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Tibial Slope in Anterior Cruciate Ligament Deficient Knees does not affect the Incidence of Concomitant Ligamentous Injuries

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The authors have nothing to
disclose



INTRODUCTION



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- Increased posterior tibial slope (PTS) is a known risk factor for isolated anterior cruciate ligament (ACL) rupture
- Its impact on multi-ligamentous knee injuries is not well studied
- Aim: To determine if PTS is associated with multi-ligamentous knee injuries involving more than just the ACL



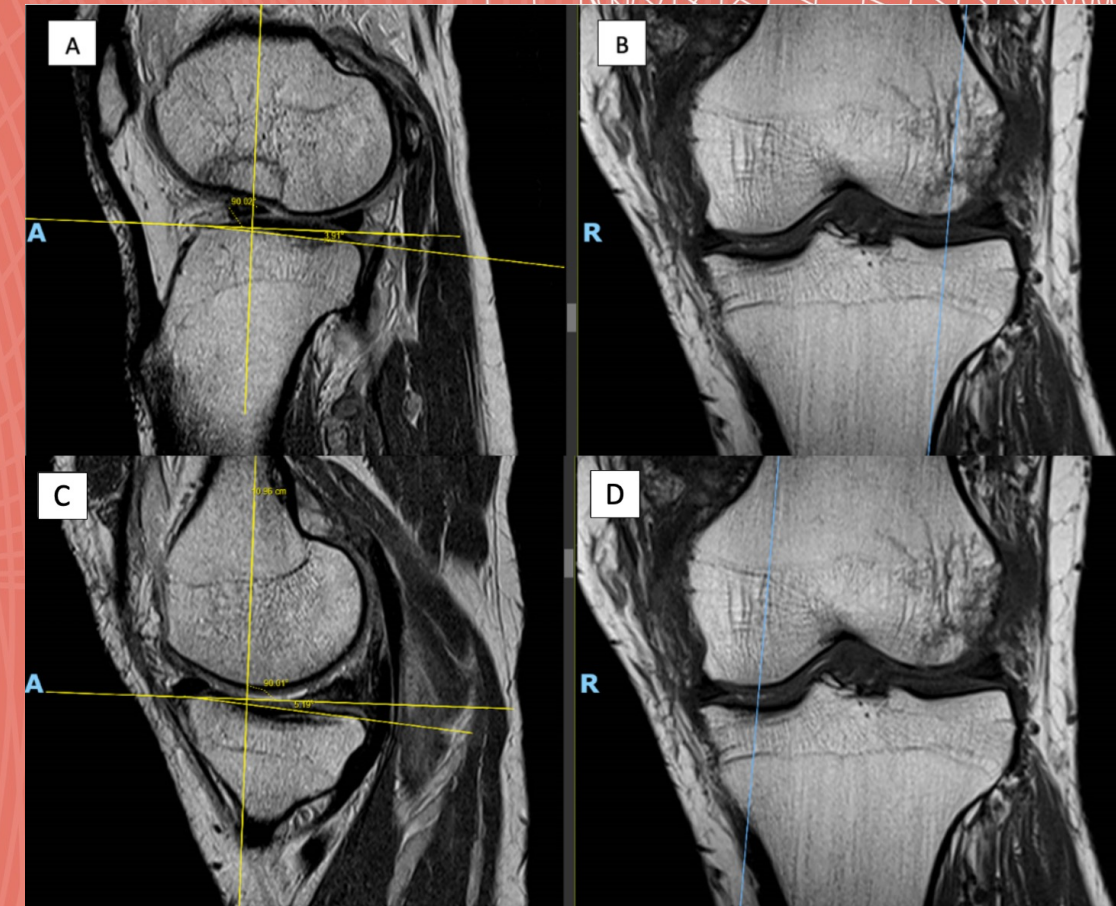
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METHODOLOGY

- Patients with ACL reconstruction \pm reconstruction of other ligaments were divided into 2 groups:
 - ACL – ACL injury only
 - ACL-plus – ACL injury with other concomitant ligamentous injuries
- Medial and lateral PTS of each knee were measured using MRI scans

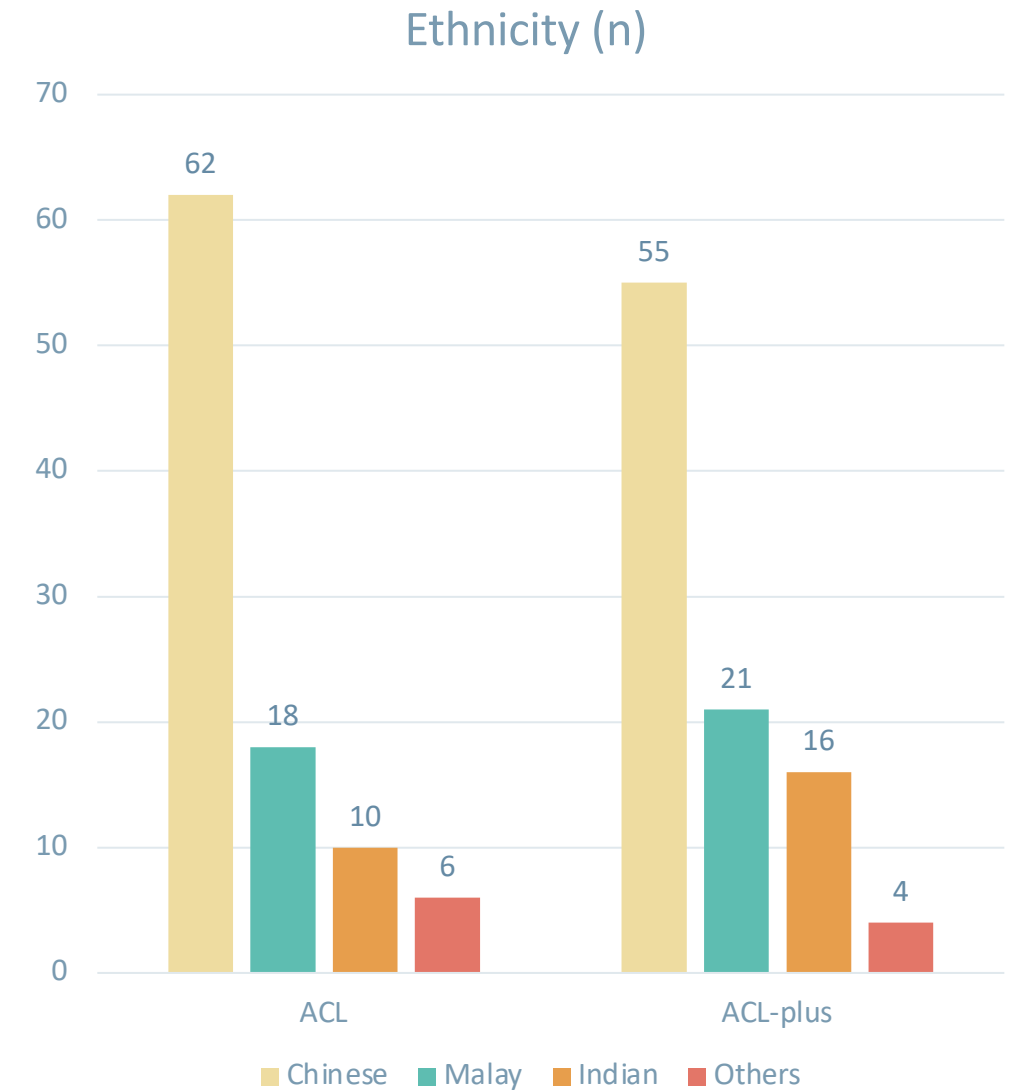
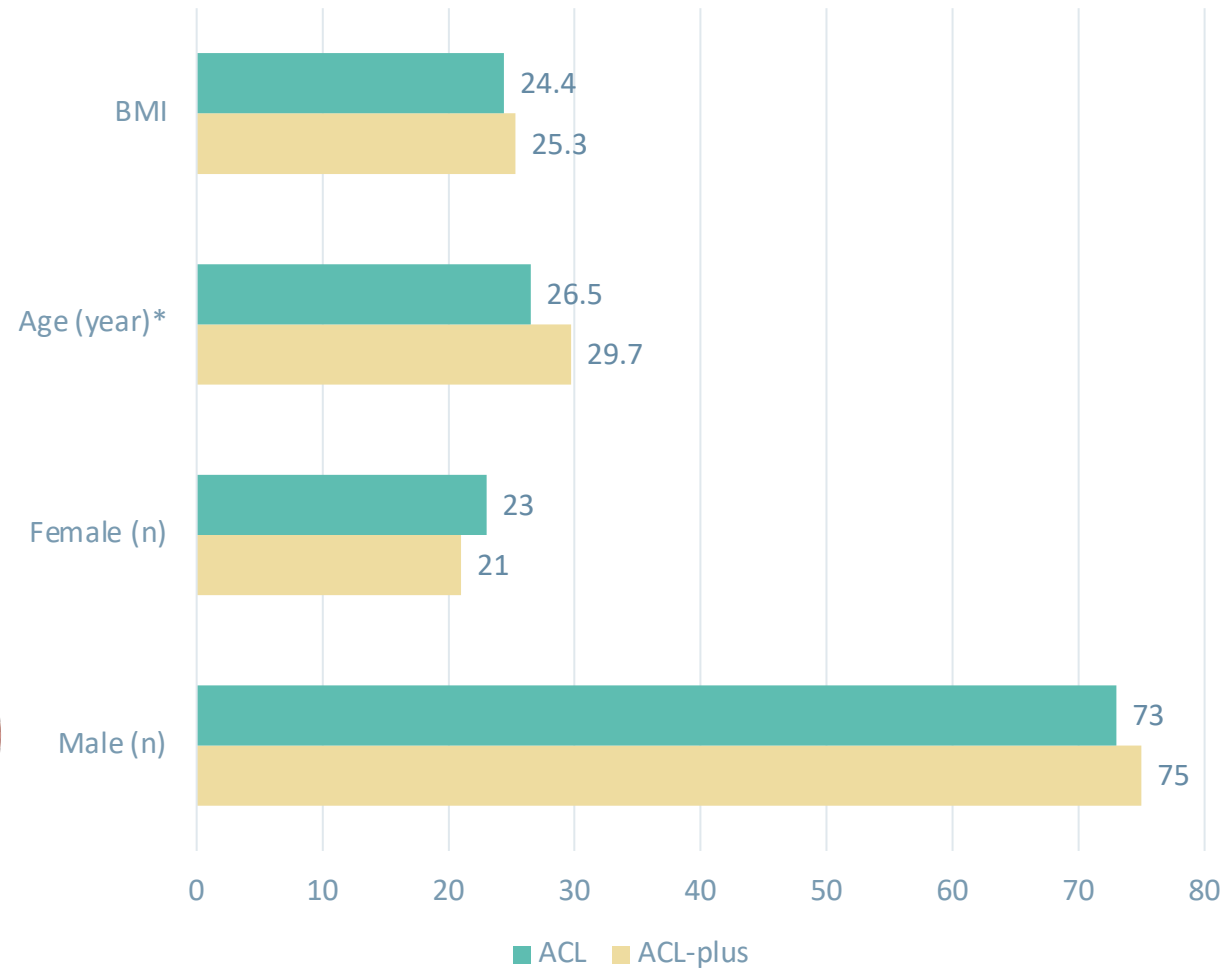


METHODOLOGY

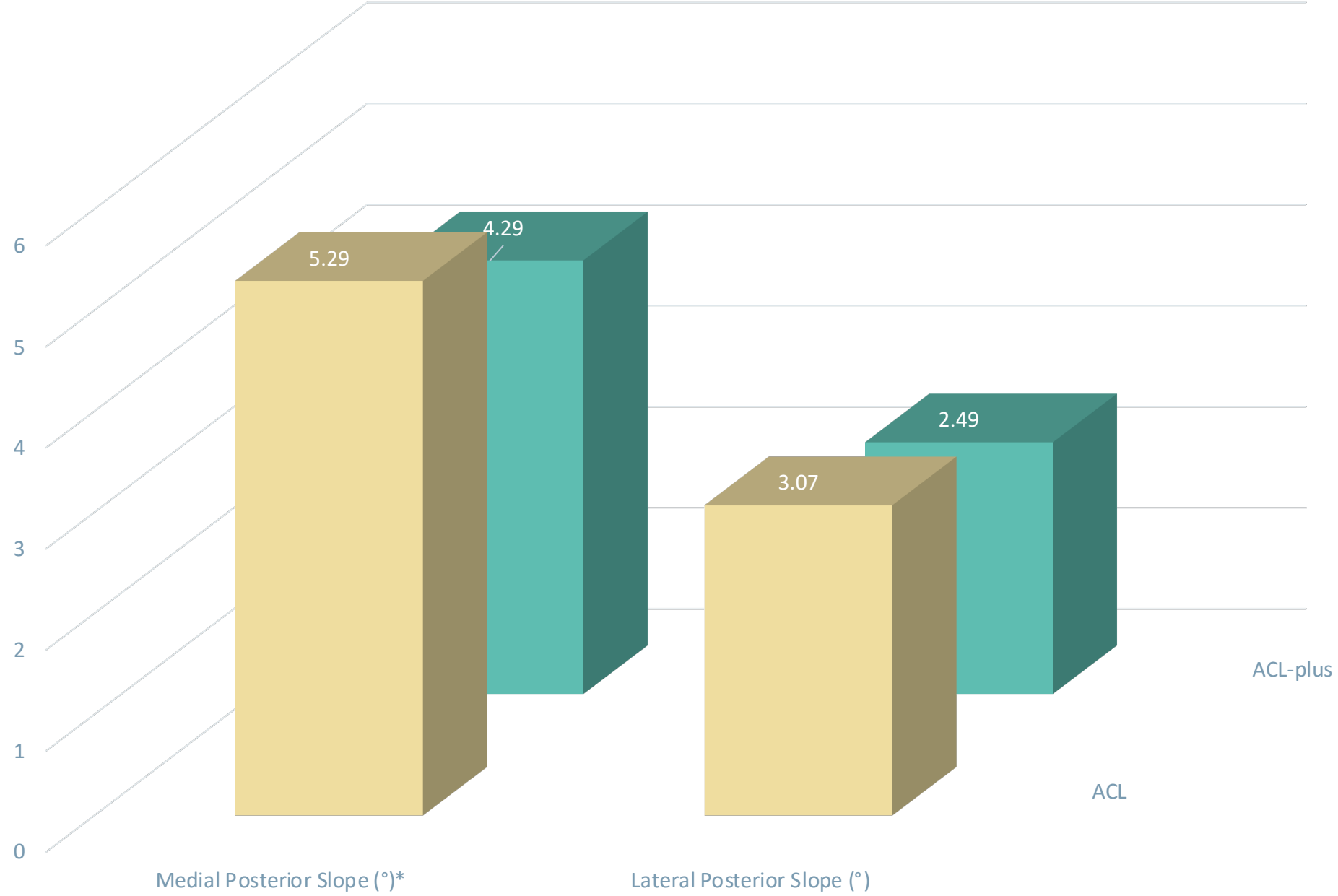
- Statistical analysis
 - Student's t-test was used to compare continuous variables
 - Pearson's chi-squared test was used to compare categorical variables
- Good inter-observer reliability (Cronbach's alpha) achieved
 - 0.875 for lateral PTS
 - 0.831 for medial PTS



Demographics



Medial and Lateral PTS



Discussion and Conclusion

- Patients in the ACL-plus group were older by an average of 3.2 years
 - Unlikely to be clinically significant → these injuries commonly occurs between the ages 14 to 35
- Mean medial PTS was 1° greater, i.e. more inclined, in Group ACL (p=0.044)
 - However, the difference of 1° is unlikely to result in clinical significance

Conclusion

- Patients in the ACL-plus group did not appear to have clinically significant differences in both medial and lateral PTS when compared to those in the ACL group



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