Isolated Lateral Collateral Ligament Injuries in Elite Athletes do not need Surgery

Haslhofer DJ, Jaggard MKJ, Abdul W, Jones M, Mitchell A, Lee J, Ball SV, Williams A

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Affiliations

- Fortius Clinic London, UK
- Department for Orthopaedics and Traumatology, Kepler University Hospital Linz, Austria

Disclosures

- AW - Shares / stock in Innovate Orthopaedics, DocComs. Editorial Board Member AJSM. Smith and Nephew: research funding; part-funding salary clinical fellow; lecture fees
- SVB - Smith and Nephew: research funding; part-funding salary clinical fellow

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PLC Injuries

- usually an absolute indication for repair +/- reconstruction – irrespective of which components are injured
- approximately 16% of all knee ligament injuries (LaPrade et al. 2004; Nannaparaju et al. 2018)

** PLC – posterolateral corner*

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isolated LCL Injuries

- approximately 1.1% of all knee ligament injuries (Majewski et al. 2006)
- varus and/or hyperextension trauma (Amis et al. 2003)

** LCL – lateral collateral ligament*

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Purpose/Hypothesis

- outcome evaluation of non-operative treatment of isolated LCL injuries in elite athletes
  reflected by RTP, performance level, playing rates at 2 and 5 years

- Hypothesis - *clinical and radiological grading of LCL injuries do not correlate*

** LCL - lateral collateral ligament, RTP – return to play*

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Material and Methods

- consecutive series of elite athletes with isolated LCL injuries treated by 2 sports knee surgeons between 2015 and 2022

- collected data
  - clinical examination findings
  - radiological findings
  - RTP times
  - performance levels
  - subsequent career longevity

** LCL – lateral collateral ligament, RTP – return to play*

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Non-operative Treatment

- Grade I clinical LCL laxity
  - no brace + full weight bearing

- Grade II or III clinical LCL laxity
  - hinge range of motion brace set to block terminal 30° of extension + touch weight bearing for *2 weeks*
  - extension to 0° + full weight bearing for *2 weeks*
  - free ROM for *2 weeks*

** LCL – lateral collateral ligament, ROM – range of motion*

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Results I

- 55 elite athletes
- mean age – 24.3a (± 4.5a)
- 2 female athletes (3.6%)
- sports
  - soccer/football – 44 (80%)
  - rugby – 10 (18.2%)
  - other – 1 (1.8%)
- mean follow-up – 5.3a (2-9a)

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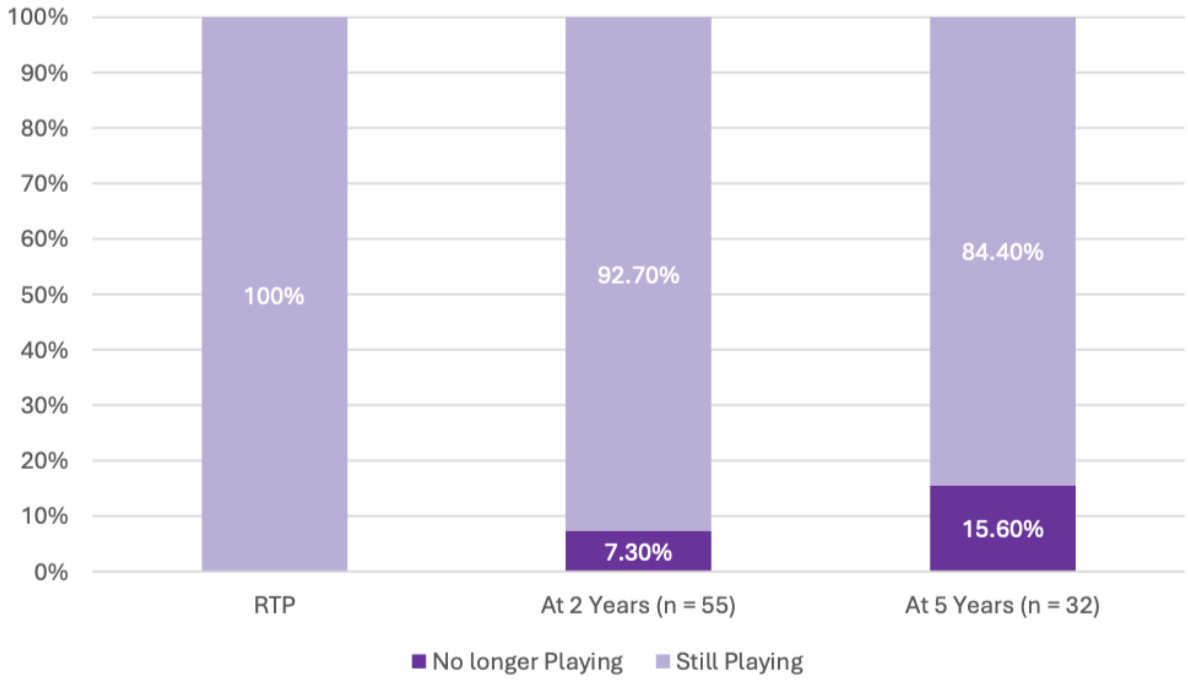
Results II

- 100% RTP at a mean of 96.8 (±75.6) days at pre-injury level

RTP and playing rates at 2 and 5 years



** RTP – return to play*

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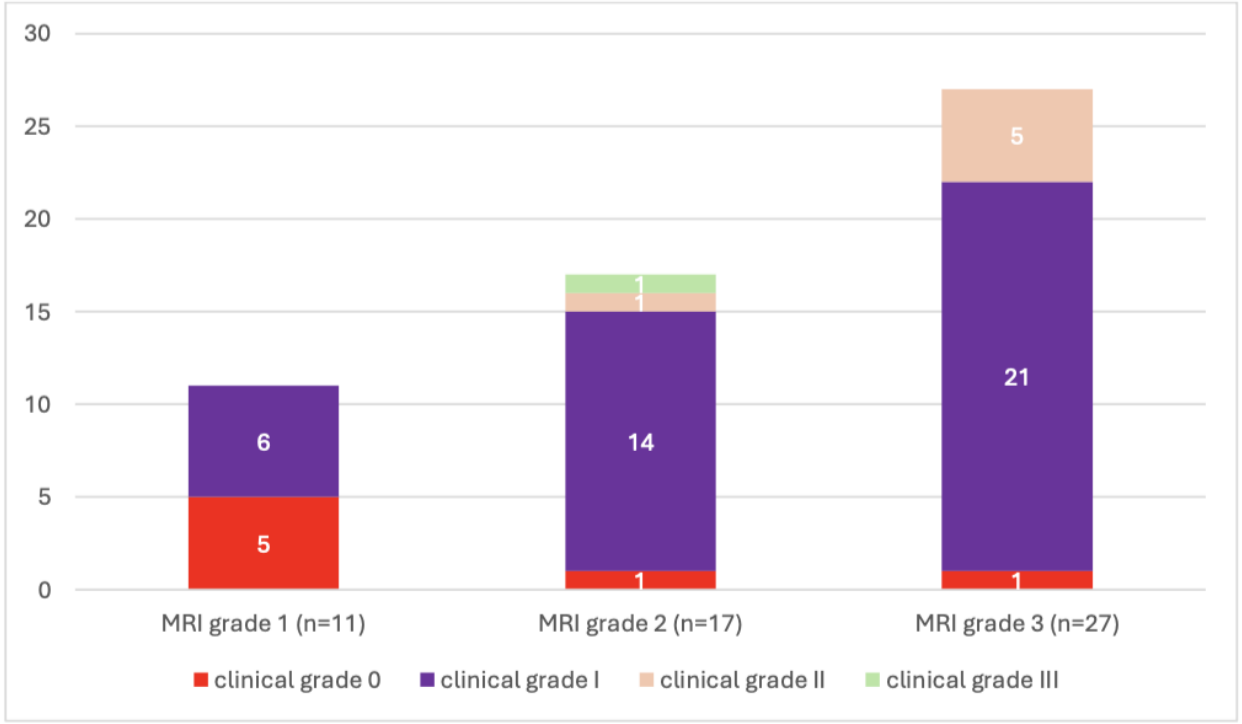
Results III

- low correlation
  - r=0.37
  - p=0.01

Correlation MRI and clinical examination grading



** MRI – magnetic resonance imaging*

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Conclusion

- truly isolated LCL injuries, including high grade lesions seen in MRI, managed with non-operative treatment are associated with excellent outcomes in elite athletes
- 100% RTP at the pre-injury level and preserved career longevity
- low correlation of MRI grade and clinical examination grading

** LCL – lateral collateral ligament, MRI – magnetic resonance imaging, RTP – return to play*

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