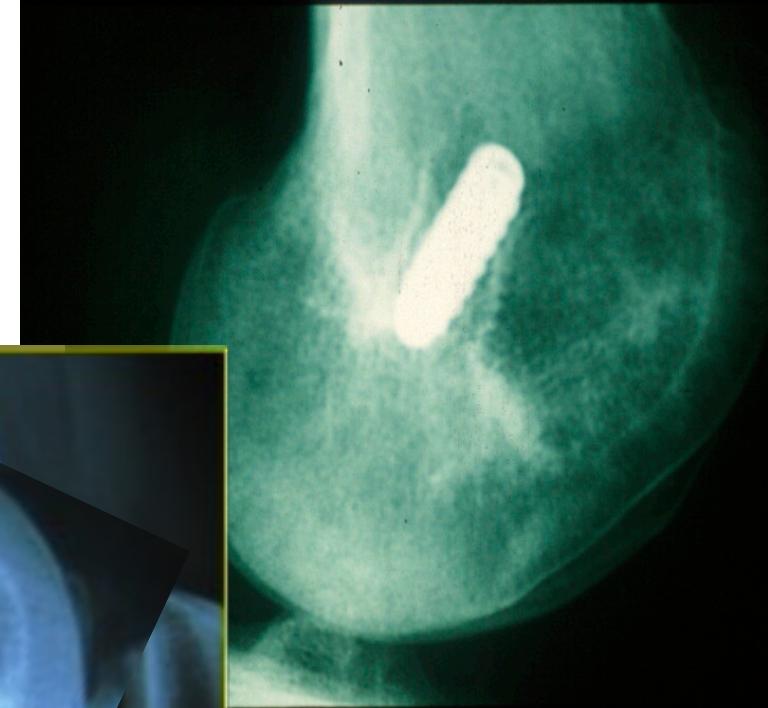
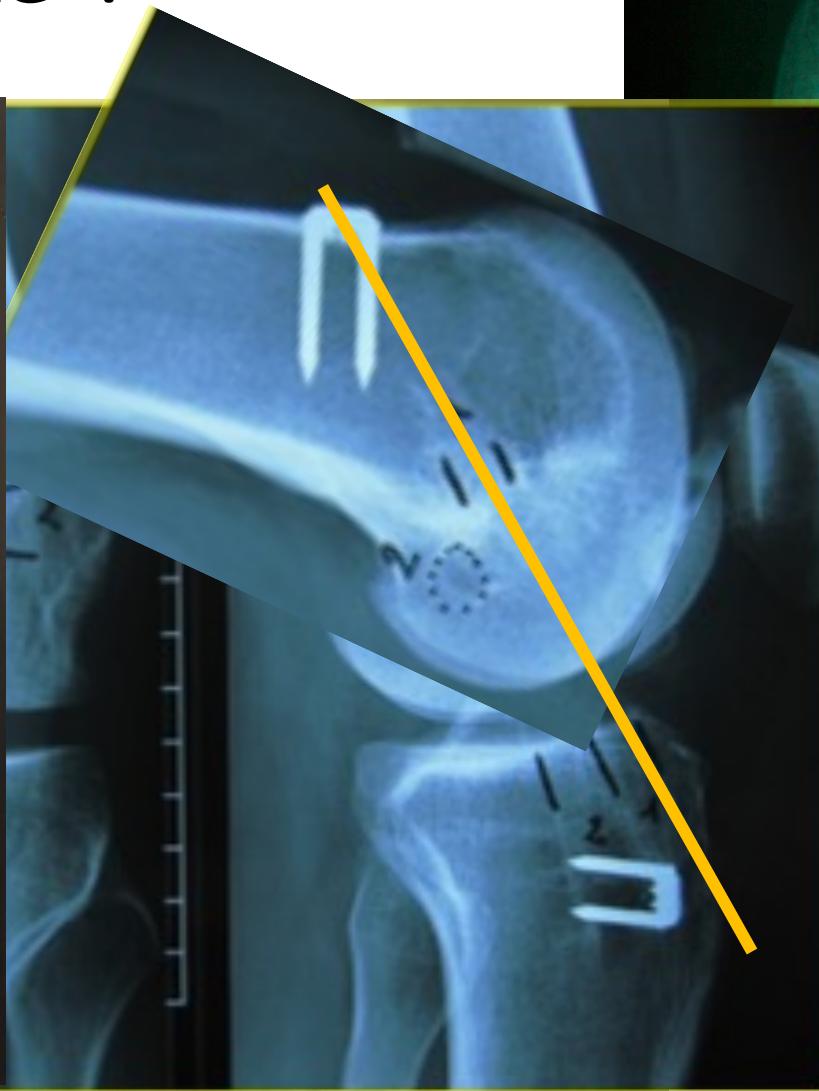
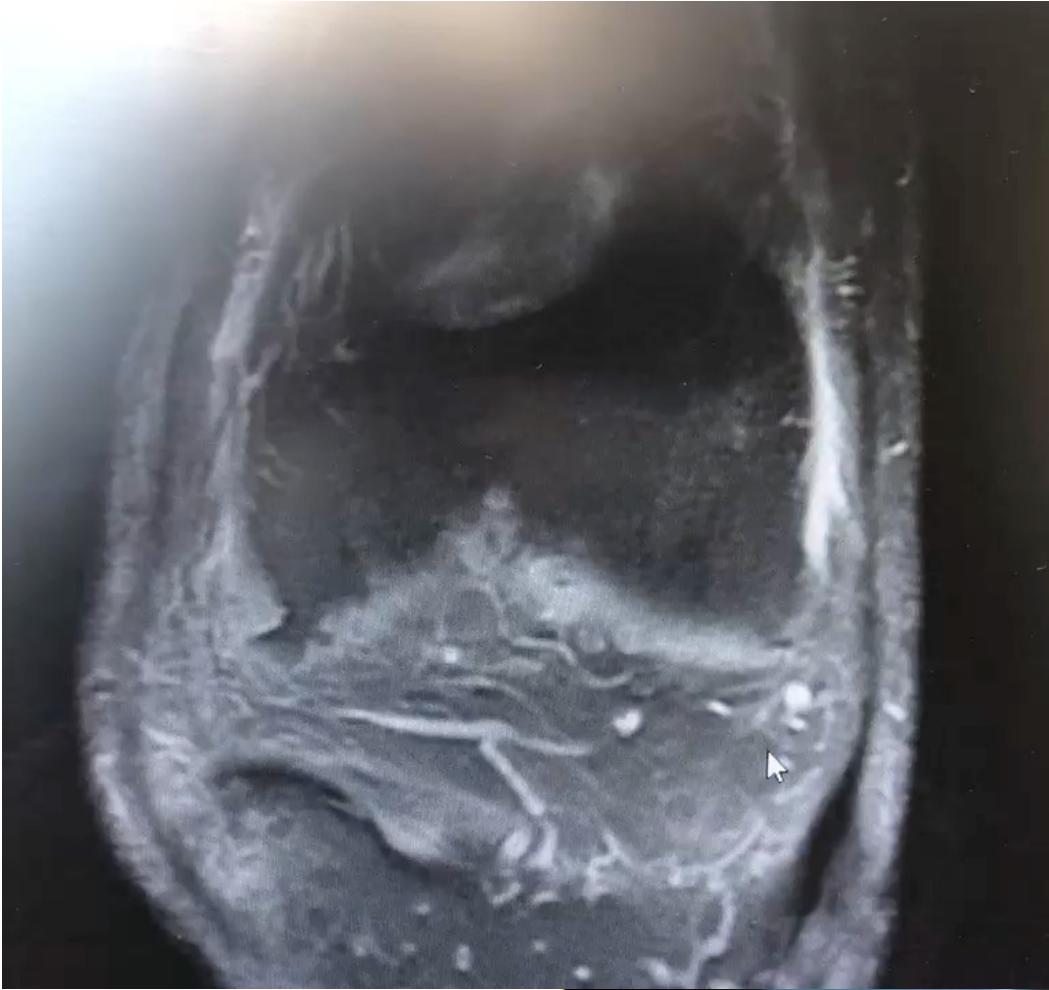


## RATIONALE

# Why ACLs Fail?

- New trauma
- Tunnel position issue
- Persistent Rotatory Knee Laxity

If No surgical Mistake ?



# Literature



[Knee Surgery, Sports Traumatology, Arthroscopy](#)  
April 2017, Volume 25, Issue 4, pp 991–996 | [Cite as](#)

Historical perspective on the “discovery” of the anterolateral ligament of the knee

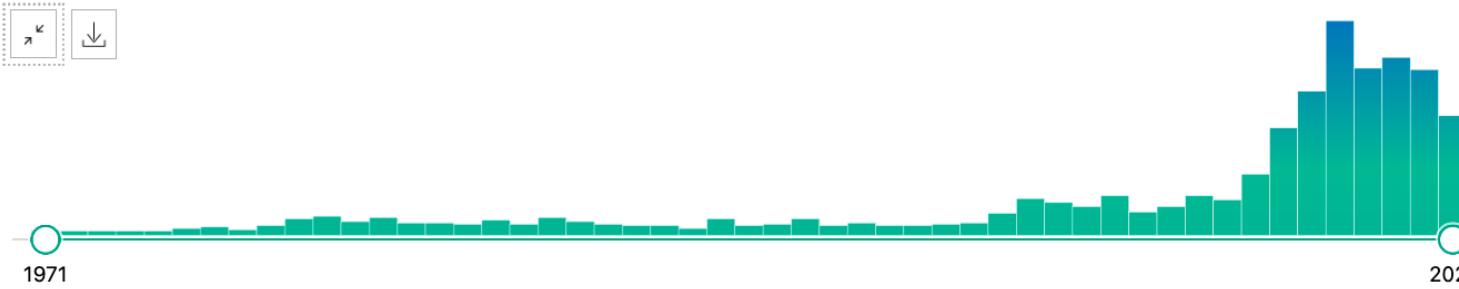
Authors

[Authors and affiliations](#)

Etienne Cavaignac David Ancelin, Philippe Chiron, Jean-Louis Tricoire, Karine Wytrykowski, Marie Faruch,

RESULTS BY YEAR

991 results



>1500 Papers / 7 years

>50 EDITORIALS

[Editorial Commentary: The Anterolateral Ligament of the Knee Seems More Fact](#)

[Editorial Commentary: Filling the Void in Translational Research for Lateral Extra-](#)

[Editorial Commentary: Addressing the Anterolateral Side of an Anterior Cruciate](#)

[Editorial Commentary: Anatomy of the Anterolateral Ligament of the Knee-The](#)

[Editorial Commentary: The Anterolateral Ligament Really Exists, Now Show Me How](#)

## **'Anterolateral Ligament Expert Group consensus paper on the management of internal rotation and instability of the anterior cruciate ligament - deficient knee'**

Bertrand Sonnery-Cottet<sup>1</sup> · Matthew Daggett<sup>2</sup> · Jean-Marie Fayard<sup>1</sup> ·  
Andrea Ferretti<sup>3</sup> · Camilo Partezani Helito<sup>4</sup> · Martin Lind<sup>5</sup> · Edoardo Monaco<sup>3</sup> ·  
Vitor Barion Castro de Pádua<sup>6</sup> · Mathieu Thaunat<sup>1</sup> · Adrian Wilson<sup>7</sup> ·  
Stefano Zaffagnini<sup>8</sup> · Jacco Zijl<sup>9</sup> · Steven Claes<sup>10</sup>

# Graft Matters ?



- 90% of evidence => hamstring. (DT3-G2 fashioned)
- Global Trends favored Quads +++
- Deep vs Superficial Lemaire ?



Orthopaedics & Traumatology: Surgery & Research

Volume 107, Issue 2, April 2021, 102819



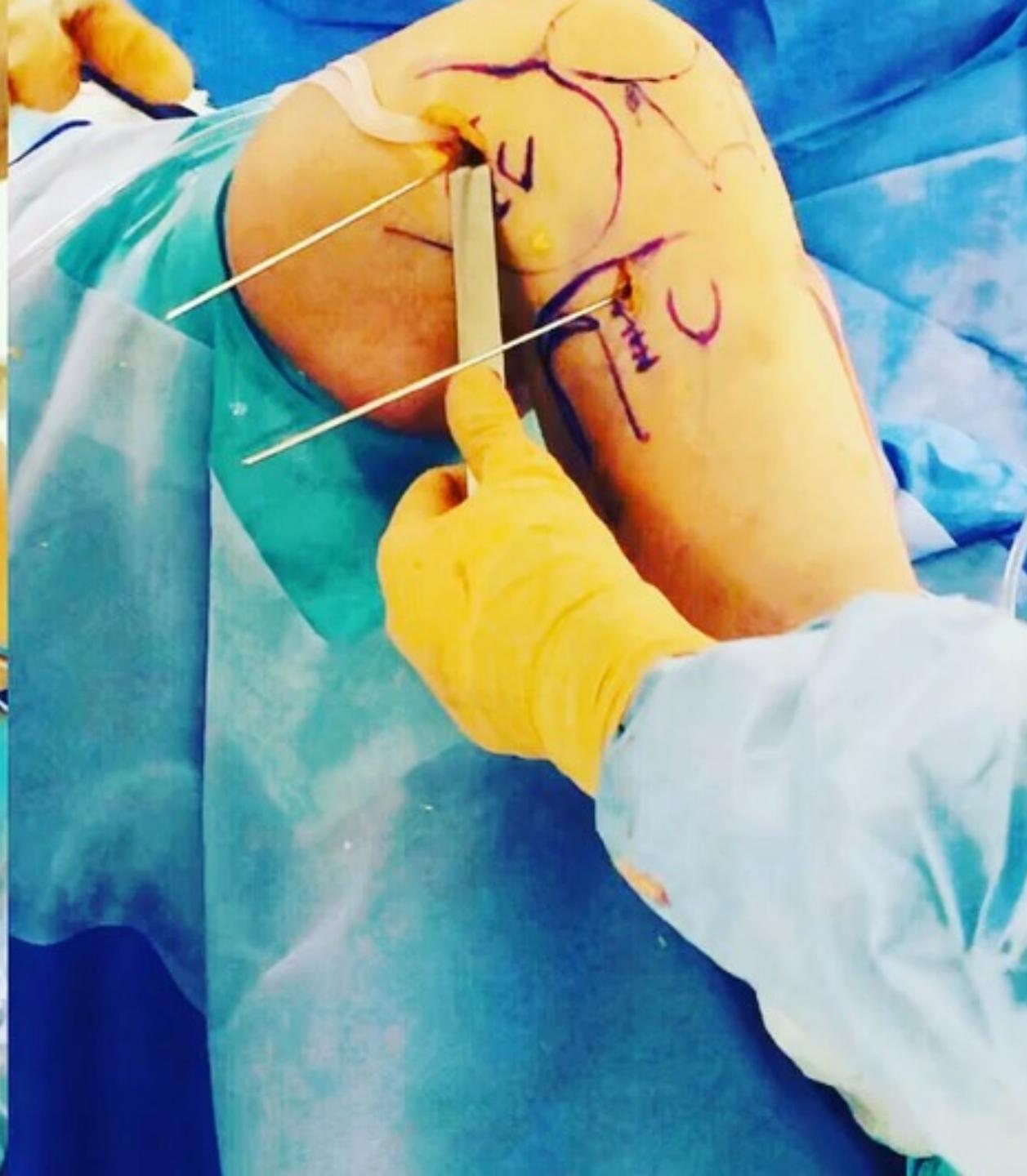
Technical note

Minimally invasive harvesting of the quadriceps tendon: Technical note

Matthieu Ollivier <sup>a</sup>, Jérémie Cognault <sup>b</sup>, Régis Pailhé <sup>c, d, e</sup>, Xavier Bayle-Iniguez <sup>f, g</sup>, Etienne Cavaignac <sup>h, i, j</sup>, Jérôme Murgier <sup>g, k, o</sup>

Show more

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# SCORES

△ IKDC

△ TEGNER

△ ACL\_RSI

△ Sports' Level



$$ST4 = ST4+ALL = QT + \text{Lemaire}$$

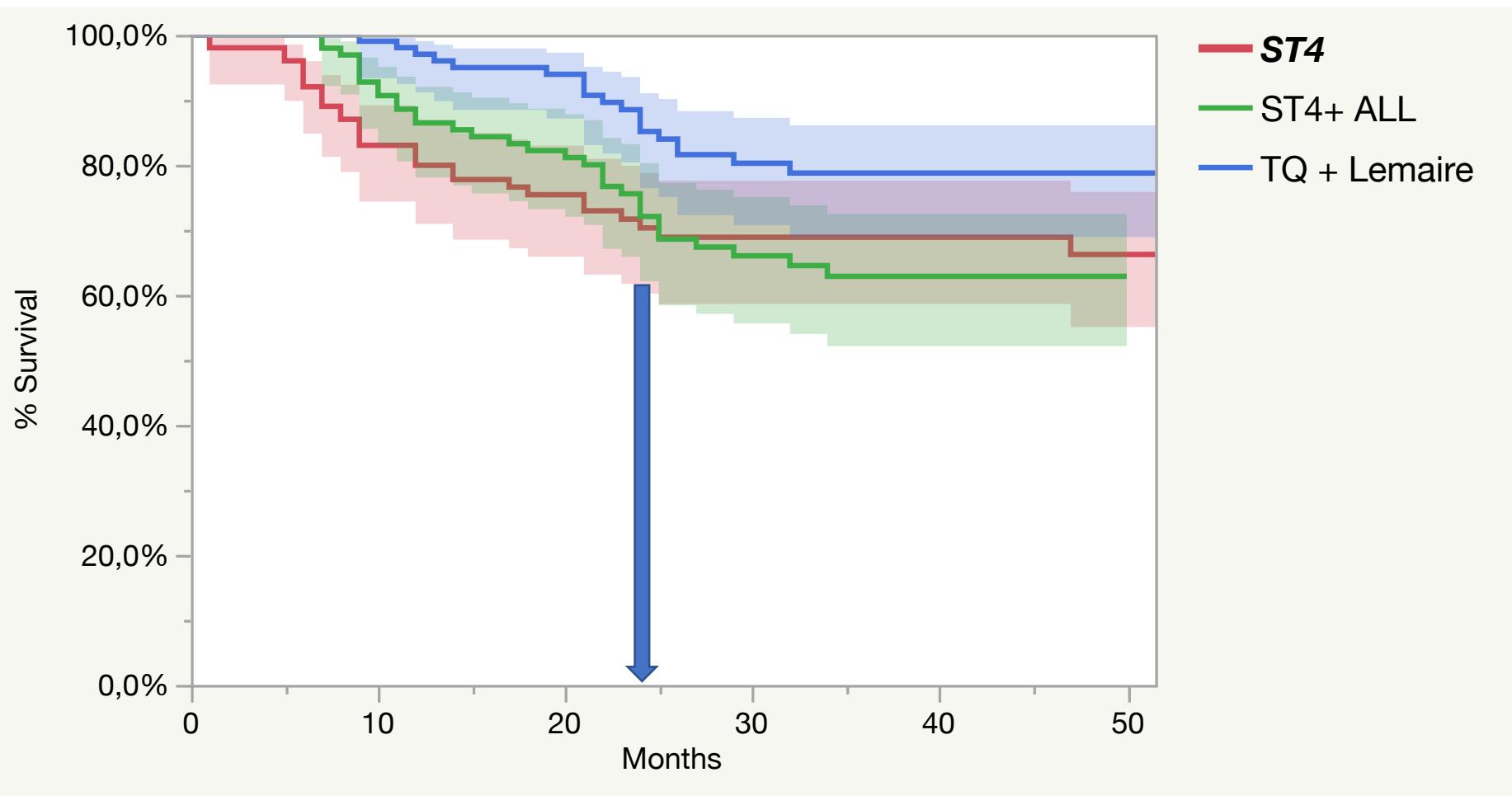
# Incidence and Risk Factors for Residual High-Grade Pivot Shift After ACL Reconstruction With or Without a Lateral Extra-articular Tenodesis

Christophe Jacquet,\* MD, Charles Pioger,\* MD, Romain Seil,<sup>†</sup> MD, PhD, Raghbir Khakha,\* MBBS, Sébastien Parratte,<sup>‡</sup> MD, PhD, Camille Steltzlen,<sup>§</sup> MD, Jean-Noel Argenson,\* MD, PhD, Nicolas Pujol,<sup>§</sup> MD, and Matthieu Ollivier,\*<sup>||</sup> MD, PhD

*Investigation performed at the Institute of Movement and Locomotion, Department of Orthopedics and Traumatology, St Marguerite Hospital, Marseille, France*



# PIVOT SHIFT REAPPEARANCE

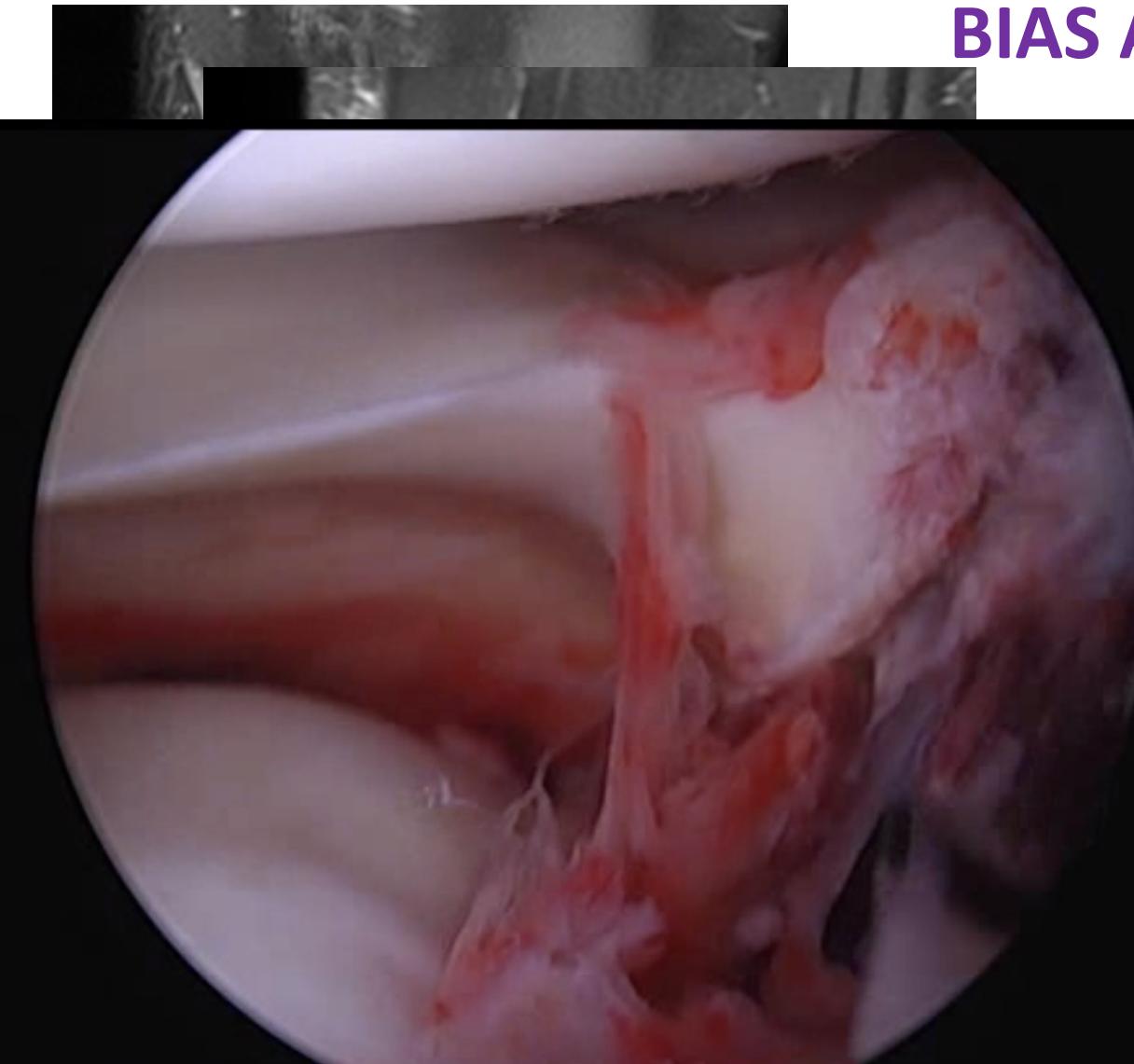


**ST+ALL > ST 23 Months**

# DISCUSSION

What about the QUADS ?

BIAS AHEAD



5.00 mm Location: -168.00 mm

# Incidence and Risk Factors for Residual High-Grade Pivot Shift After ACL Reconstruction With or Without a Lateral Extra-articular Tenodesis

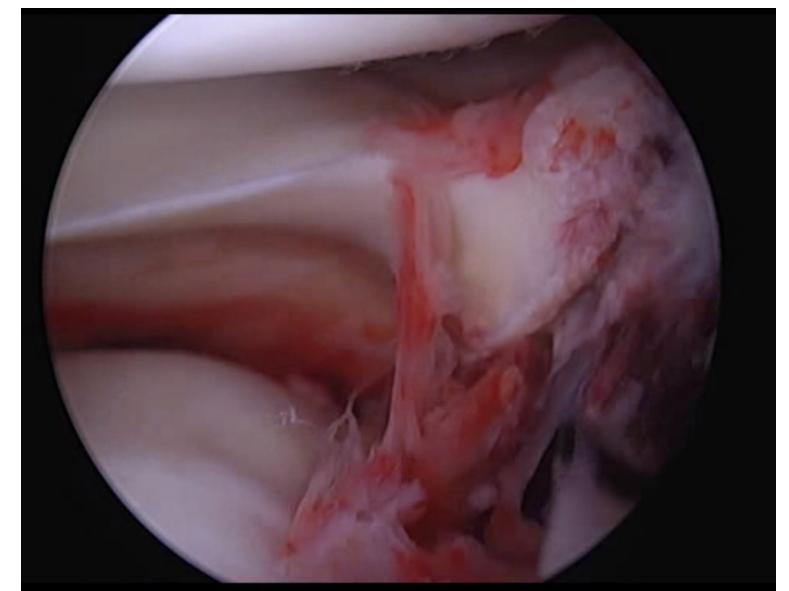
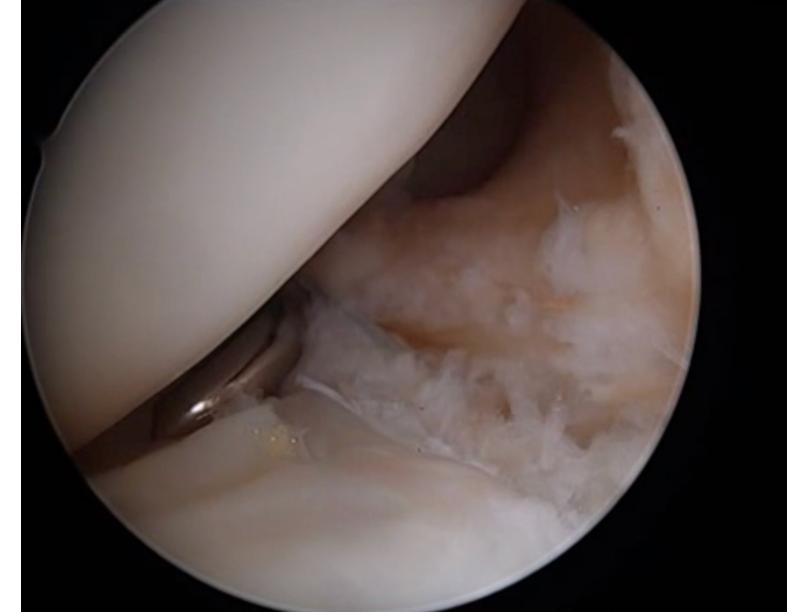
Christophe Jacquet,\* MD, Charles Pioger,\* MD, Romain Seil,<sup>†</sup> MD, PhD, Raghbir Khakha,\* MBBS, Sébastien Parratte,<sup>‡</sup> MD, PhD, Camille Steltzlen,<sup>§</sup> MD, Jean-Noel Argenson,\* MD, PhD, Nicolas Pujol,<sup>§</sup> MD, and Matthieu Ollivier,\*<sup>||</sup> MD, PhD

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**Patients suffering from either :**

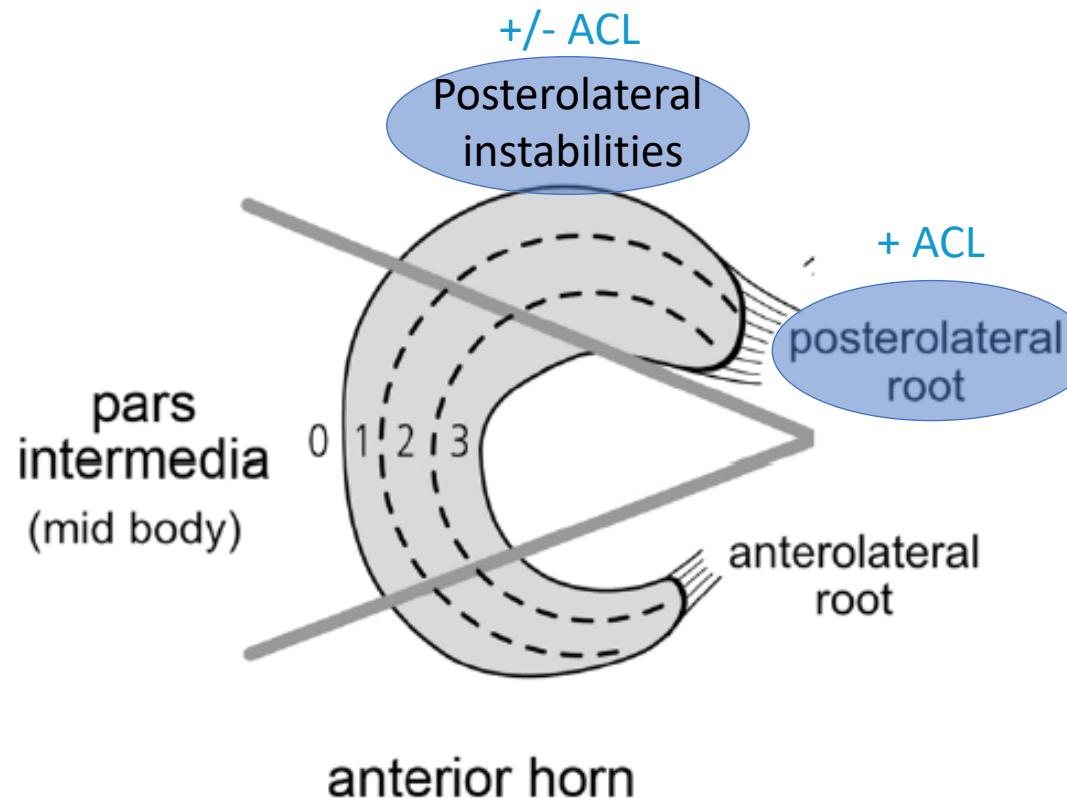
- **Rerupture**
- **Persistent rotatory Instab**
- **New Meniscus lesion**

**were often those with untreated meniscus lesion  
more than those without LET**

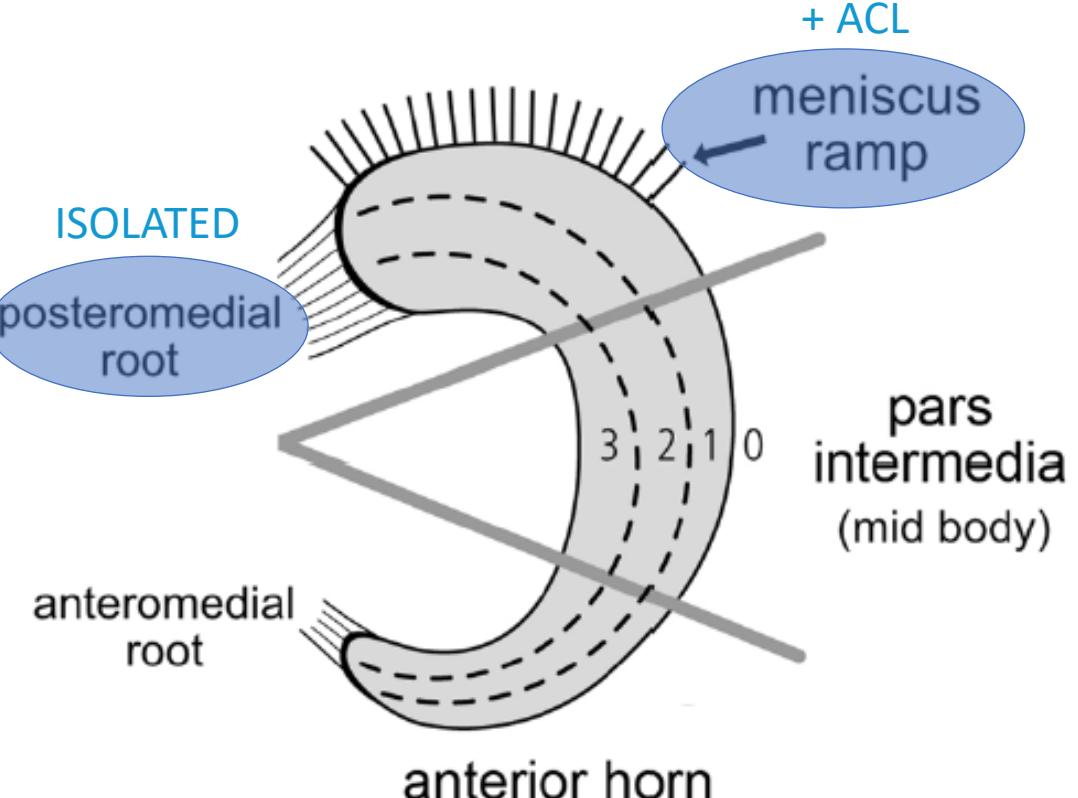


## New meniscus lesions

### LATERAL MENISCUS



### MEDIAL MENISCUS



# Rotational control in ACL injured knees

## Intraarticular, soft tissue origin

### *Medial ramp lesion*

± 25% of all ACL tears



Bankart-like lesion

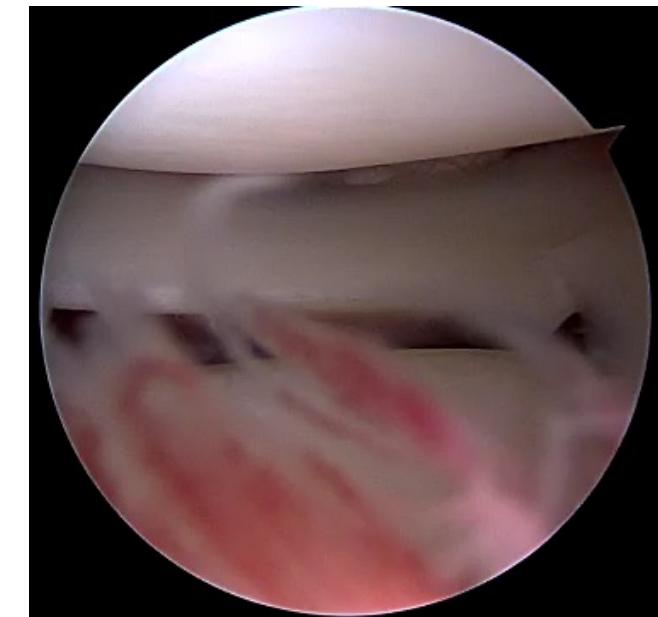
Lateral root tear

± 15% of all ACL tears



In > 1/3<sup>d</sup> of all ACL reconstructions these injuries were neither documented nor treated.

### *Lateral meniscus instability*



# Biomechanics of lateral root lesions: PRLM tears increase IR close < 30° of knee flexion

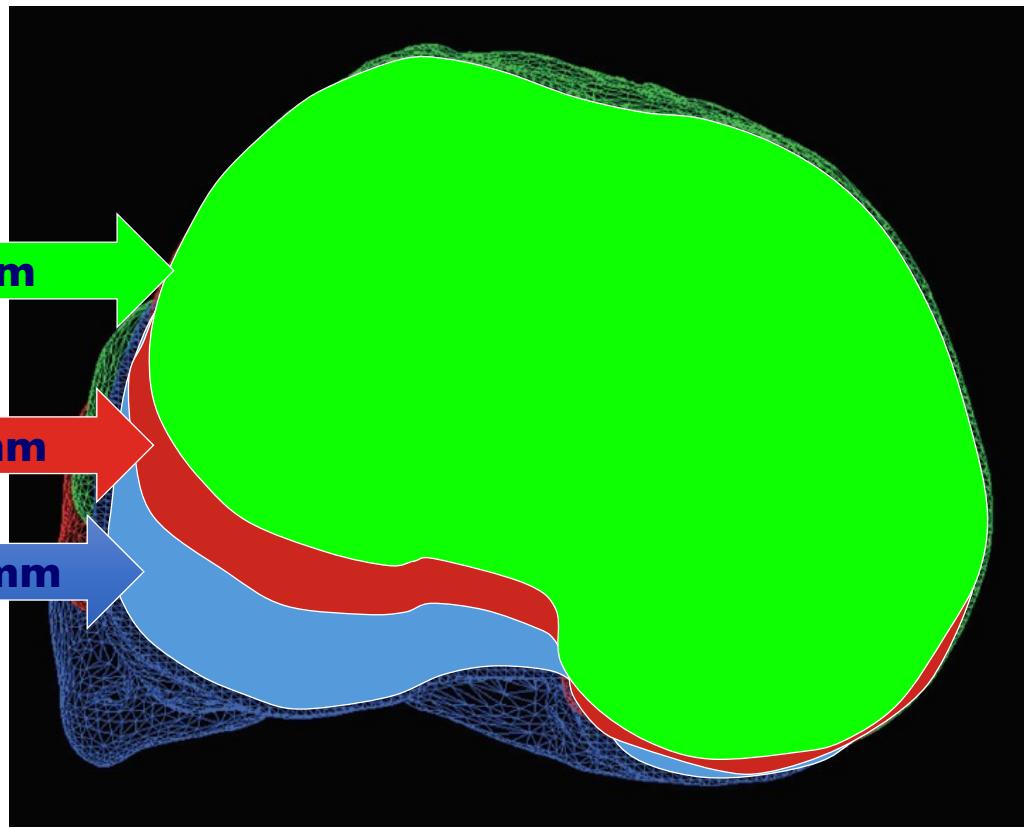
*n=8 cadaver knees*

Tibial translation  
during pivot shift (mm)

ACL & post. root  
LM sectioned      8,1 mm

ACL sectioned      6,0 mm

ACL intact      2,6 mm



**Patients with Meniscus Posterolateral root tears repair during ACL reconstruction achieve comparable post-operative outcome than patients with isolated ACL reconstruction**

BARD Thomas, M.D.<sup>\*</sup>

BERNARD DE VILLENEUVE Florent, M.D.<sup>\*</sup>

FERREIRA Alexandre, M.D.<sup>\*</sup>

PITHIOUX Martine, PhD<sup>\*</sup>

SHARMA Akash, M.D.<sup>\*</sup>

PANGAUD Corentin M.D.<sup>\*</sup>

OLLIVIER Matthieu, M.D, PhD<sup>\*</sup>

JACQUET Christophe, M.D, PhD<sup>\*</sup>

<sup>\*</sup> Aix-Marseille University, CNRS, ISM UMR 7287, 13288, Marseille cedex 09, France

+ Institute of movement and locomotion, Department of Orthopedic surgery and Traumatology St. Marguerite Hospital 270 Boulevard Sainte Marguerite, BP 29 13274 Marseille, France

Jacquet et al. J EXP ORTOP (2021) 8:17  
<https://doi.org/10.1186/s40634-021-00327-0>

Journal of  
Experimental Orthopaedics

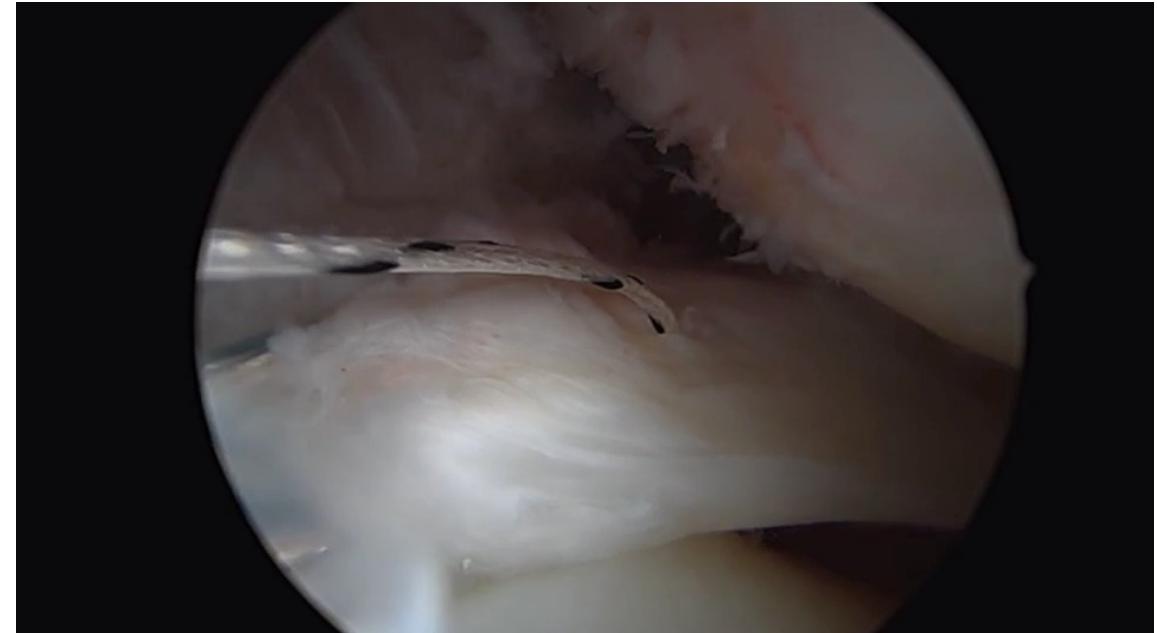
Open Access



ORIGINAL PAPER

## The aspiration test: an arthroscopic sign of lateral meniscus posterior horn instability

Christophe Jacquet<sup>1,2</sup>, Amanda Magosch<sup>1</sup>, Caroline Mouton<sup>1,3</sup> and Romain Seil<sup>1,3,4\*</sup> 



# The Time Paradox

ACL surgical trends evolve in the last five years for young European surgeons: results of the survey among the U45 ESSKA members

S Cerciello et al. Knee Surg Sports Traumatol Arthrosc. 2022.

Most of the initial clinical paper on ALCr focus  
**on two different time frames...**

before and after

**extensive use of ALCr  
and surely ramp / root repair**

RCT and high level CS rarely describe meniscus status of their ALCr's  
RCT and high level CS rarely describe PIVOT SHIFT RECURENCY

# feelings....

ACL Alone is not Sufficient to control Pivot shift

ALL/ALC Repairs will give you at Least Two Good Years

RAMP / PLR is a big part of :

Stability =  $f($  Graft + Surgery + **MENISCI** + ALC $)$

ORIGINAL PAPER

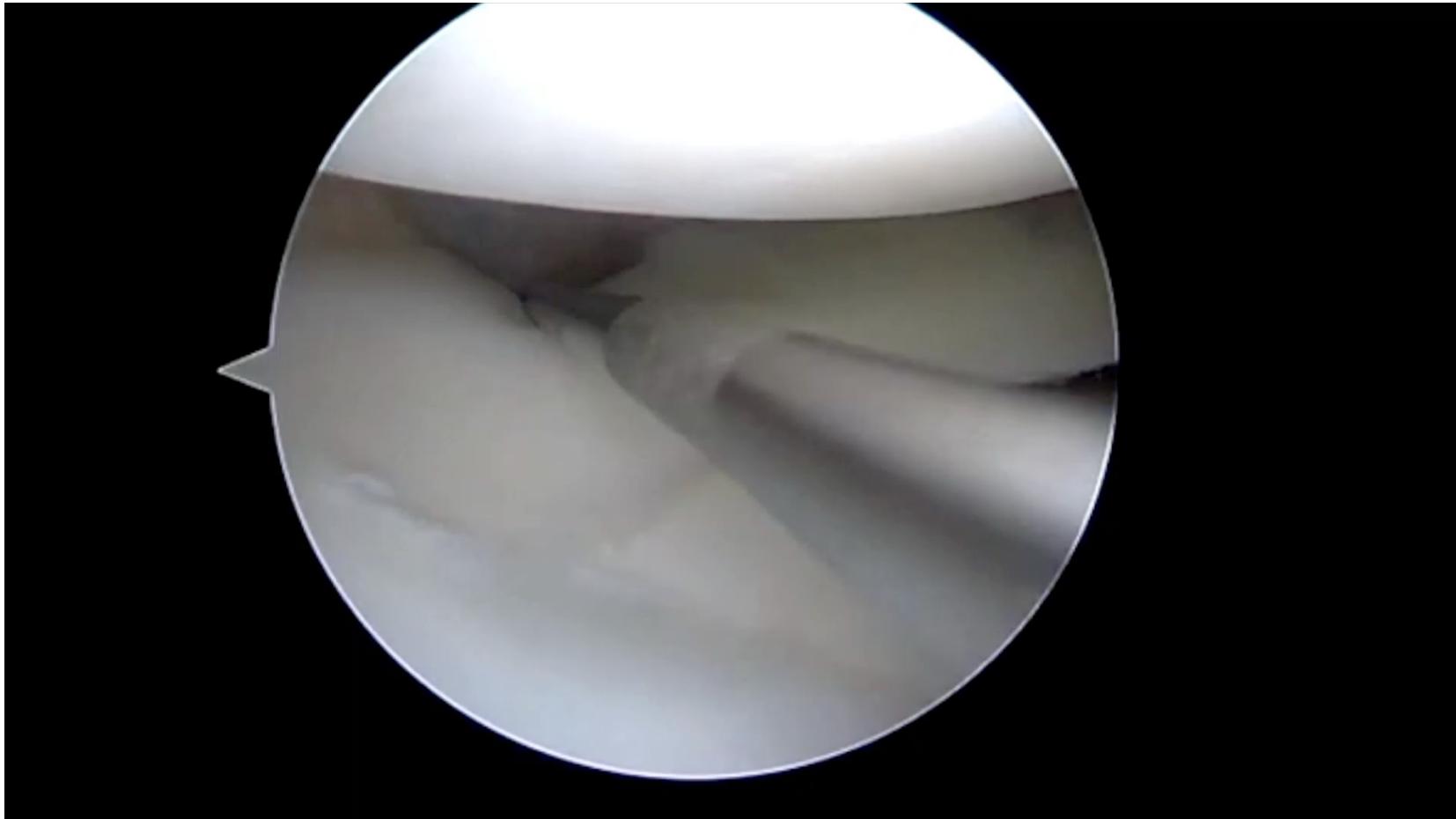
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The aspiration test: an arthroscopic sign  
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## Example of a PRLM instability





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