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The Dejour Classification for Trochlear Dysplasia: Are We Speaking the Same Language?

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Faculty Disclosure Information

- Juan Pablo Martinez-Cano:
  - Editorial or Governing board of Arthroscopy, Video Journal of sports medicine
  - Board of Directors member for Sociedad Colombiana de Ortopedia y Traumatología
- María Tuca
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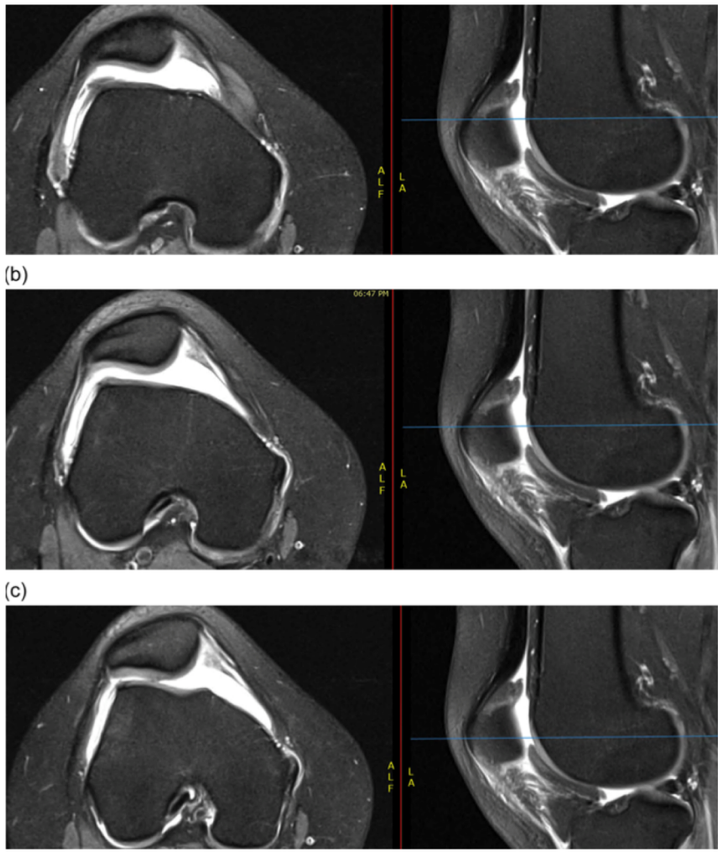
Introduction

- Trochlear dysplasia is one of the principal risk factors for recurrent patellar dislocation
- The Dejour classification includes four categories to classify trochlear dysplasia
- It is important to know **how reliable is a classification between observers**
- The objective of this study is to evaluate the inter- and intraobserver reliability of the **Dejour classification** for trochlear dysplasia.

Methods



- Cross-sectional, reliability study
- 28 examiners from the International Patellofemoral Study Group (IPSG) 2022 meeting evaluated **lateral radiographs** of the knee and **axial magnetic resonance images** from 15 cases of patients with patellofemoral instability that had trochlear dysplasia

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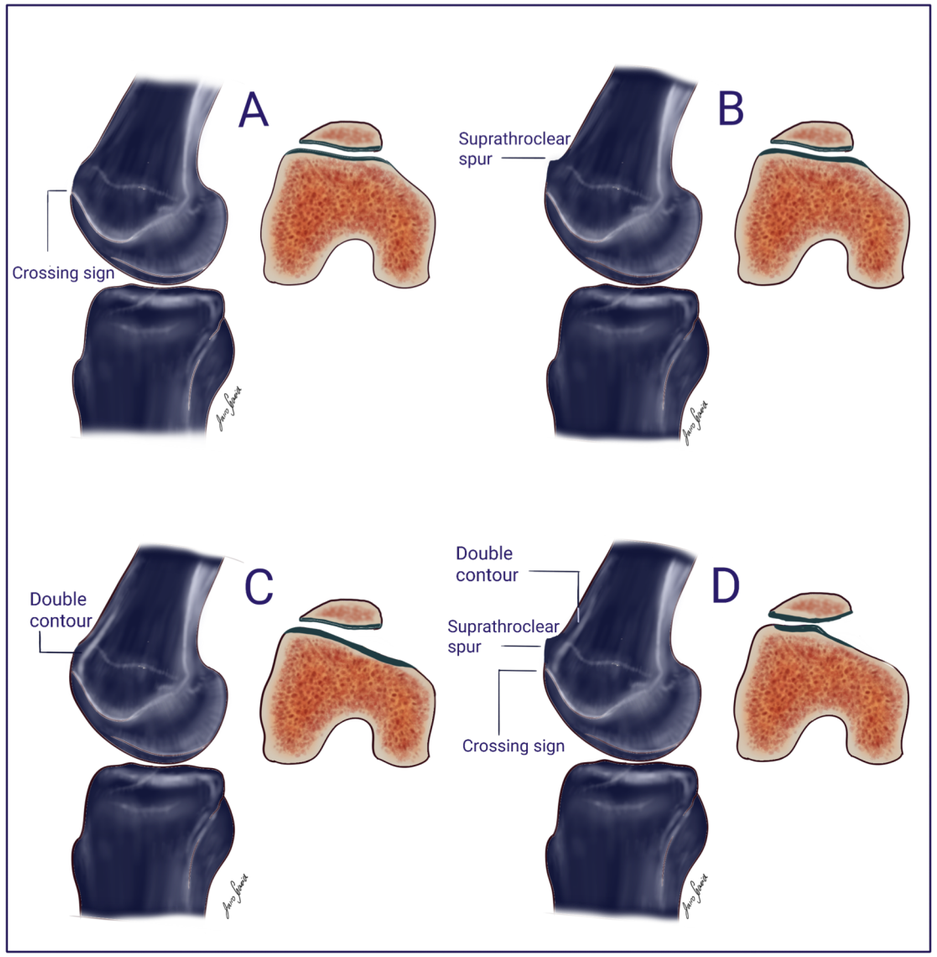
Methods

- Each observer classified each case according to Dejour's classification for trochlear dysplasia (A–D)



Methods

- There were three rounds: one with only computed radiograph (CR), one with only magnetic resonance imaging (MRI) and one with both
- Inter- and intraobserver reliability were calculated using kappa coefficient (0–1)

- Kappa interpretation was as follows: 0–0.2 = slight; 0.21–0.4 = fair; 0.41–0.6 = moderate; 0.61–0.8 = substantial; and 0.81–1 = almost perfect

Results

- The mean age of patients was: 14.6 years; 60% were female and 53% had open physis.

TABLE 1 Intraobserver reliability for the Dejour classification in the different rounds.

Round	Imaging	Cohen's κ	95% CI
1	CR	0.45	0.38–0.51
2	MRI	0.44	0.36–0.51
3	CR and MRI	0.65	0.57–0.74

Abbreviations: CI, confidence interval; CR, radiographs; MRI, magnetic resonance imaging.

TABLE 2 Interobserver reliability for the Dejour classification in the different rounds.

Round	Imaging	Fleiss' κ	95% CI
1	CR	0.20	0.18–0.21
2	MRI	0.13	0.11–0.14
3	CR and MRI	0.12	0.11–0.13

Abbreviations: CI, confidence interval; CR, radiographs; MRI, magnetic resonance imaging.

Conclusion

- The Dejour classification for trochlear dysplasia showed **slight interobserver reliability** and **substantial intraobserver reliability** among patellofemoral surgeons
- This suggests that raters have substantial chances of been consistent with themselves when using both radiographs and magnetic resonance imaging for evaluating trochlear dysplasia
- While there is a different way of understanding the classification between them
- Further effort should be directed to improve the way in which the imaging signs of trochlear dysplasia and the Dejour classification are understood by the medical community.

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