Segond fracture, Fixation

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ALL ligament?
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Ultrasound anatomy

• Arthroscopy 2016
• Ultrasonographic Identification of the Anterolateral Ligament of the Knee
• Etienne Cavaignac, M.D. et al Toulouse
Fluoroscopic laxity AP
Laxity check
Rotation

Perform the rotation test at 90°. BLUE pedal to stop the acquisition.
ALL instability?

Results of the 90° rotation test.
Primary injury / plain X ray information
Segond fractuur
Imaging Segond avulsion

- Incidence in MRI 3 % Resnick USA
- Incidence in X ray CORR Hess D 9 %
- Incidence ultrasound 29 % (ICONE)

- Higher velocity trauma ?
- Refixation / Feagin : 
Ultrasound imaging

- 88 patients with ACL
- 25 Segond lesions
- 70 Impaction # lateral FC
ALL relation with Segond #?
Bone lesions

- Segond fracture
- Tibia plateau lateral posterior avulsion
- Impaction LFC
Impaction lateral  FC
Hypothesis

- Avulsion lesions are a possible goal for refixing important lateral structures.
- The same approach we have for lateral fibula and tibial spine avulsion fractures.
Dynamic Imaging
Preoperative marker of Segond avulsion / ultrasound
US ALL ligament and #
Peroperative imaging lift off lateral meniscus
Case Report: Refixing ALL / segond #
Checking the pivot on the table is pulling the staple off / prove of importance in stability?
Refixing Segond or reconstruction AL ?
Data

- 18 patients / knees
- Segond fracture with intraoperative signs
- Staple fixation
- 5 cases with navigation
Conclusion

• We have new questions
  – Imaging
  – Indications
  – Surgical treatment fix or reconstruct
  – Some questions can be addressed by CAOS