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Cephalic Laxity of the Posterior Root of Lateral Meniscus (CLPRLM) Classification Associated With Other Arthroscopic Signs of Lateral Meniscus Hypermobility

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Faculty Disclosure Information

Nothing to disclosure



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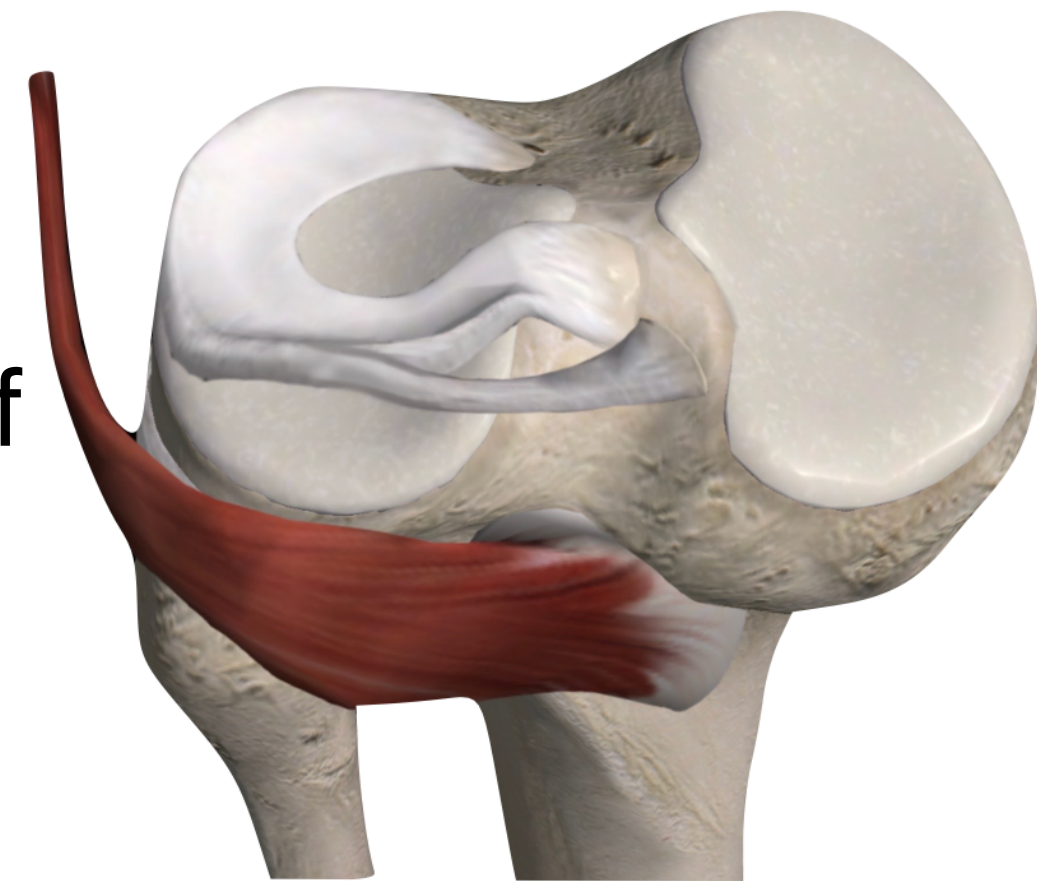
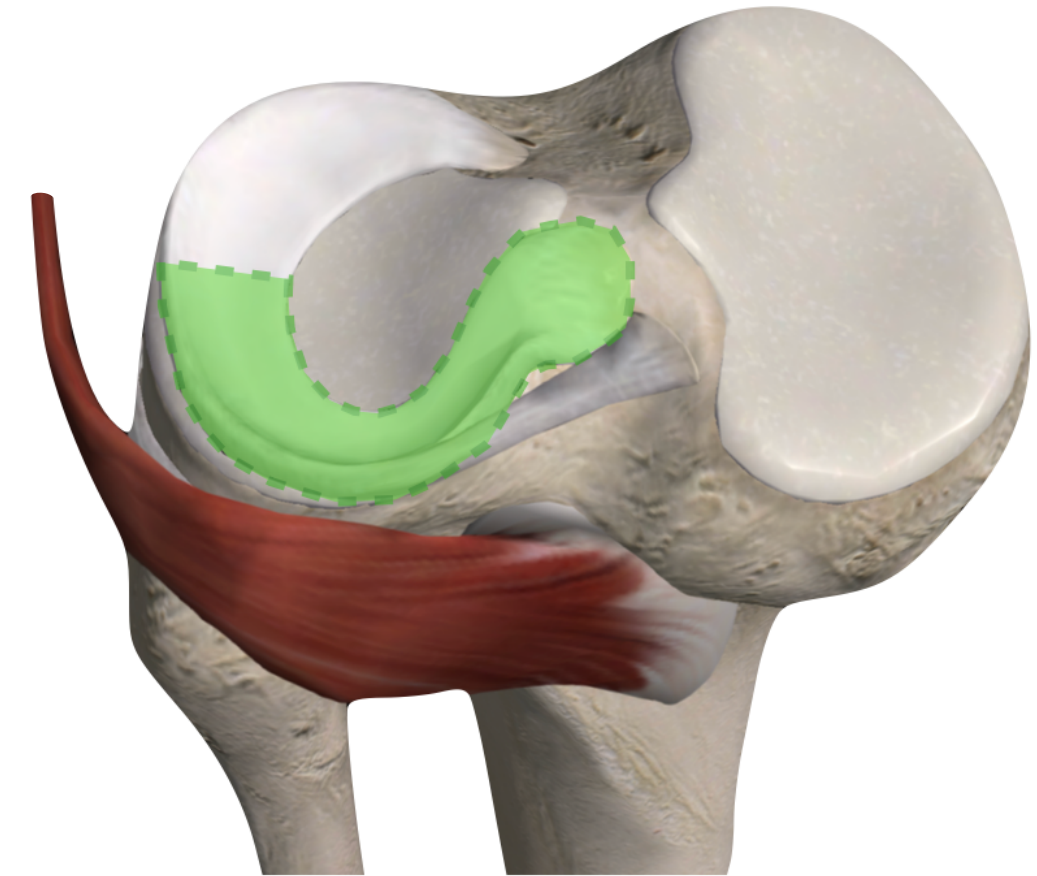


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Introduction

- The lateral meniscus (**LM**) **greater mobility** due to the lack of meniscocapsular insertions.
- Lateral meniscus hypermobility (**LMH**) **excessive anterior translation** of the posterior horn (PHLM).
- Different causes.
- Causing knee pain and locking, particularly during kneeling.
- **Elongation of the root** after a trauma causes **cephalic laxity** of the posterior root of the lateral meniscus (CLPRLM) without detachment.



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Objective

- **Arthroscopic tests:** Aspiration and traction test.
- Explore the **cephalic laxity** of the posterior root of the lateral meniscus **as an arthroscopic sign** of meniscal hypermobility.
- To assess whether the **degree** of cephalic laxity **correlates** with lateral meniscus hypermobility and to determine its potential as an arthroscopic diagnostic sign for HLM.

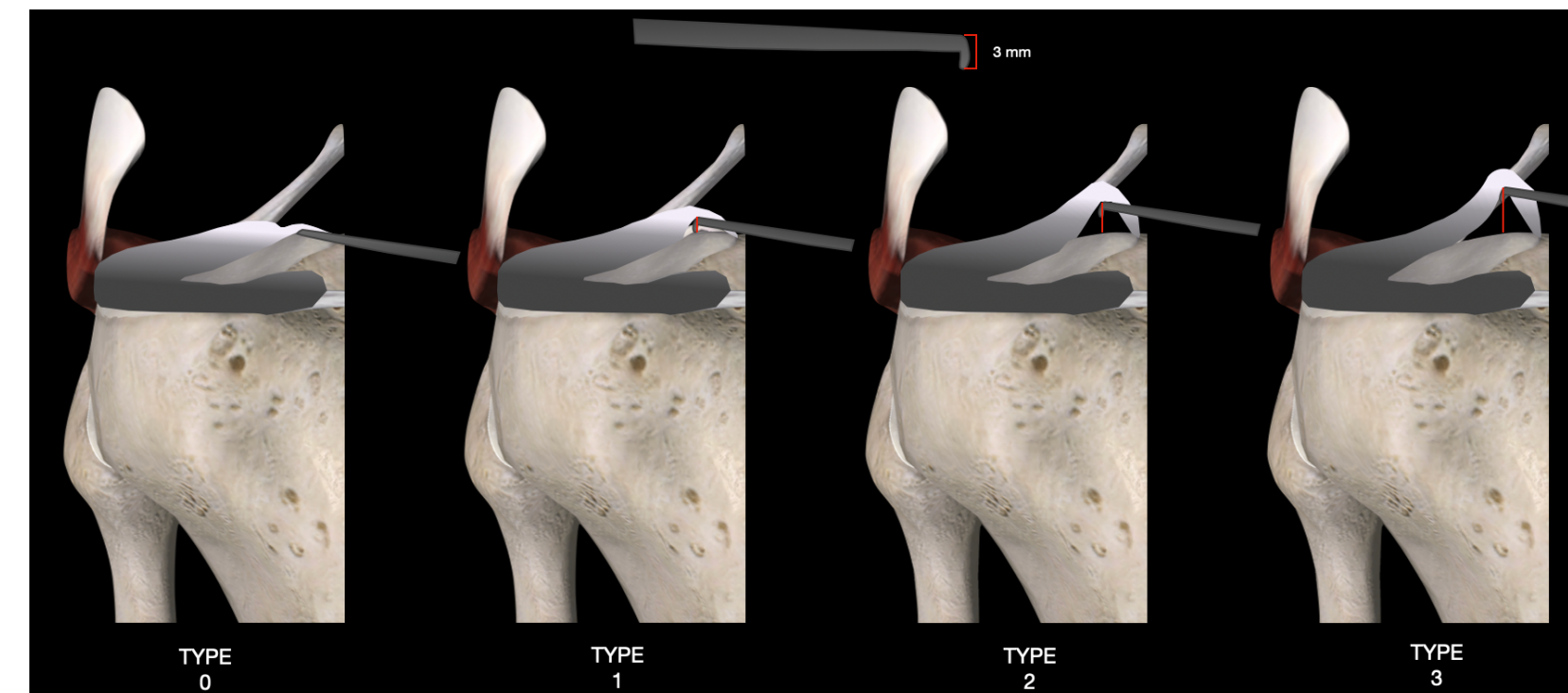


Figure 4. Classification cephalic laxity of the posterior root of the lateral meniscus (CLPRLM).
Type 0: The root is not raised.
Type 1: Elevation of the root similar to the size of the palpator tip (3mm), without disinsertion.
Type 2: Elevation of the root twice the tip of the palpation (6mm), without disinsertion.
Type 3: Elevation of the root three times the tip of the palpation (9mm), without disinsertion.

Methods

- This observational descriptive case series study.
- **Inclusion criteria:** patients undergoing knee arthroscopy.
- **Excluding criteria:** evident posterior root injury, unstable meniscal tears, diffuse grade IV Outerbridge chondropathy of the lateral compartment, and posterolateral corner injuries.



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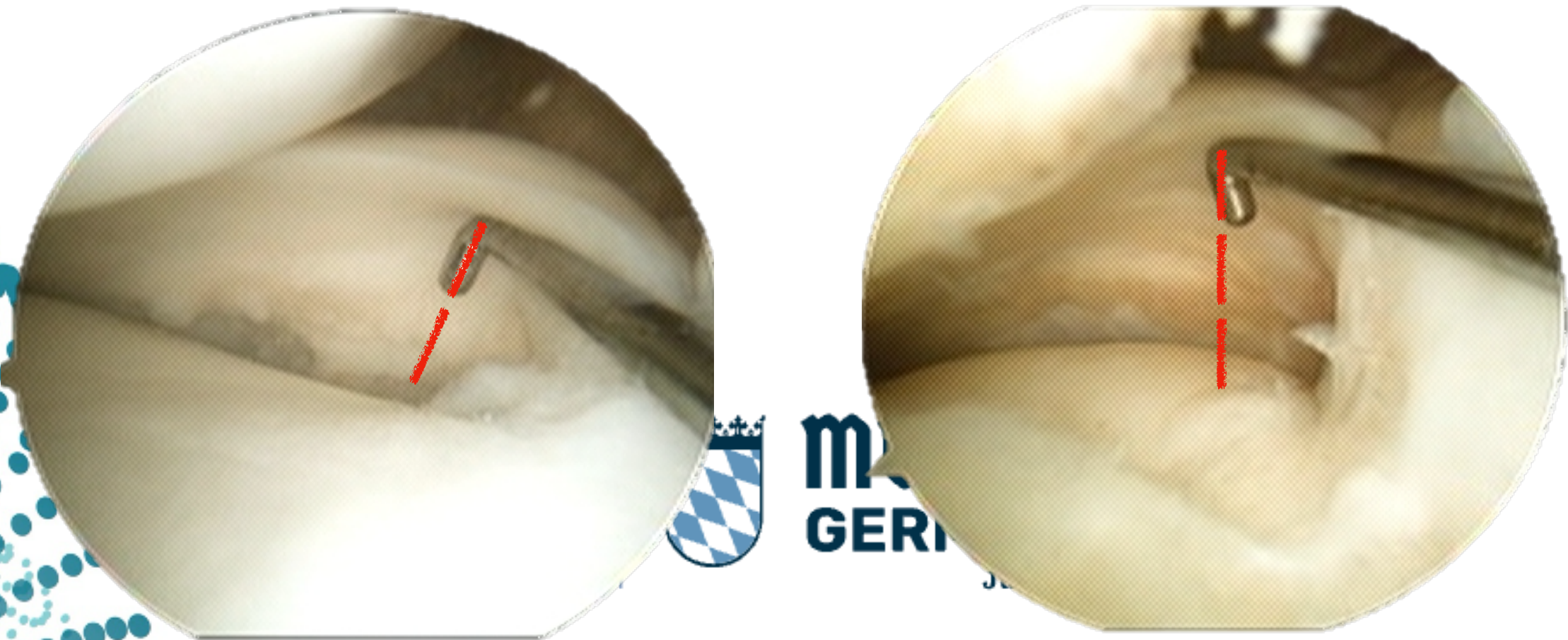


Results

- 106 patients (57% male, 43% female; average age 38.9 years)
- Positive aspiration test: associated with grade 2 and grade 3 laxity, with probabilities of 41% and 55%, respectively.

Table 1. Average age, weight and height of the 106 patients.			
	Age	Weight	Height
Media	38,9	74,7	168,11

Table 2. Association of positive aspiration test (Asp+) with the types of cephalic laxity		
Probability	%	Pearson
Asp+/ Type 0	0,00	-0,33
Asp+/ Type 1	0,05	-0,58
Asp+/ Type 2	0,41	0,32
Asp+/ Type 3	0,55	0,59



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Results

- Positive traction test: associated with grade 2 or grade 3 laxity, with probabilities of 45% and 55%, respectively.
- Combining both tests: there is a 42% probability of a grade 2 injury and a 58% probability of a grade 3 injury.

Table 3. Positive tensile test (Trac+) association with the types of cephalic laxity		
Probability	%	Pearson
Trac+/Type 0	0,00	-0,30
Trac+/Type 1	0,00	-0,61
Trac+/Type 2	0,45	0,37
Trac+/Type 3	0,55	0,55

Table 4. Association of positive aspiration and traction tests (Asp+ - Trac+) with the types of cephalic laxity		
Probability	%	Pearson
Asp+ - Trac+/Type 0	0,00	-0,29
Asp+ - Trac+/Type 1	0,00	-0,58
Asp+ - Trac+/Type 2	0,42	0,31
Asp+ - Trac+/Type 3	0,58	0,58

Discussion

- (LMH) refers to the hypermobility of the **PHLM** causing its **subluxation** over the tibial plateau surface.
- **Diagnosis**, usually made by arthroscopic vision by performing **suction and traction tests**.
- If **both** traction and aspiration tests are **positive**, there is an **association** of 42% and 58% with grades **2 and 3 laxity**, respectively.
- Cephalic laxity of the posterior root of the lateral meniscus, can be considered an **additional sign** to assess lateral meniscus hypermobility.



Conclusions

- Statistically significant correlations between the aspiration and traction tests; when positive, they can be associated with a high degree of cephalic laxity.
- Indicating a high probability of advanced grade lesions according to the CLPRLM classification. The combination of both tests and a high degree of laxity significantly increases the need for surgical intervention
- The **classification** cephalic laxity of the posterior root of the lateral meniscus (CLPRLM) provides a reliable guide for surgical management.



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