



10th

Advanced Course on Knee Surgery



Varus knee : do we need an MRI ?

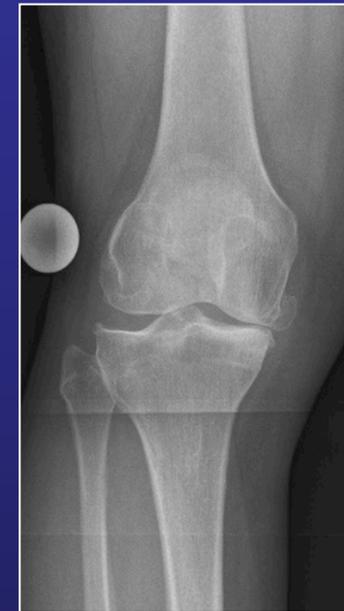
DIRECTORS

- N. GRAVELEAU
- F. KELBERINE
- P. LANDREAU
- S. LUSTIG

*S Lustig MD, PhD, Prof
Lyon - France*



- 62 active male
- St.p. 2 scopes
partial ME 6 years
- Progressive pain
daily pain killers
- Conservative failed
- High demanding &
sporting active
- Works as lawyer



2 standard radiographs

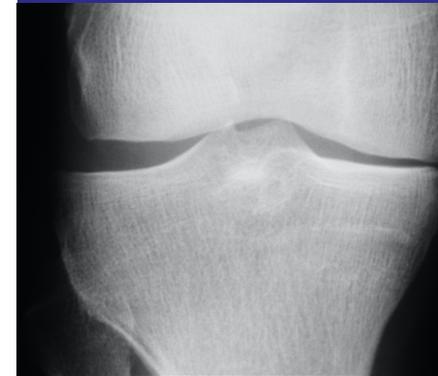
Clinical Exam

- Varus alignment
- Pain at the joint line
- No inflammatory history
- ROM almost normal
- Normal ligament testing
- Reducibility of deformity
- Over 65 years old
- No obesity

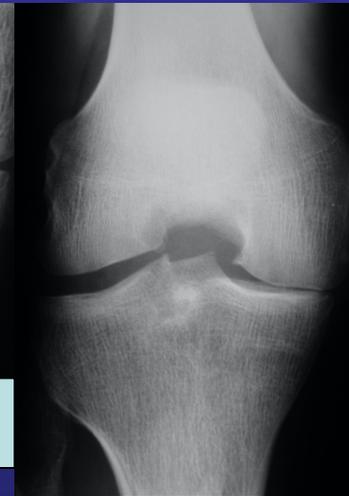


Radiological check-up

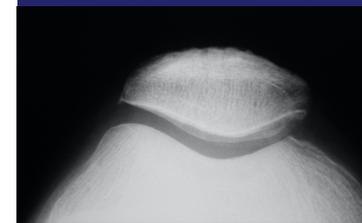
- Monocompartmental ?
- Partial or complete Femoro-tibial narrowing ?
- Uninvolved contralateral and patello-femoral compartment ?



A-P monopodal



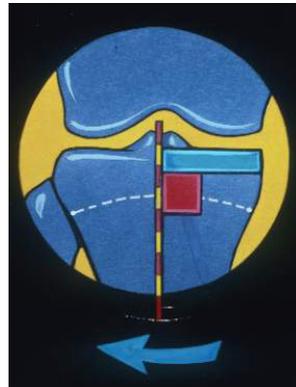
Schuss



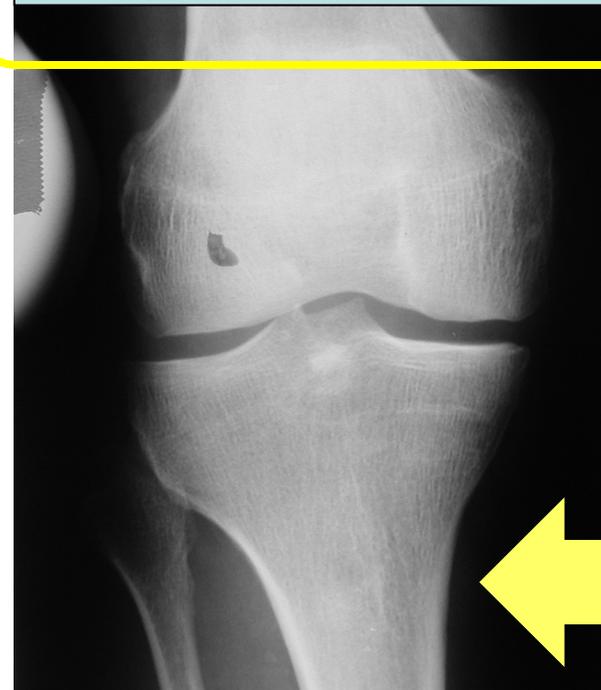
Axial view

Radiological check-up

- Good reducibility ?
- Complete but...
- No overcorrection



Stress X-Rays



Radiological check-up

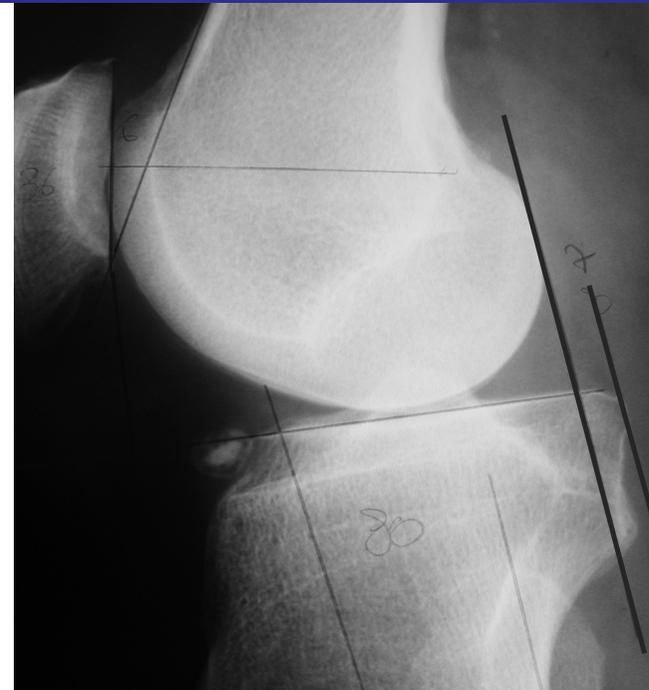
- No Laxity in the



- Convexity.....



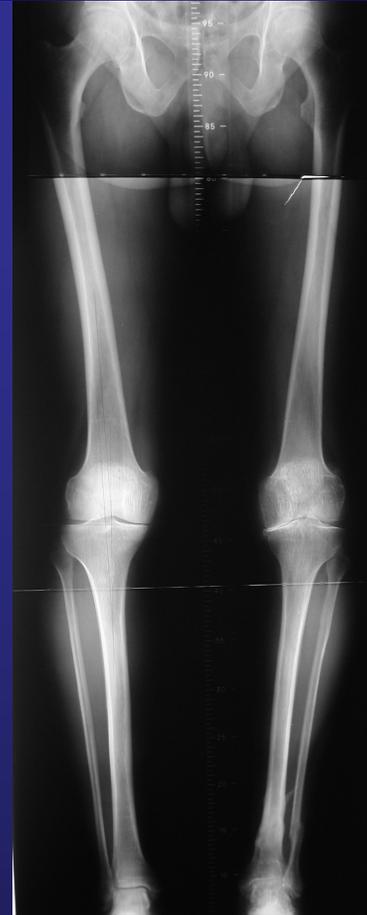
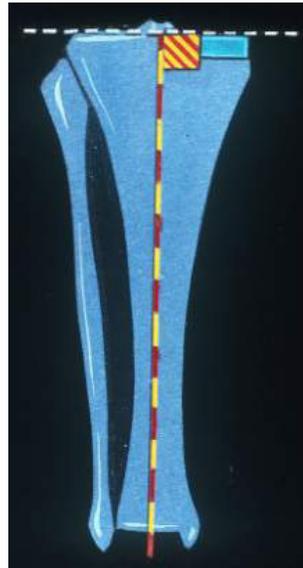
- A-P plane



Lateral monopodal
X-Rays

Radiological check-up

- Extra-articular deformity
< 5 degrees ?



Long leg film
HKA film

Patient selection guidelines

Anatomical conditions

- Stage of Osteoarthritis
- Deformity analysis and its reducibility
- Ligamentous status
- Range of motion



1. Stage of OA

- Osteonecrosis
- Osteoarthritis (IKDC)

Grade A or B

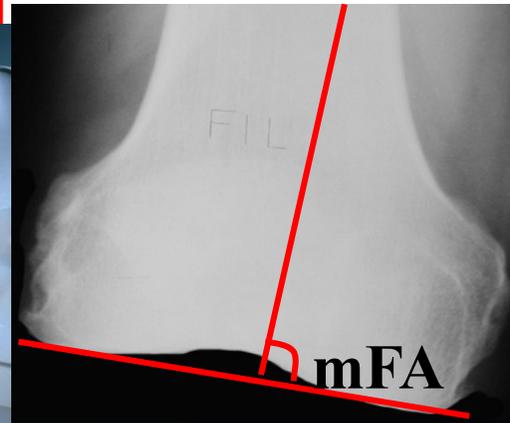
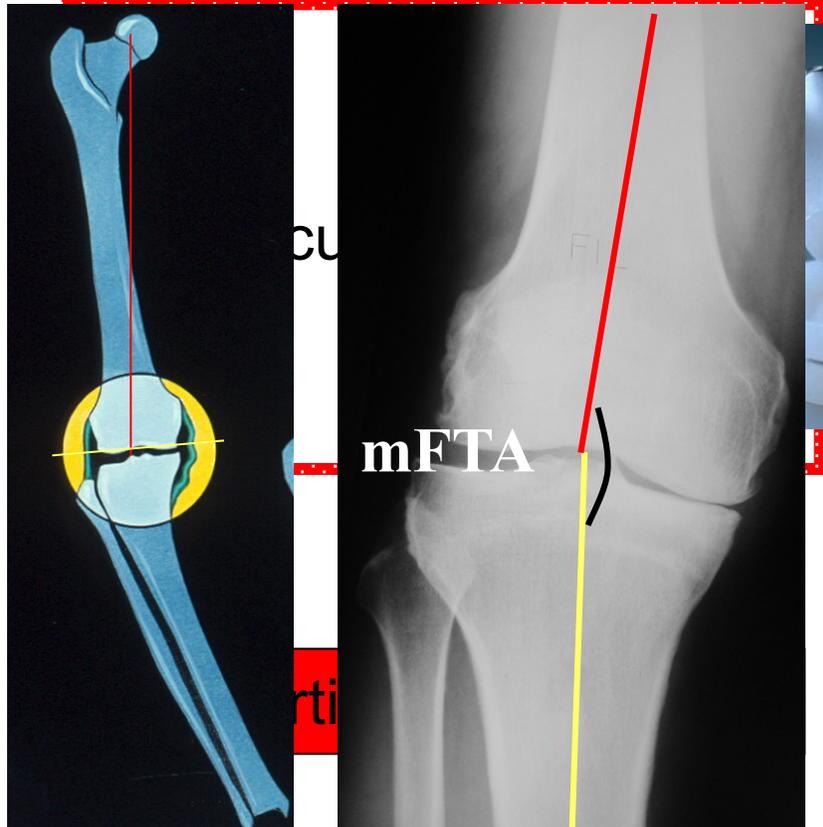
Grade C or D

Severe OA with cupula

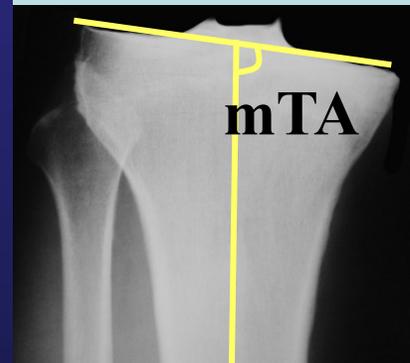


2. Deformity Analysis and its reducibility

- HKA film: mechanical Femoro-Tibial Angle



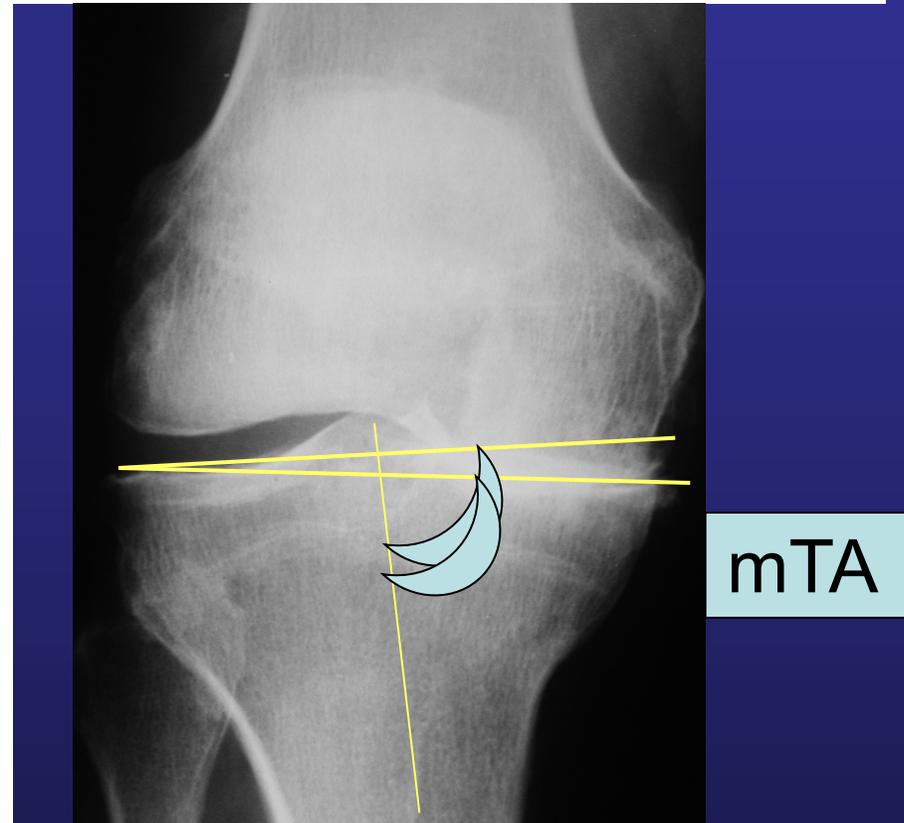
Uni acts as a spacer to compensate wear



2. Deformity Analysis and its reducibility

- HKA film mechanical *Tibial* Angle

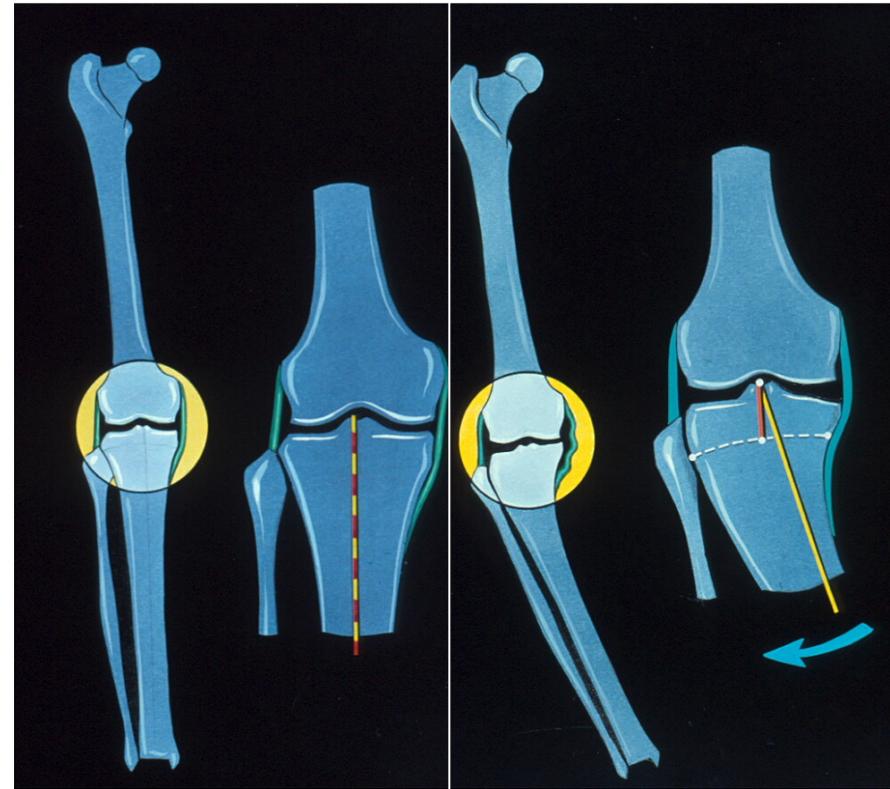
measurement ?



2. Deformity Analysis and its reducibility

- Stress HKA film:

Reducibility



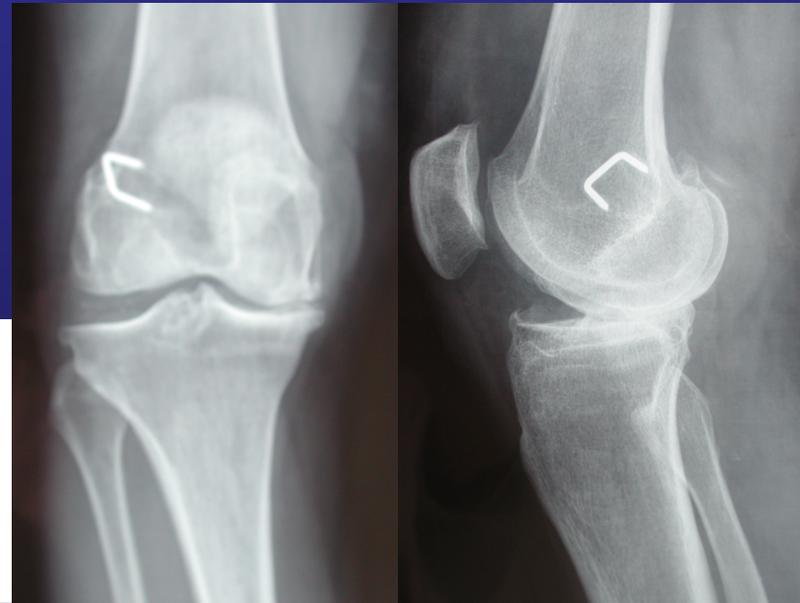
3. Ligamentous status

- Integrity of the ACL

Deschamps G. RCO, 1987 (87): 544

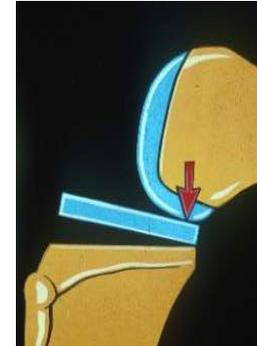
Goodfellow J. JBJS [Br], 1988 (70): 333

- Anterior tibial translation >10 mm
- Posterior cupula
- Hooked spines



4. Range of Motion

- **No fixed flexion deformity**
 - No release post capsule
 - Do not increase post slope

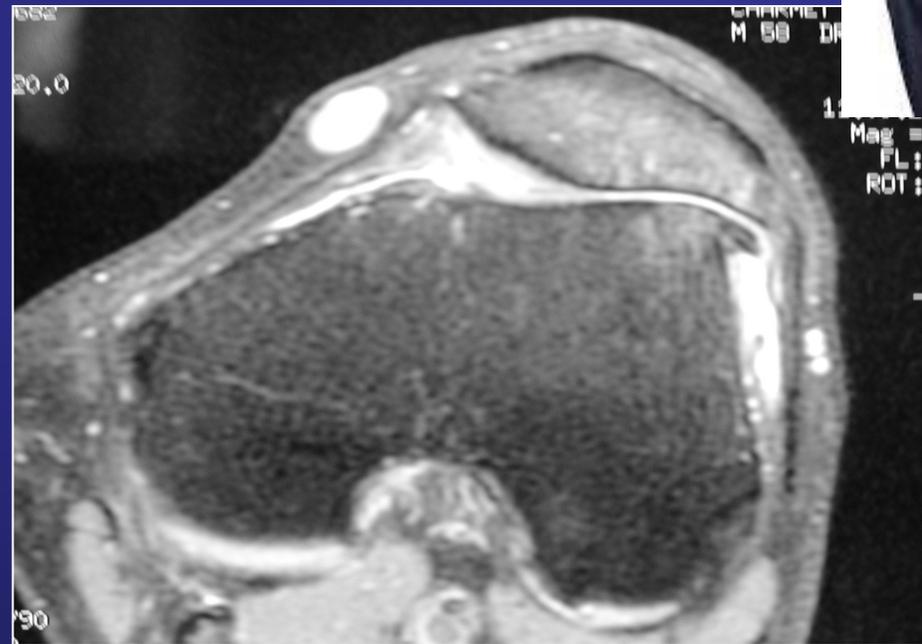


- **Knee flexion**
 - allows ROM preservation
 - the best “high flexed knee”.



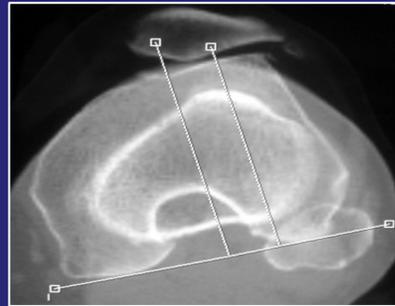
Do we need an MRI ?

- Other compartment ?
- ACL
- Meniscus
- Oedema ?

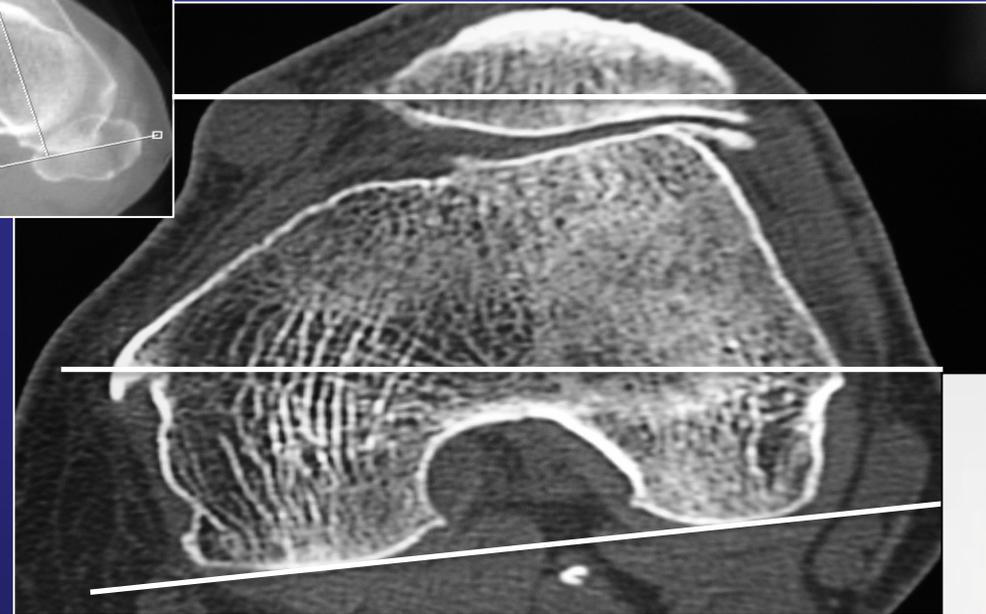


Do we need a CT Scan / Arthro CT Scan ?

TT TG
(but PF OA)



Preop planning
(rotation / PFA /
TKA). Robot +++



Arthroscopy ?



Take Home Message

- Clinical exam +++
- Xrays are sufficient most of the time
(stress Xrays and LL films)
- MRI or Arthro CT Scan : occasionally