

# DOUBLE BUNDLE ACL REVISION RECONSTRUCTION WITH ALLOGRAFT RESULTED IN A LOW REVISION RATE AT 10 YEAR

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# DISCLOSURE

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# AIMS

**TO ASSESS THE LONG-TERM SECOND REVISION RATE AND  
SUBJECTIVE CLINICAL OUTCOMES FROM A COHORT OF  
PATIENTS WHO UNDERWENT A DOUBLE-BUNDLE (DB) ACLR  
REVISION WITH ALLOGRAFT.**



# METHODS - CRITERIA

## RETROSPECTIVE COHORT EVALUATION

### INCLUSION CRITERIA

- DB-ACL REVISION WITH ACHILLE'S TENDON ALLOGRAFT
- SURGERY BETWEEN 2000 AND 2012
- AGE AT REVISION  $\geq 18$

### EXCLUSION CRITERIA

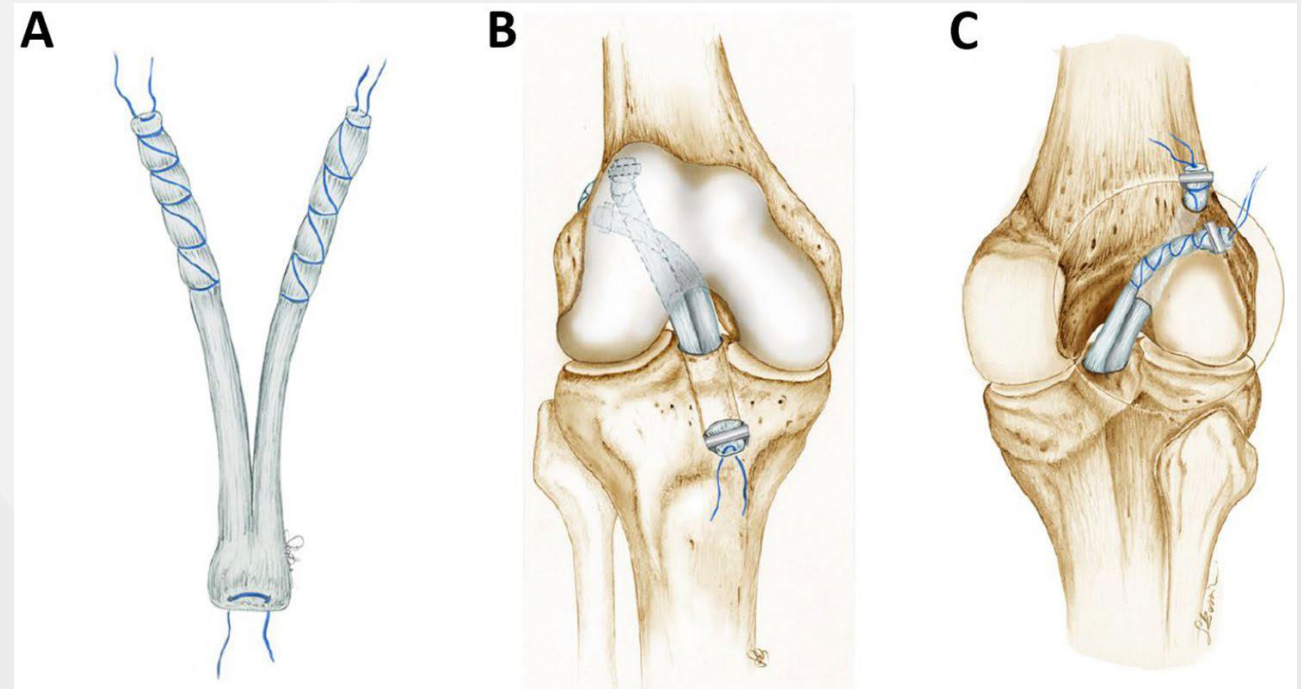
- SECOND OR MORE ACL REVISION
- PRIMARY ACL RECONSTRUCTION WITH ALLOGRAFTS
- MULTI-LIGAMENT RECONSTRUCTIONS WITH ALLOGRAFTS



# METHODS – SURGICAL TECHNIQUE

## FRESH-FROZEN NON-IRRADIATED ACHILLES TENDON ALLOGRAFT

- TWO SEPARATE BUNDLES SUTURED INDEPENDENTLY ATTACHED TO THE BONE PLUG.
- GRAFT FIXED DISTALLY TO THE TIBIAL CORTEX WITH A STAPLE.
- FEMORAL TUNNEL FIXATION FOR PL BUNDLE
- AM BUNDLE TO THE OVER-THE-TOP POSITION WITH STAPLES.





# **METHODS – PATIENTS' EVALUATION**

## **ONLINE SURVEY PLATFORM:**

- **DATE OF SURGERIES**
- **SURGICAL DATA**
- **DATE OF GRAFT FAILURE AND SUBSEQUENT SECOND ACL REVISION SURGERY**
- **ANY OTHER SURGERY OF THE INDEX KNEE**
- **CONTRALATERAL ACLR**
- **KOOS SCORE**
- **TEGNER SCORES**



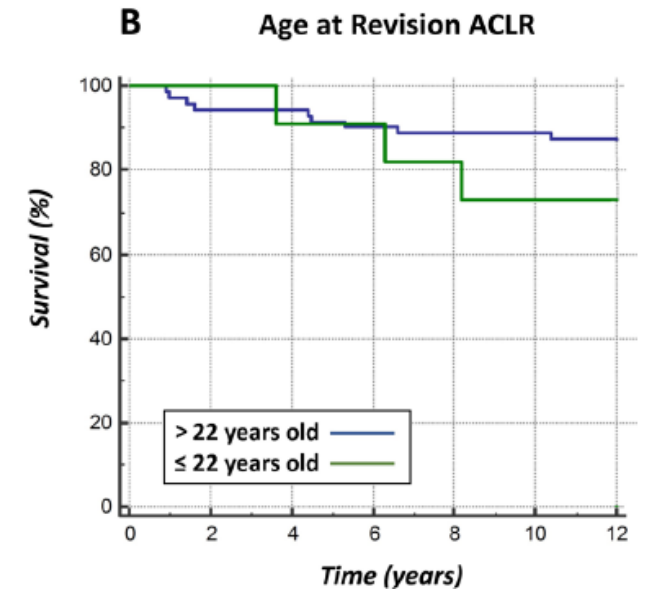
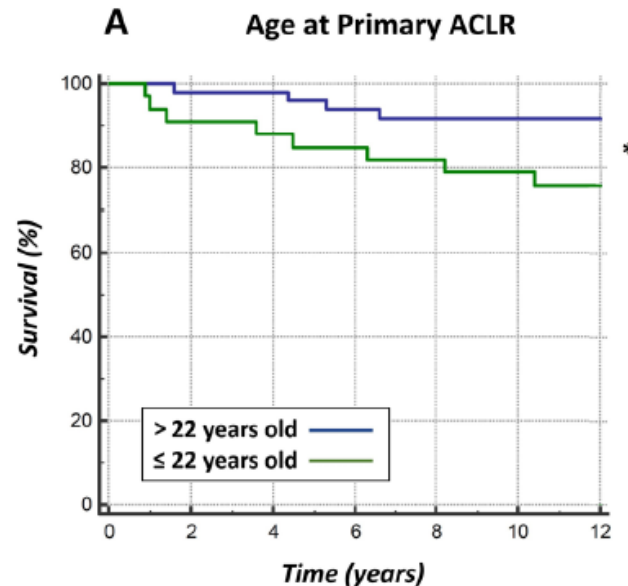
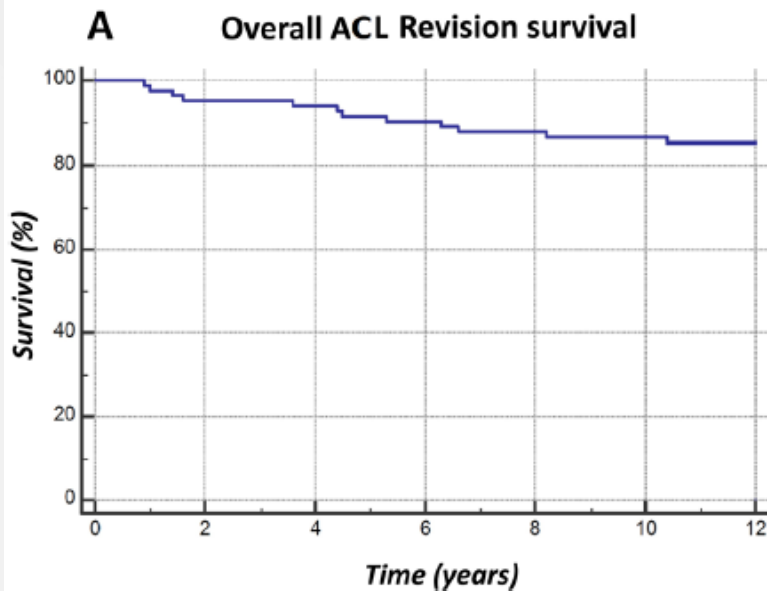
# RESULTS – SURVIVORSHIP

**81 INCLUDED PATIENTS**  $4.5 \pm 3$  Y MEAN FU, 10 Y FINAL FU

12 SECOND ACL REVISIONS (3 FEMALES AND 9 MALES).

SURVIVAL RATES : 68% FOR ALL REOPERATIONS, 85% FOR A SECOND REVISION

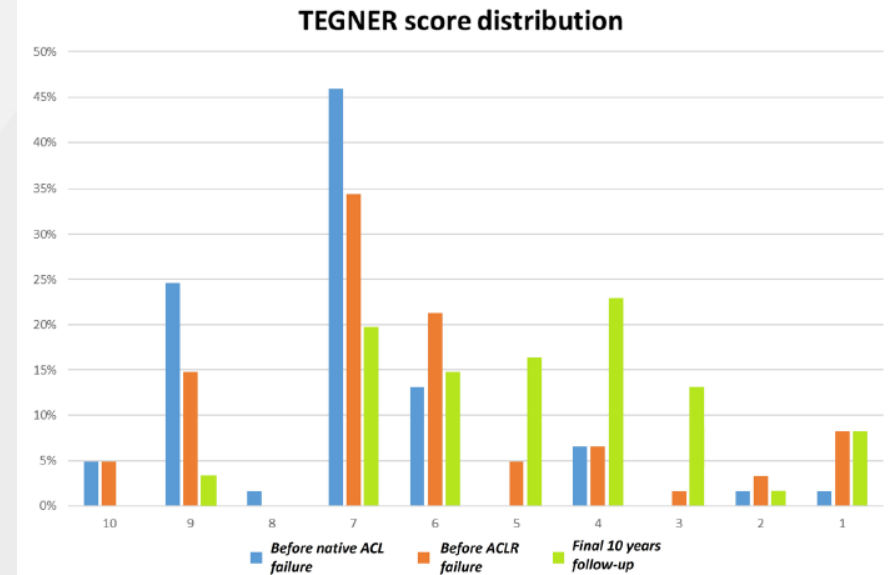
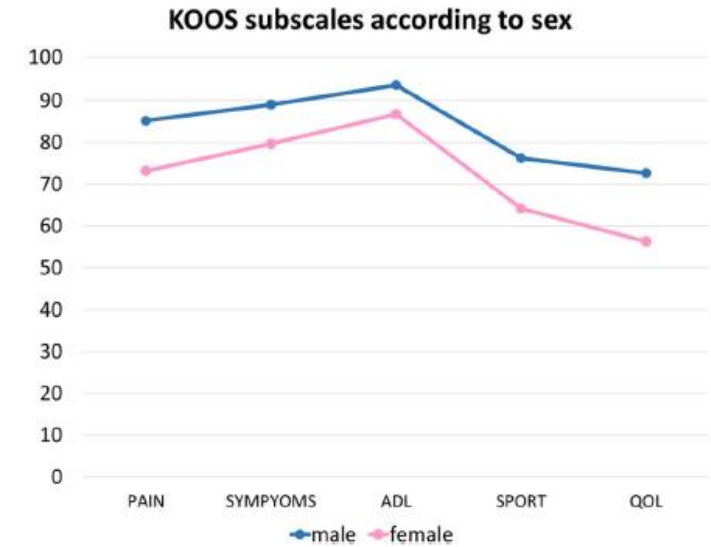
SIGNIFICANTLY INCREASED RISK OF FAILURE FOR YOUNGER PATIENTS AT TIME OF PRIMARY ACLR (  $>22 \leq 22$  yo)



# RESULTS – KOOS and TEGNER

## FINAL FU

- **KOOS SUBSCALES** PAIN  $84 \pm 15.5$ ; SYMPTOMS  $88.1 \pm 13.6$ ; ADL  $93 \pm 11.6$ ; SPORT  $75 \pm 24.5$ ; QOL  $71 \pm 19.6$ .
- **29 (48%) PATIENTS PERFORMED SPORTS ACTIVITY AT THE SAME LEVEL AS BEFORE ACLR FAILURE**





# CONCLUSIONS

## DOUBLE-BUNDLE ACL REVISION WITH FRESH-FROZEN ACHILLES ALLOGRAFT SHOWED SATISFACTORY RESULTS:

- 85% SURVIVAL RATE FROM A SECOND ACL
- YOUNGER > RISK OF UNDERGOING A SECOND ACL REVISION
- GOOD PATIENT-REPORTED CLINICAL SCORES
- SPORT AT THE SAME LEVEL OF THE FIRST ACL RECONSTRUCTION AT FINAL FU (48%)



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***Thank you***

Dott. Alberto Grassi