The Anterolateral Ligament of the Knee: An Inconsistent Finding in Pediatric Cadaveric Specimens

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Anterolateral Ligament (ALL)

- Ligamentous structure located at the anterior lateral aspect of the knee capsule
  - Prevents internal rotation
- ALL first described as “Segond’s pearly band” in 1879
- Other terms used to describe this structure
  - Anterior band of LCL, anterior oblique band, etc
Anterolateral Ligament

• Claes et al:
  – 41 adult cadaver knees evaluated for presence of ALL
  – ALL identified in 40/41
  – Courses from lateral femoral epicondyle to proximal tibia between fibular head and Gerdy’s tubercle
Purpose

• The purpose of the current study was to:
  – Evaluate pediatric cadaver knees for the presence of the anterolateral ligament
  – Compare these findings to previously published reports of the anterolateral ligament
Methods

• 8 skeletally immature cadaver knees
  – Ages: 3, 4 months; 1, 2, 3, 3, 8, 10 years
• 3 male, 5 female
• 7 right, 1 left
• Presence or absence of ALL evaluated by consensus in a group of fellowship trained pediatric orthopedic surgeons
Results

• ALL identified in only 1/8 specimens
  – 1 year-old female, right knee
• Located in anterolateral joint capsule
• Clearly identified with internal rotation of the knee
Conclusions

• ALL is previously described as a consistent structure in adult knees

• The ALL was identified inconsistently in pediatric cadaver knees
  – Anterolateral joint capsule of the knee
Conclusions

• Future research with a larger sample size should be conducted
• Unsure of the implications of ALL injury to anterior cruciate ligament reconstruction
• Future research should be done to assess the biomechanical significance of this structure
Questions