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Higher Rates of Chondral and Meniscal Injuries in Second Versus First Revision Anterior Cruciate Ligament Reconstruction

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Abstract #24050

Conflict of interest

Nothing to disclose

Introduction

Re-Revision of ACL reconstruction

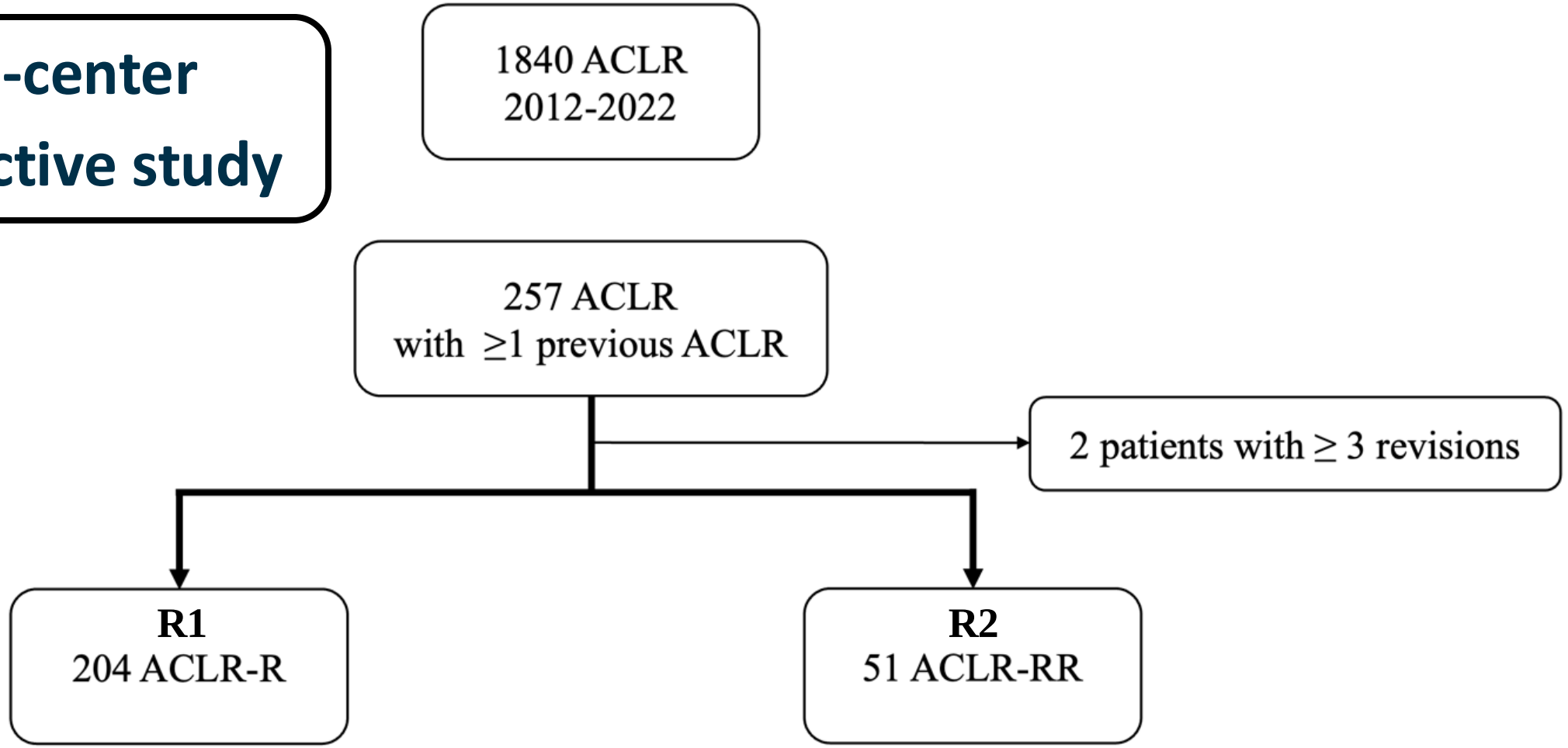
- Failure rate of 25%[1,2]
- More chondral lesion (medial and lateral compartment)[1,2]
- More medial meniscal tears[1,2]

Aims

⇒To describe the prevalence of **meniscal and chondral** lesions in patients undergoing a single revision ACL reconstruction versus those undergoing second ACL revision reconstruction.

Methods

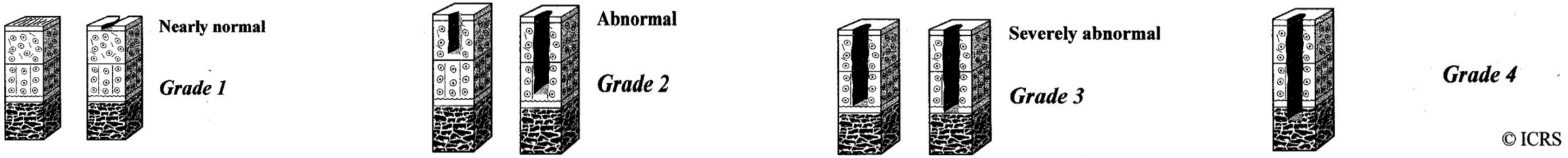
Single-center retrospective study



Methods

⇒ **Systematic assessment of the cartilage and menisci**

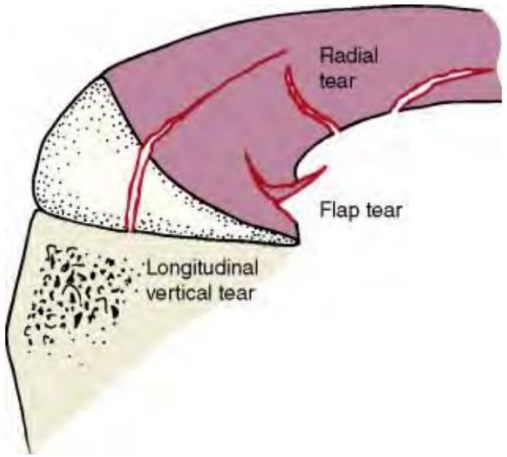
Chondral lesions: ICRS classification[3]



Meniscus tears: Isakos classification[4]

Horizontal

Longitudinal



Results

1. Demographics:

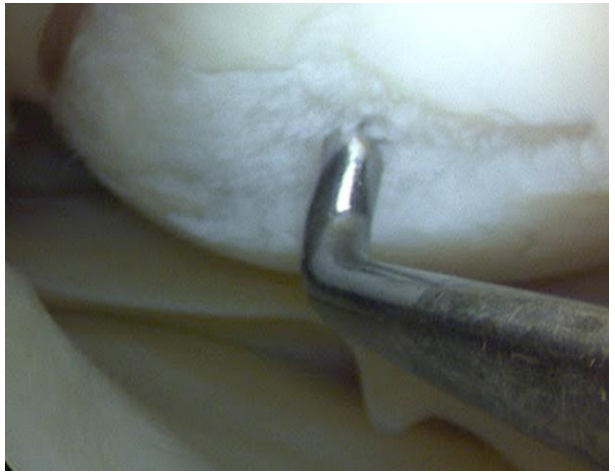
	R1 group (n=204)	R2 group (n=51)	p-value
Age (mean±SD)	32.73 ± 9.83	30.44 ± 9.9	0.086
Gender (M) (%)	140 (68.6%)	30 (58.8%)	0.245
BMI (Kg/m^2) (median±IQR)	24.4 ± 2.9	24.2 ± 3.4	0.595
Previous graft used for ACL reconstruction n (%)			
BTB	158 (77.5)	33 (64.7)	0.065
Hamstring	33 (16.1)	10 (19.6)	
QT	13 (6.4)	8 (15.7)	

Results

2. Chondral injury:

Chondral lesions R1

n = 97 (47.6%)



Chondral lesions R2

n = 33 (64.7%)

p=0.045

Results

2. Chondral injury:

Medial Compartment:

- **Chondral lesions R1 (36.3%)**
- **Chondral lesion R2 (56.9%)**

Lateral Compartment:

- **Chondral lesions R1 (17.6%)** ***p=0.001***
- **Chondral lesions R2 (39.2%)** ***p=0.012***

Results

3. Meniscal tear:

- **More meniscal tears in R2 group (84.3%) vs R1 group (64.7%) (p=0.009).**

- **<u>Incidence of medial meniscal tears:</u> p<0.001**
  - **R1 group (51.9%)**
  - **R2 group (78.4%)**

	R1 group (n=204)	R2 group (n=51)	p-value
Meniscal tears n (%)	132 (64.7)	43 (84.3)	0.009
Medial	106 (51.9)	40 (78.4)	<0.001
Lateral	58 (28.4)	9 (17.6)	0.447

Limitation

- Retrospective study
- MRI data were not available
- Data on chondral status before revision not available

Conclusion

- Higher rate of chondral lesions and meniscal tears for second ACL revision reconstruction vs single ACL revision reconstruction (50-85% of cases)

- More medial and lateral compartment chondral lesions for second vs single ACL revision reconstruction
- With 3x higher rate in the lateral compartment

References

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