The Collision Between the ACL and the Lateral Extrarticular Tenodesis Femoral Tunnels Increases the Risk of ACL Failure

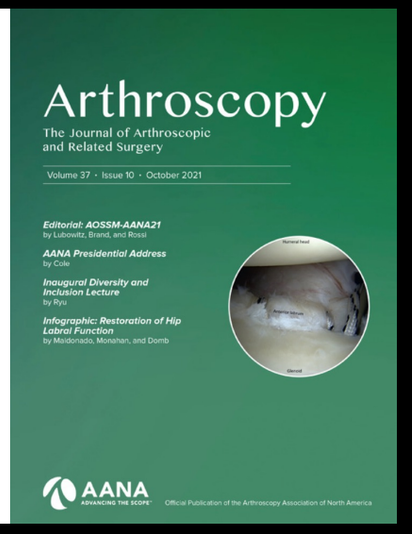
Simone Perelli MD, PhD
Hospital Quiron Dexeus (ICATME)
Hospital Del Mar
Barcelona

ACL
Study Group

Background

Evaluating for Tunnel Convergence in ACL Reconstruction With Modified Lemaire Tenodesis: What Is the Best Tunnel Angle to Decrease Risk?

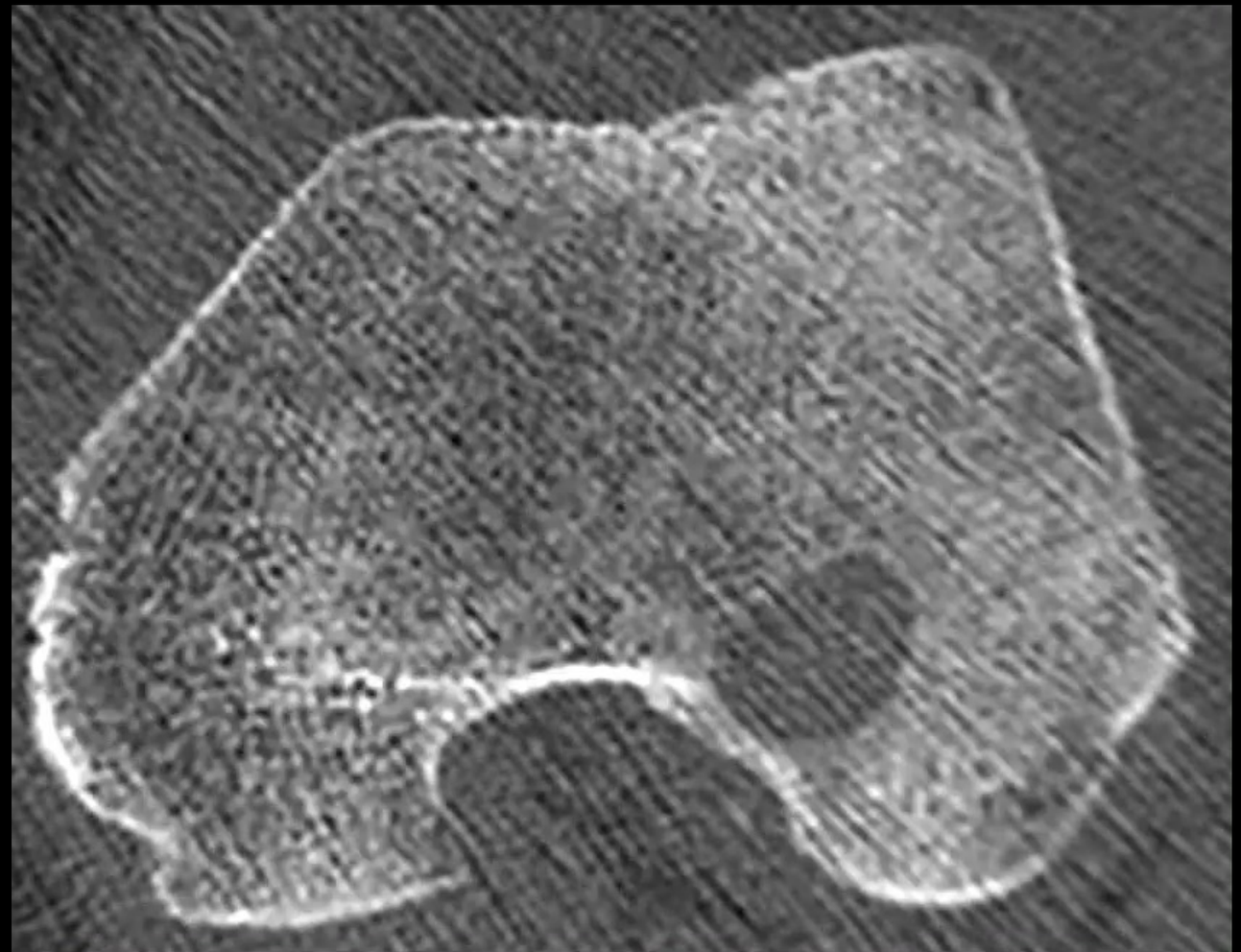
Simone Perelli, M.D., Juan Ignacio Erquicia, M.D., Maximiliano Ibañez, M.D., Gianmarco Daesino, M.D., Pablo Eduardo Gelber, M.D. Ph.D., Xavier Pelfort, M.D. Ph.D., and Juan Carlos Monllau, M.D., Ph.D.



> 5mm	< 5mm	Collision
48	18	14
60%	22,5%	17,5%

Purpose

To analyze the risk of ACL failure in the case of collision between the femoral tunnels of the ACL and the anterolateral extraarticular tenodesis.



Method

- MRI at 6 and 12 months, then only if new injury
- Clinical evaluation and KT1000 at 6-12 months, then yearly
- 5 years follow up

Cumulative failure:
graft rupture in MRI and/or clinical failure

presence of subjective instability and an abnormal KT-1000 side-to-side difference ≥ 4mm

Crawford SN et al. Long-term failure of anterior cruciate ligament reconstruction. Arthroscopy. 2013;29(9):1566- 1571.

Results

	GRAFT RUPTURE	CLINICAL FAILURE	Incidence
Group 1 (14 collision)	2 patients	4 patients	42%
Group 2 (18 < 5mm)	1 patient	NO patients	5,5%
Group 3 (48 > 5mm)	1 patient	NO patients	1,8%

p=0,011

Results

- Female patients
- Ramp, root, bucket handle tear

NO

- Mean graft diameter

DIFFERENCE

- Type of cortical fixation

In all 6 cases of failure of group 1 an adjustable device was used

Limitations

- Low number of patients
- Not randomized
- Use of 2 different cortical fixations
- Not all the “collisions” are the same

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Conclusions

The collision between the femoral tunnels of the ACL and the LET may increase the risk of ACL failure.

The risk may be more relevant when an adjustable cortical fixation device is used.

perelli.simone@gmail.com