



6th Advanced Course on Knee Surgery

January 31st – February 5th, 2016 Val d'Isère - France

www.kneecourse.com

Segond fracture , Fixation

Burt Klos

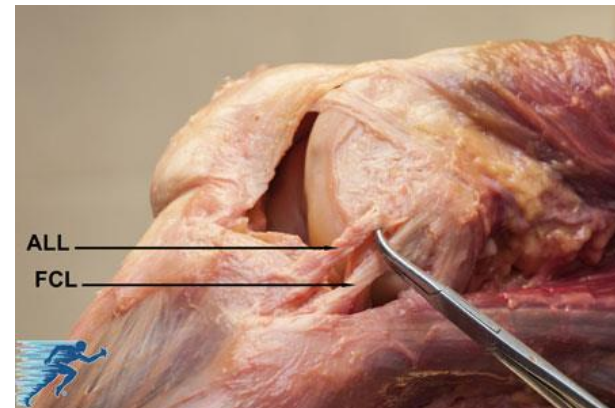
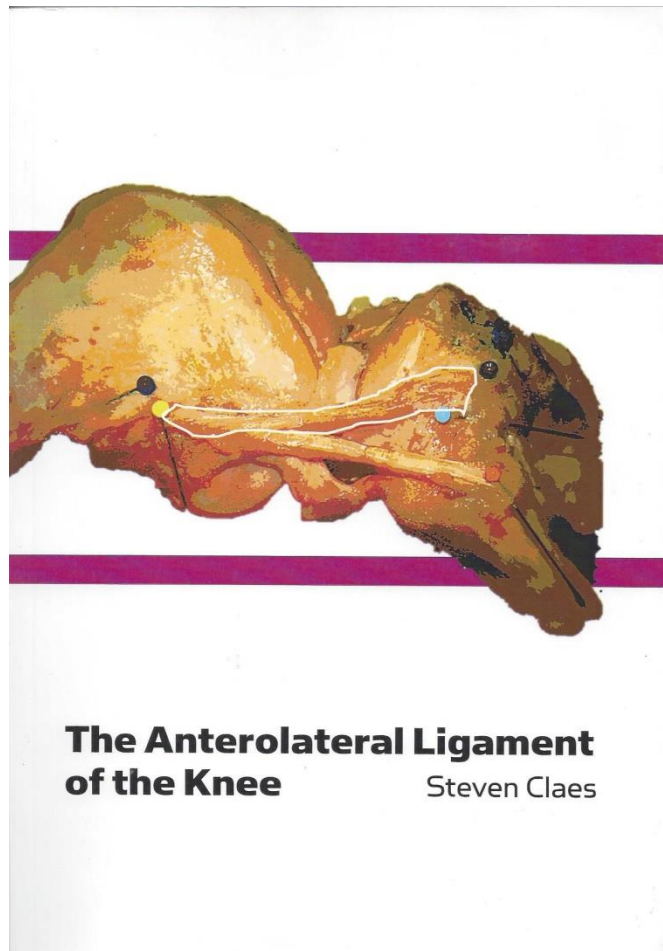
ICONE

The Netherlands



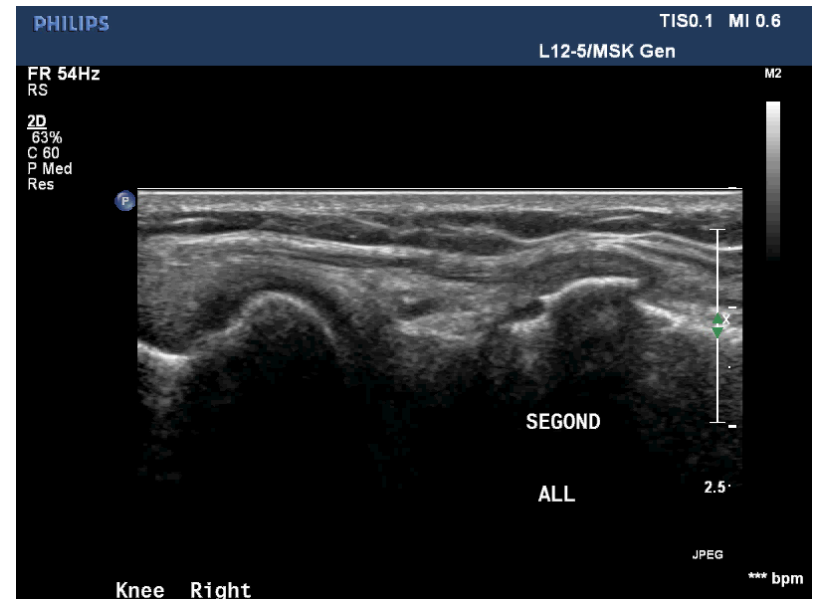
ALL ligament ?

November 2013 Belgium



Ultrasound anatomy

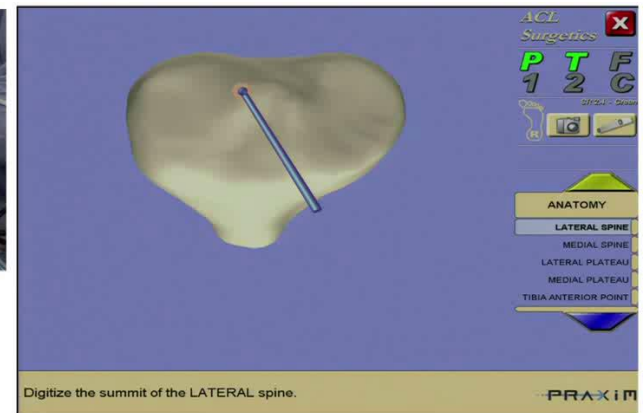
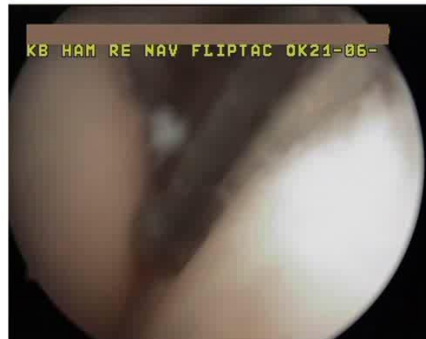
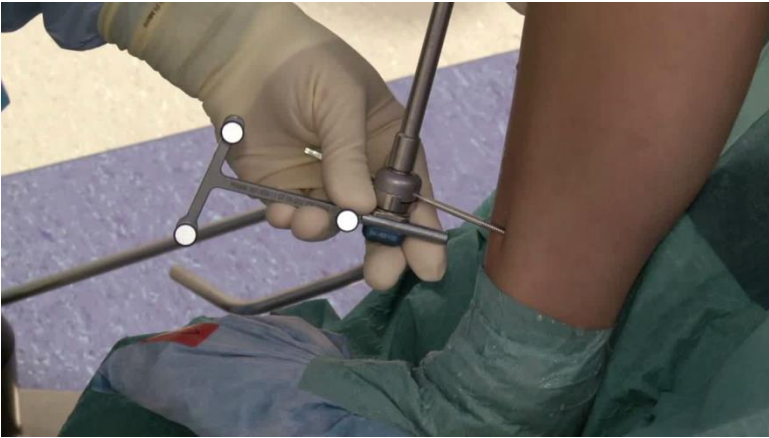
- Arthroscopy 2016
- Ultrasonographic Identification of the Anterolateral Ligament of the Knee
- Etienne Cavaignac, M.D. et al Toulouse



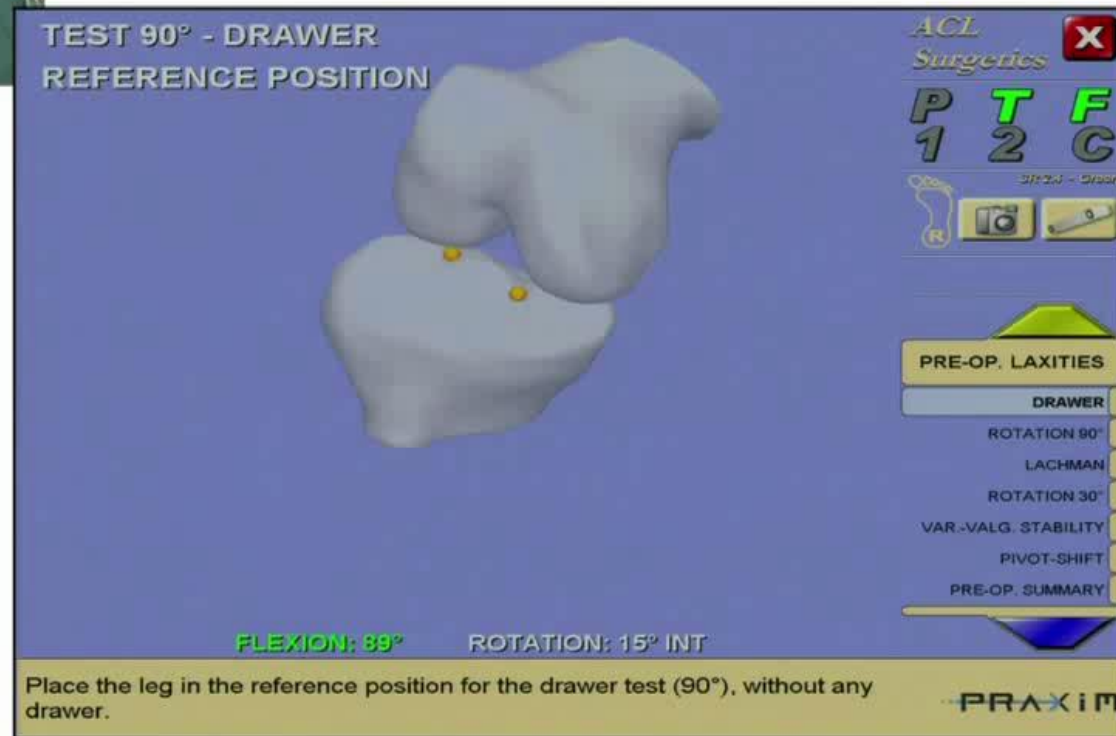
Fluoroscopic laxity AP



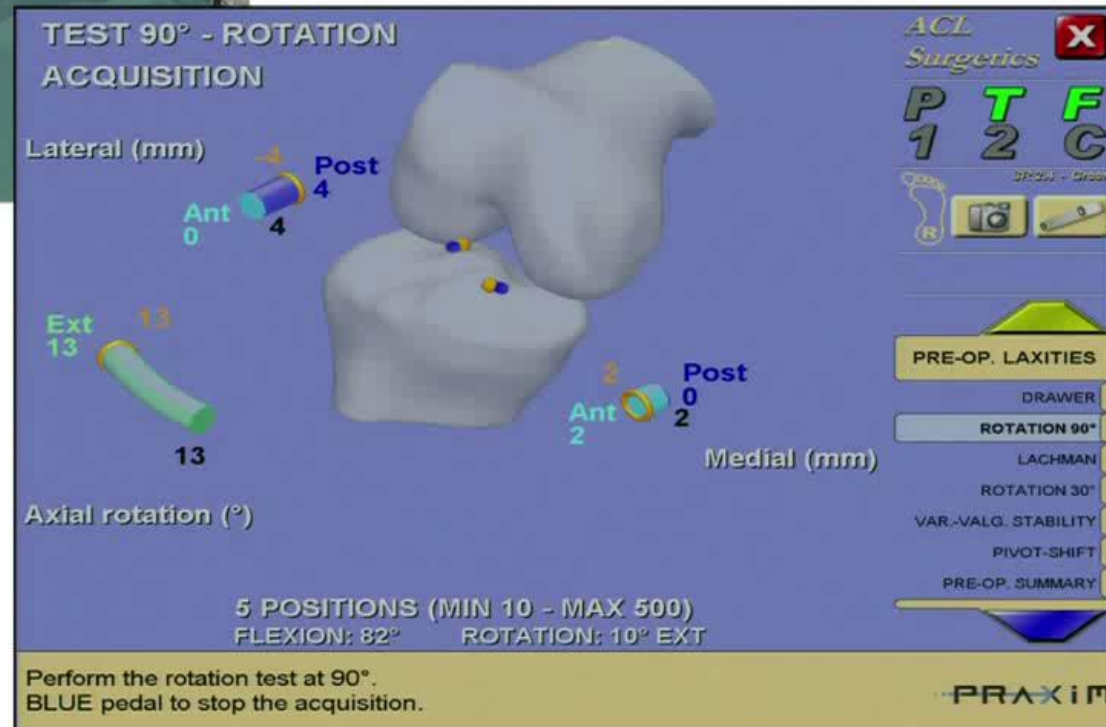
References frames / bone modelling



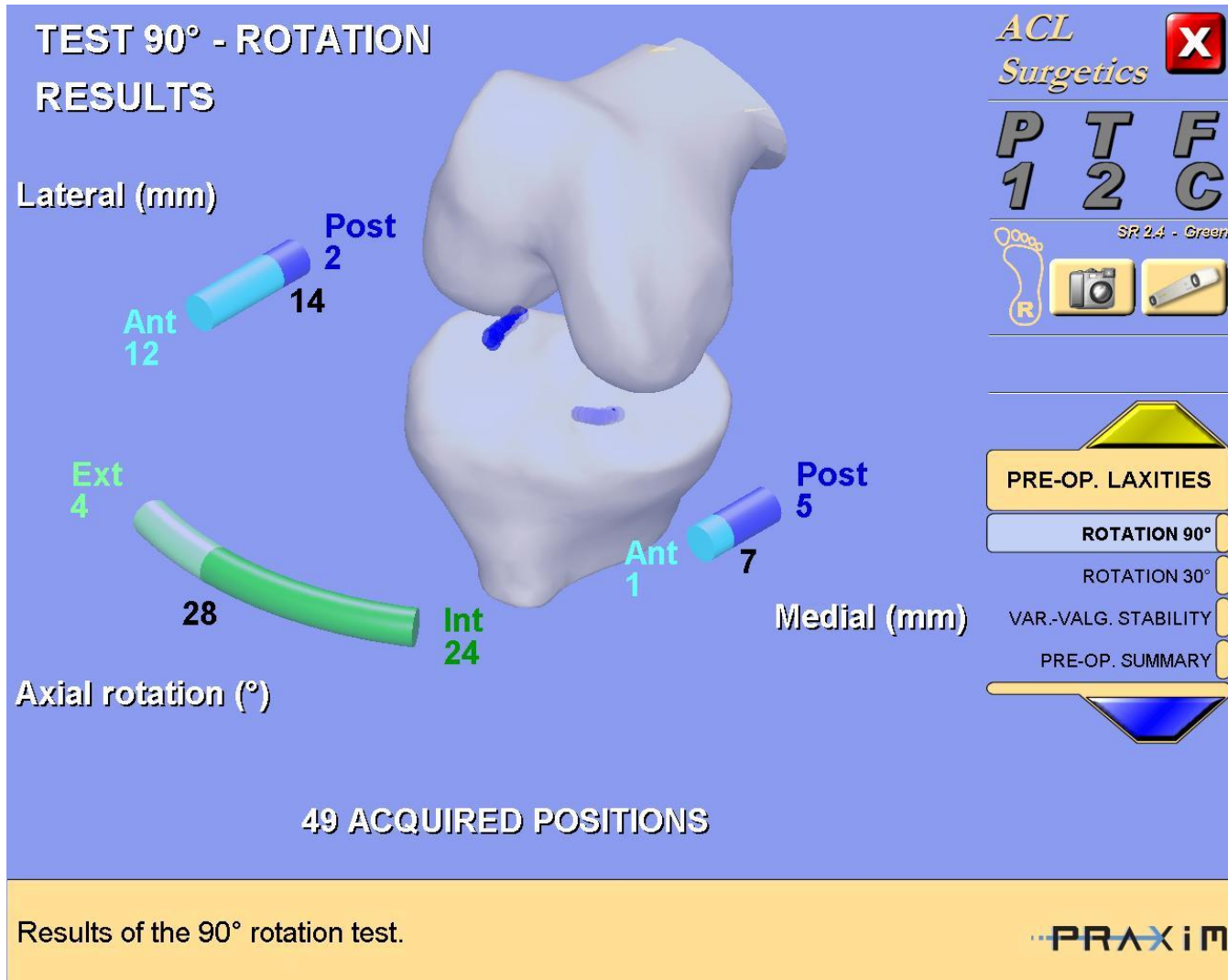
Laxity check



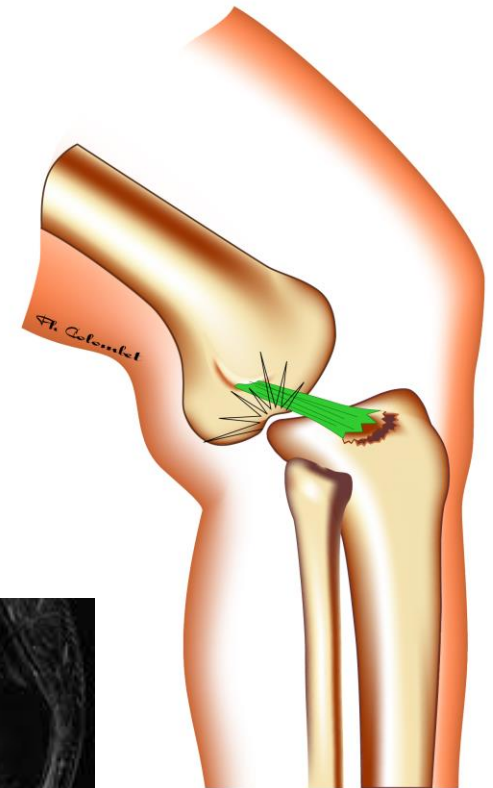
Rotation



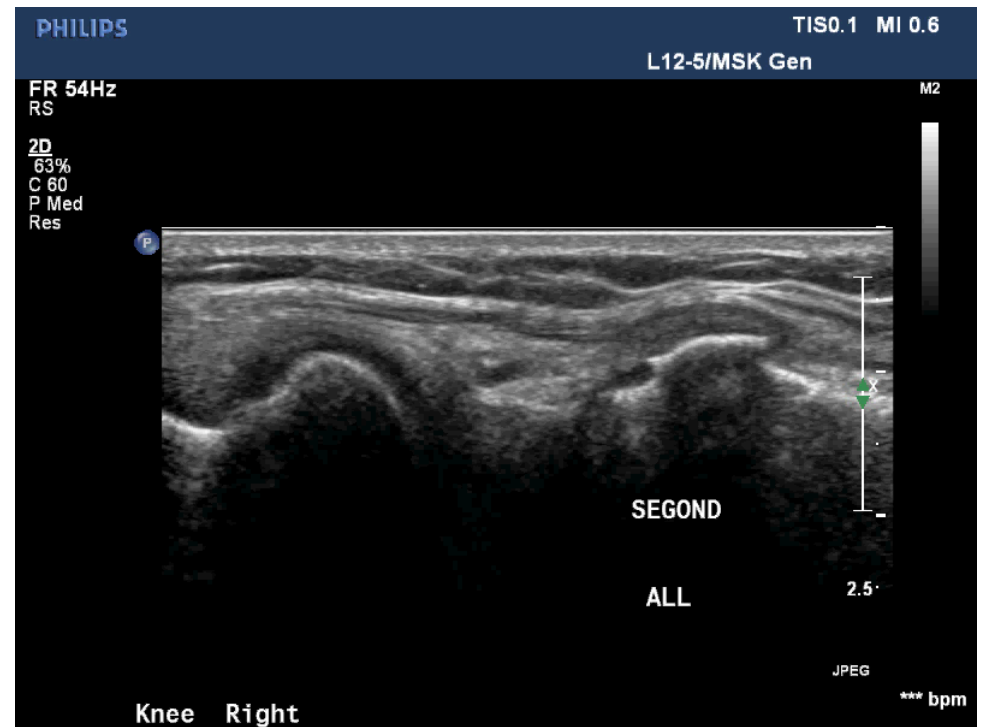
ALL instability ?



Primary injury / plain X ray information

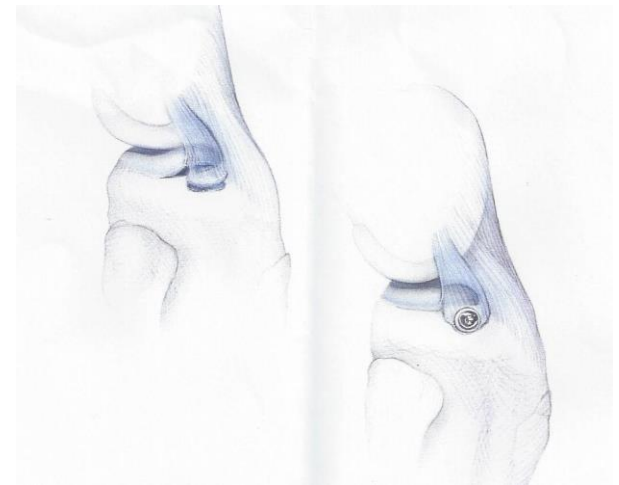


Segond fractuur



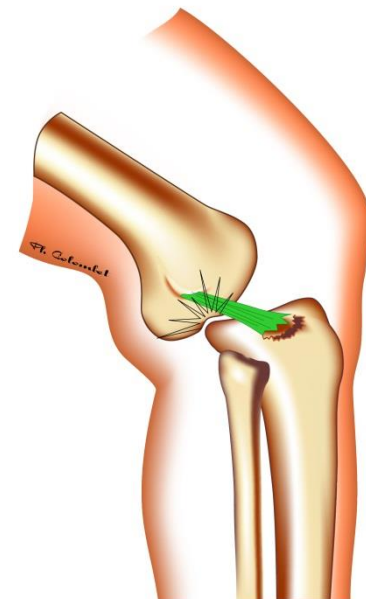
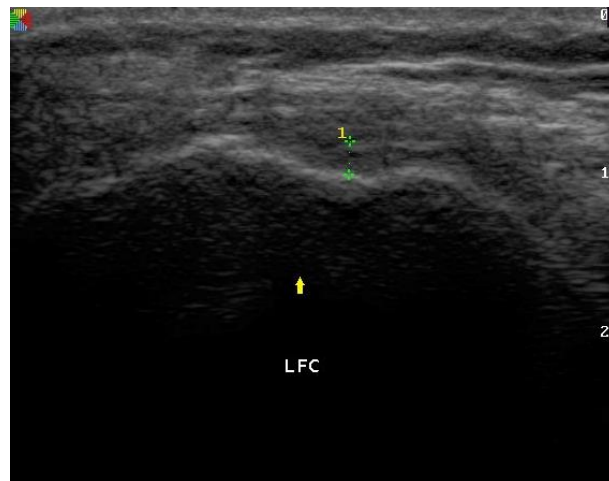
Imaging Second avulsion

- 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

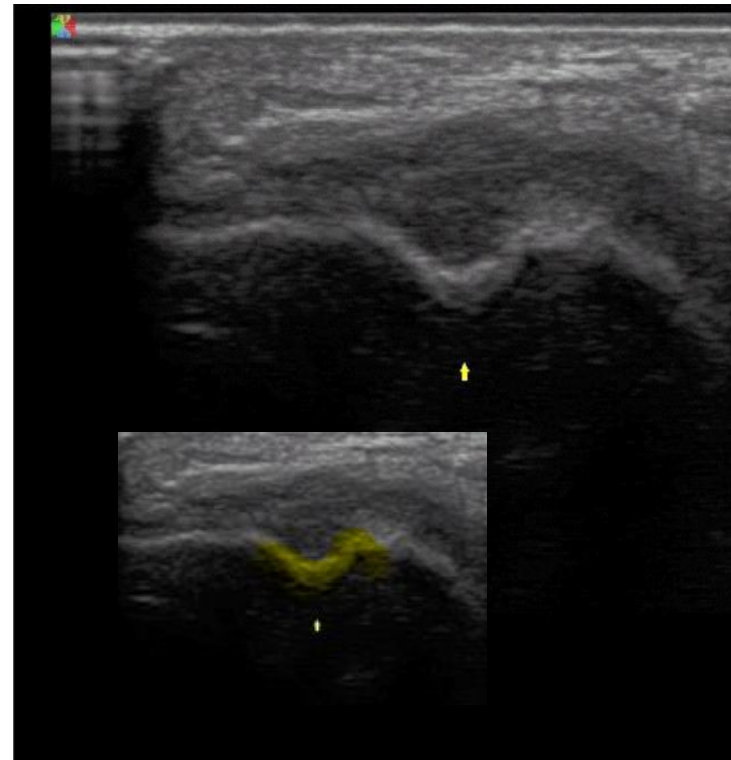
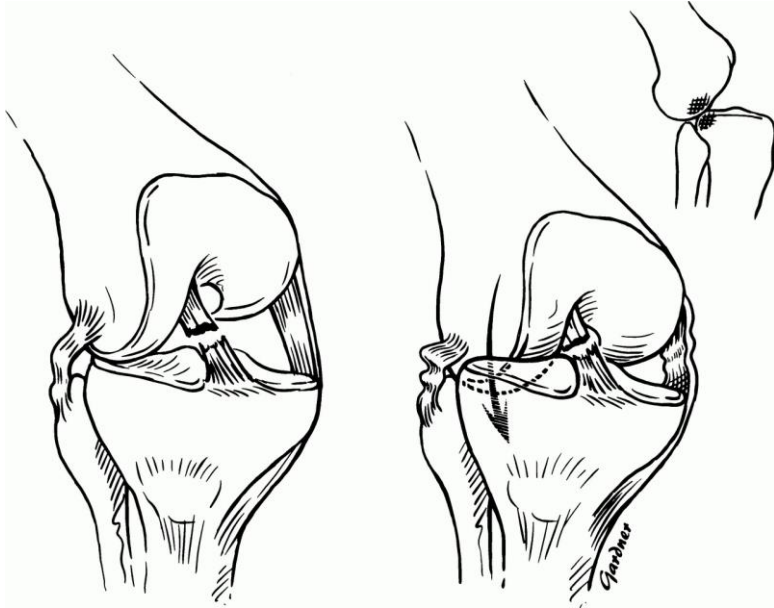
- 88 patients with ACL #
- 25 Segond lesions
- 70 Impaction # lateral FC



ALL relation with Segond # ?

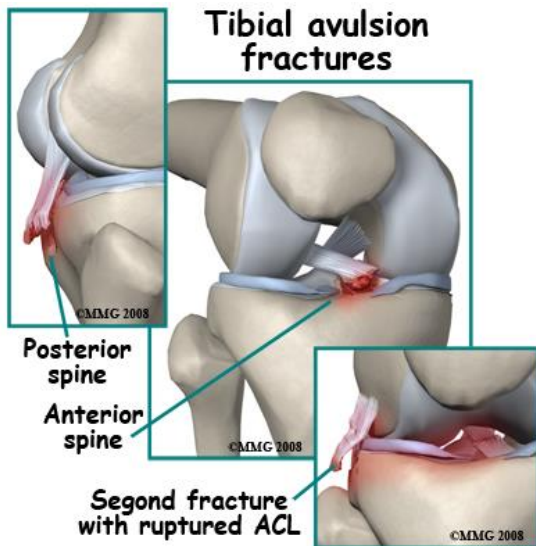


Impaction lateral FC

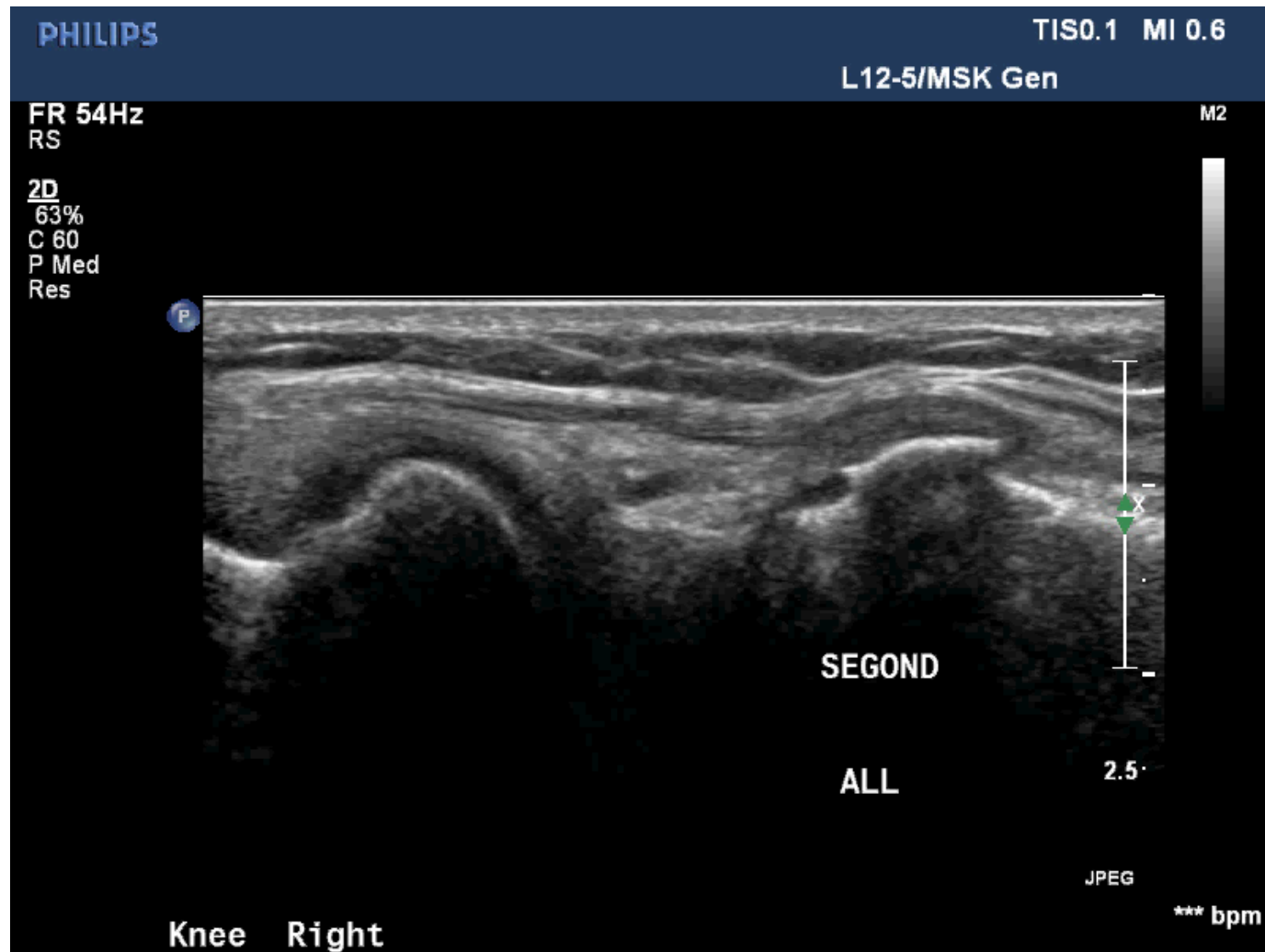


Hypothesis

- Avulsion lesions are a possible goal for refixing important lateral structures.
- The same approach we have for lateral fibula and tibial spine avulsion fractures



US ALL ligament and



Preoperative marker of Segond avulsion / ultrasound



Peroperative imaging lift off lateral meniscus

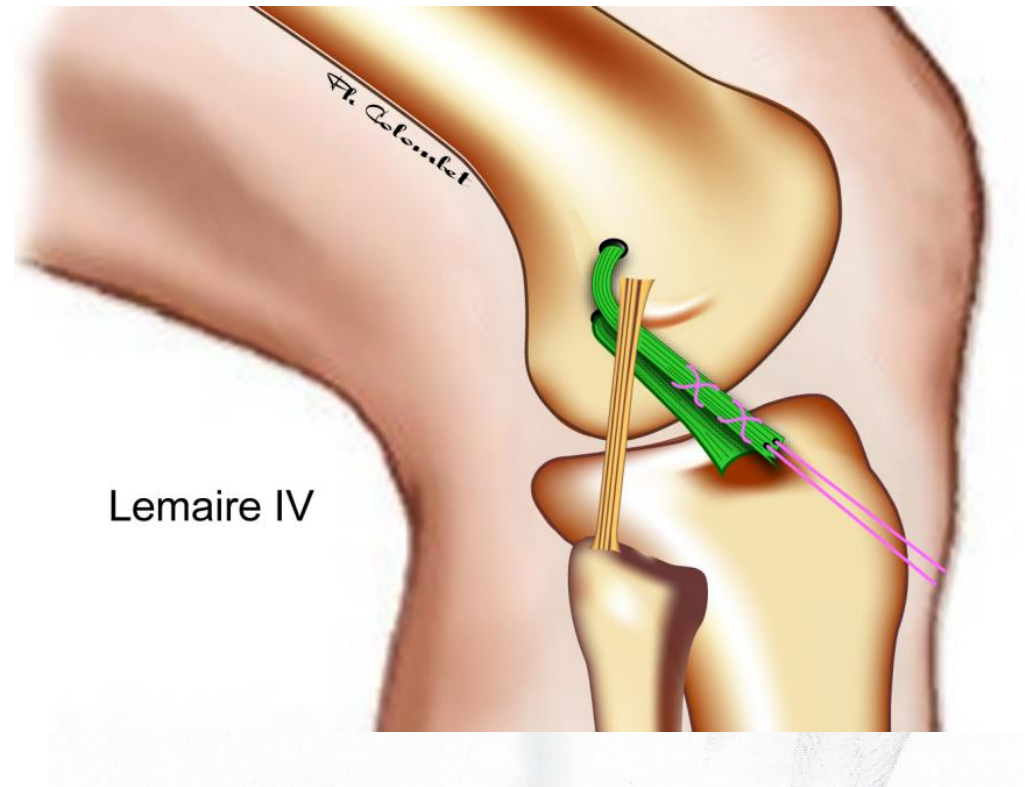


Case Report : Refixing ALL / second

Checking the pivot on the table is pulling the staple off
/ prove of importance in stability ?



Refixing Segond or reconstruction AL ?



Conclusion

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