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# Clinical Outcomes of Proximal Tibiofibular Joint Instability: Treatment Experiences in an Asian Population

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# Faculty Disclosure Information

- There is nothing to disclosure



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# Background & Study design

- PTFJ instability is rare but affects knee function
- This study analyzes the clinical outcomes of 46 patients treated for unilateral PTFJ instability between 2017 and 2021, with a minimum follow-up period of 24 months.
- The objective was to assess the effectiveness of conservative management and determine the necessity for surgical intervention.



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# Initial Treatment

- All patients initially underwent non-surgical treatment, including taping and bracing for three months with patient reported outcome recorded(KOOS and Cincinnati score)
- 21 patients (45%) continued to exhibit symptoms post initial treatment.
- These individuals were subjected to additional imaging through MRI and ultrasound, which confirmed persistent instability.
- Consequently, 21 patients received prolotherapy(Dextrose injection,20 %) at the PTFJ, administered once weekly for three sessions.



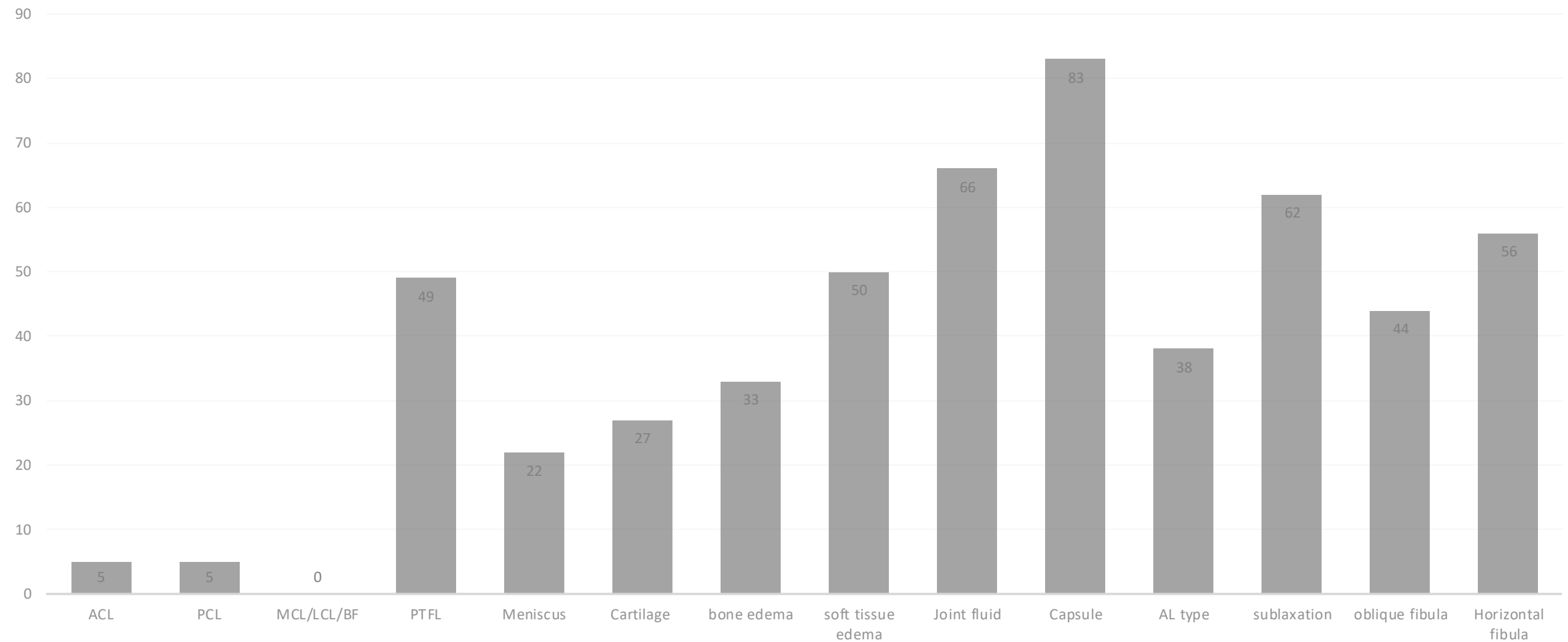
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# Image findings

MRI findings in unstable PTFJ(%)



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# Clinical outcomes

- At the three-month follow-up, 67% (12 of 18) of these patients received injections showed significant improvement and maintained stability without further intervention, with 3 patients lost of follow up.
- By the final follow-up at 24 months, 93% (43 of 46) completed follow-up.
- Marked improvement was found compared the pre-treatment and 2 year follow up, with KOOS scores increasing from  $71.47 \pm 8.67$  to  $94.23 \pm 3.38$  ( $p < 0.05$ ) and Cincinnati knee scores improving from  $66.11 \pm 12.17$  to  $92.11 \pm 4.32$  ( $p < 0.05$ ).

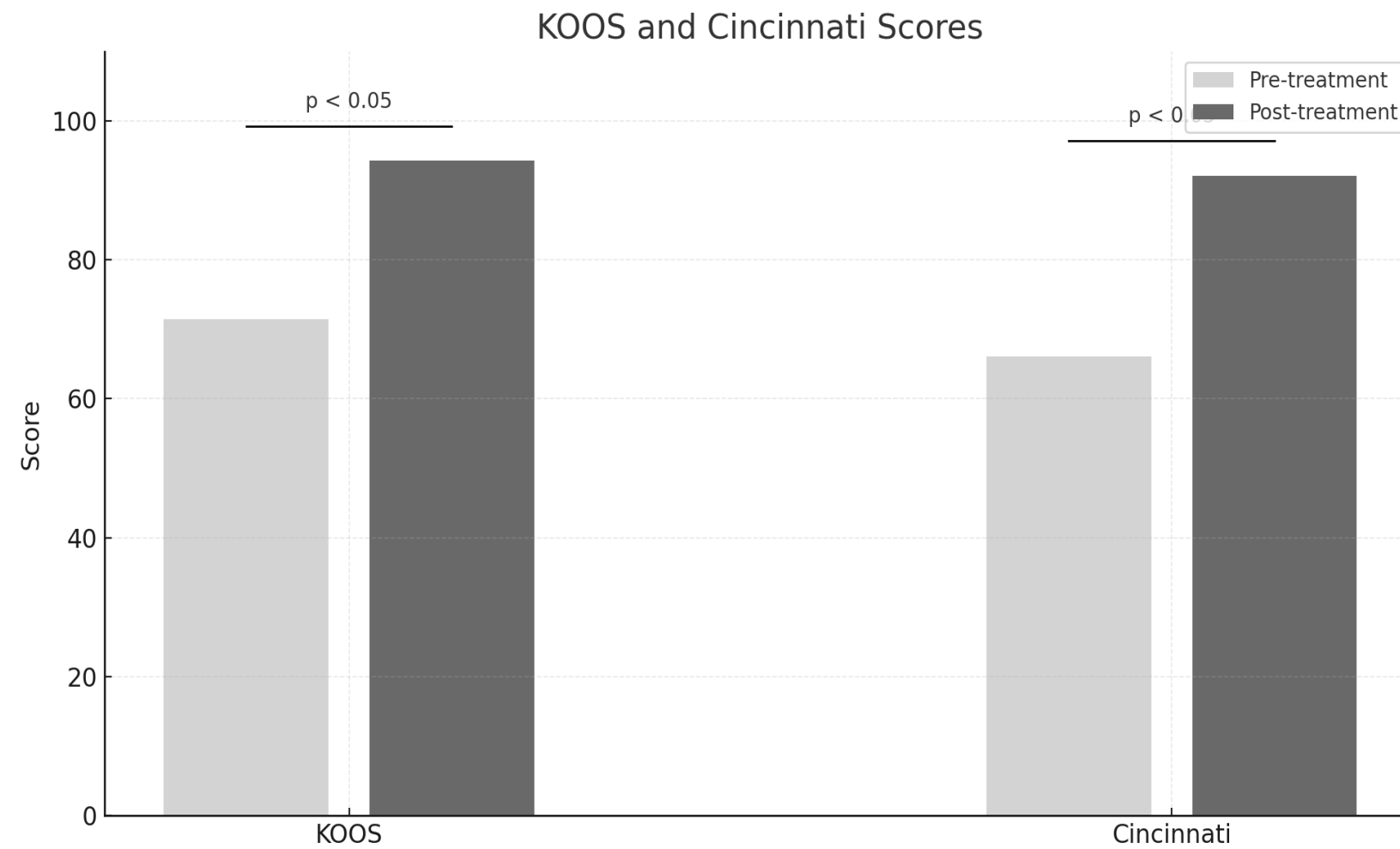


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# Clinical Outcomes



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# Treatment failures

- Three patients continued to experience instability and pain, with one undergoing surgical reconstruction and another requiring total knee arthroplasty (TKA), and one refuse further treatment, which illustrating the variability in treatment outcomes.



K-P	K-S	K-ADL	K-SPOR	K-QOL	CINCINATI
88.89	82.14	89.71	75	68.75	84
100	100	99	95	94	98

Patient received reconstruction of PTF ligament returned to sports in 6 months with good clinical outcome



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# Conclusion

- This study highlights the crucial role of accurate imaging in guiding treatment strategies for PTFJ instability.
- While prolotherapy was effective for the majority of patients, early identification of cases that may require surgical intervention is essential for achieving optimal outcomes.
- A personalized treatment approach, based on individual patient response and severity of instability, is vital for effectively managing this condition.



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