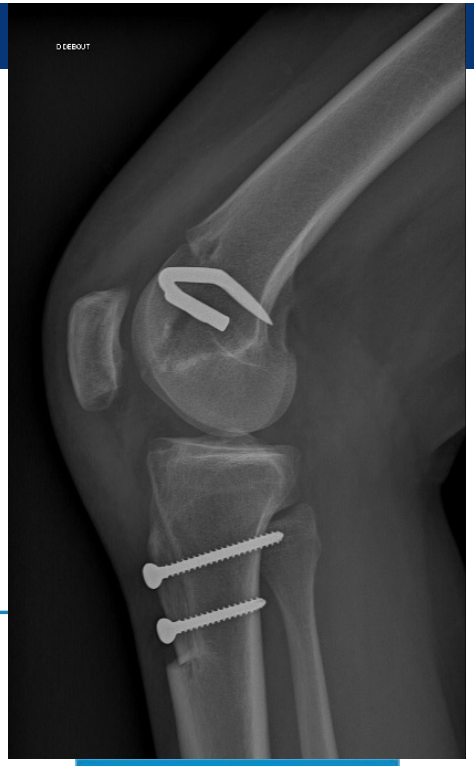
RECESSION TROCHLEOPLASTY :

TECHNIQUE – INDICATIONS - RESULTS



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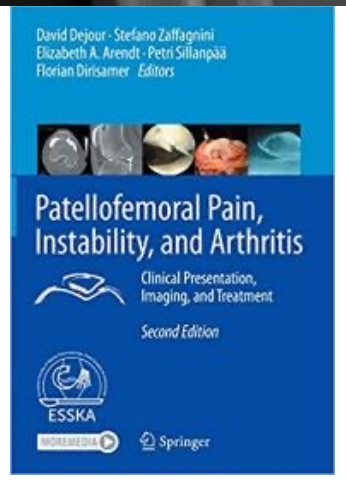
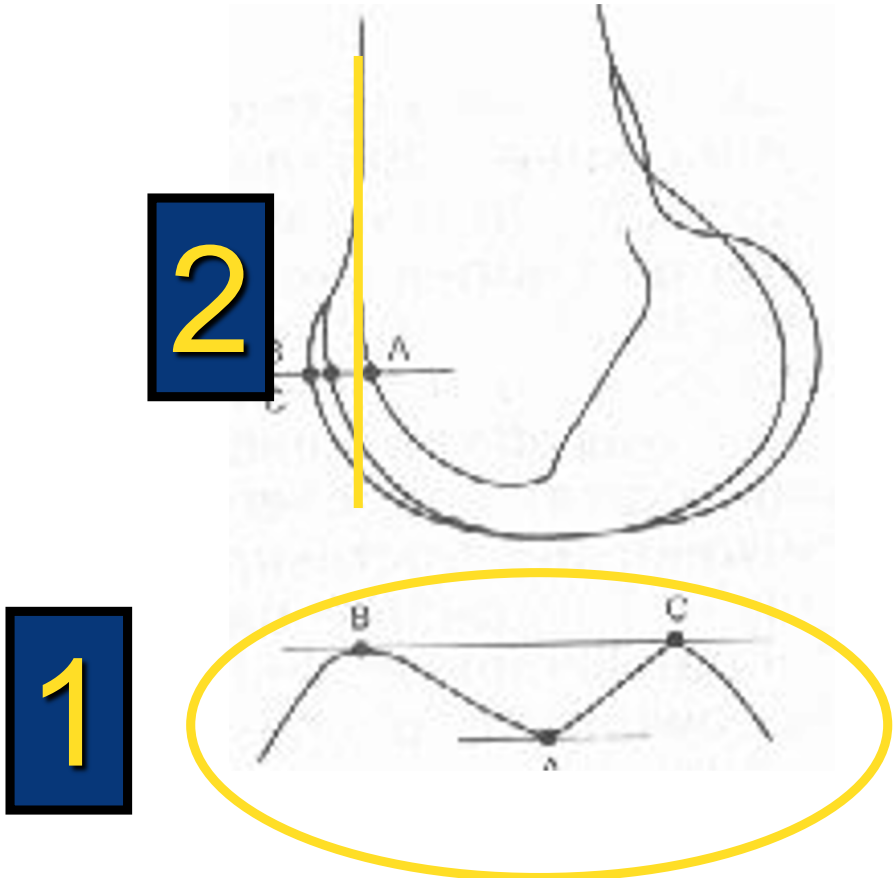


Trochlear Dysplasia

2 criteria : Flatness and Bump (protrusion)



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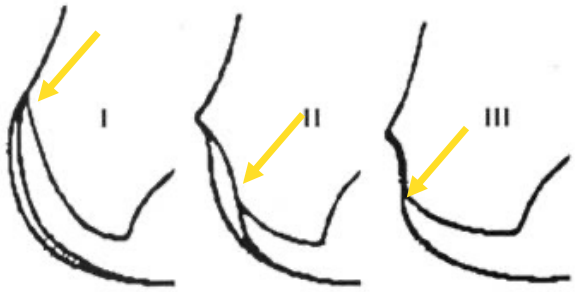
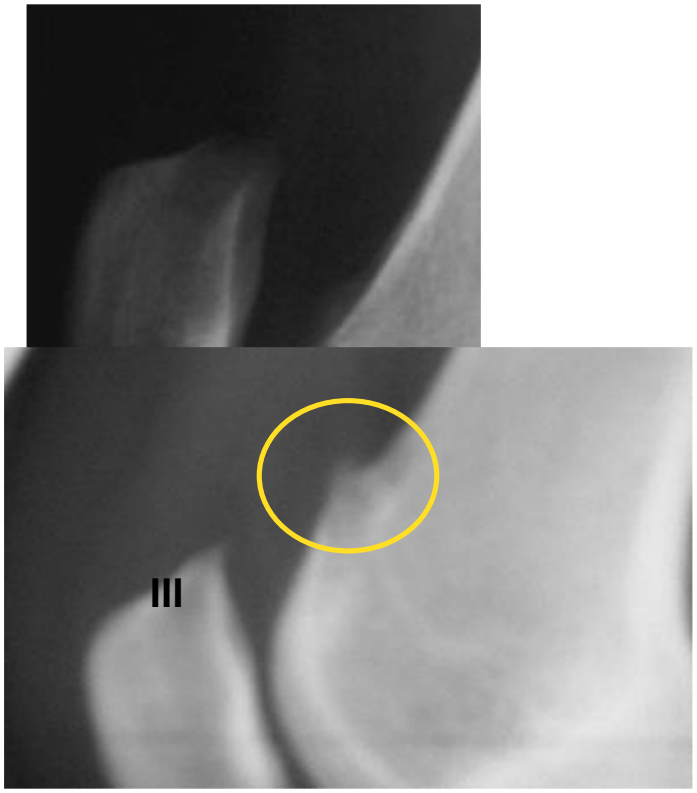
Trochlear Dysplasia

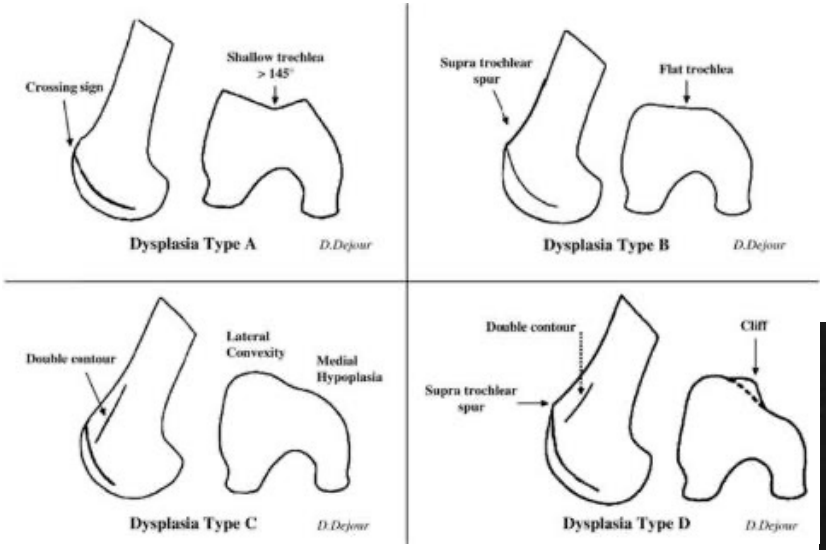
Dejour & Walch (1990)



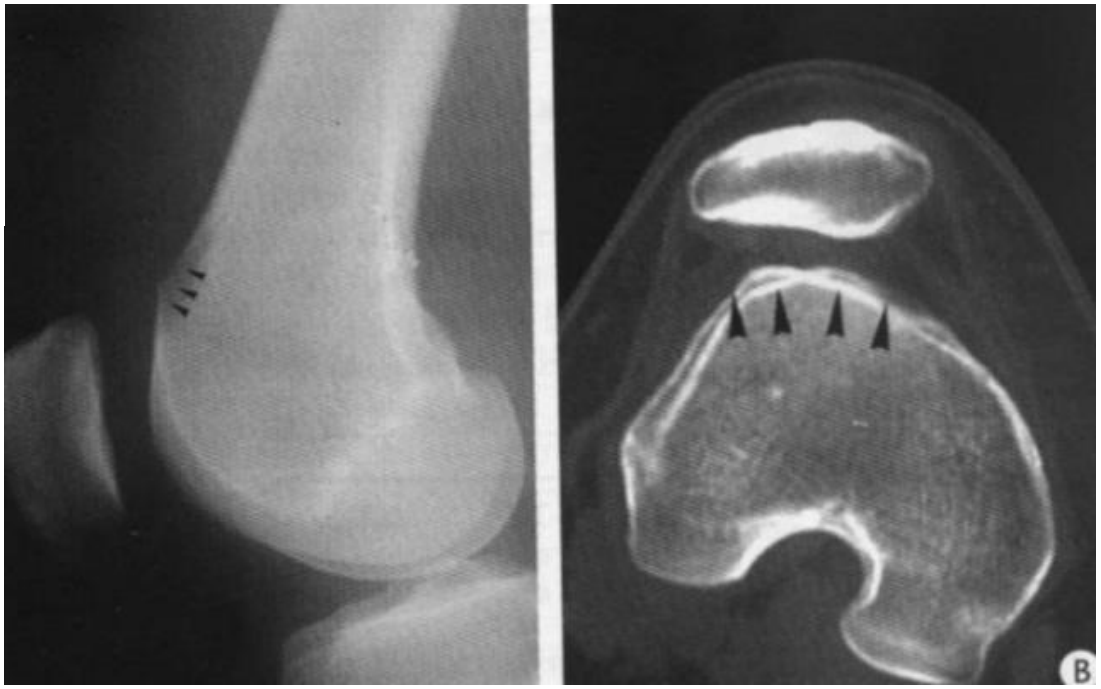


Crossing sign

Trochlear Dysplasia



<u>D Dejour</u> : CT scan
Crossing sign = flatness
Sus trochlear bump = protrusion



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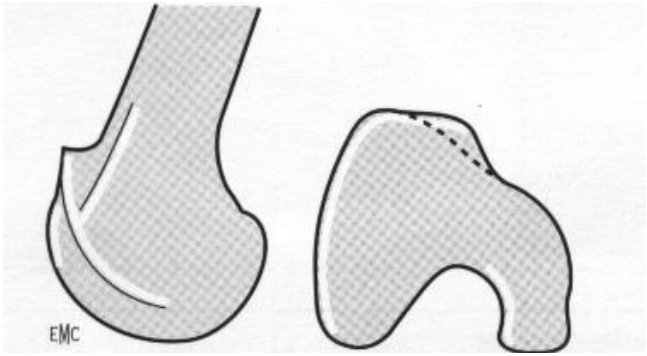
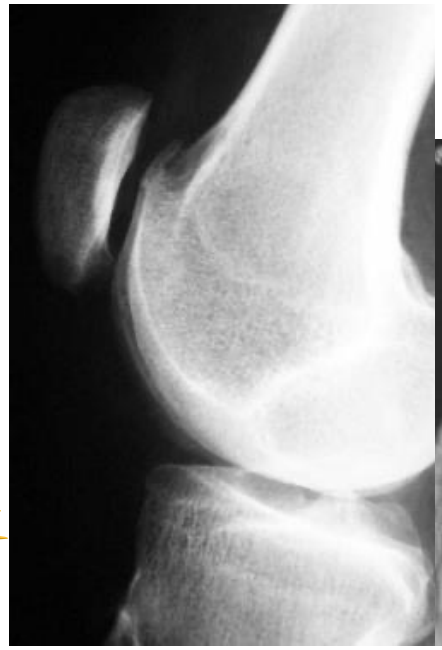
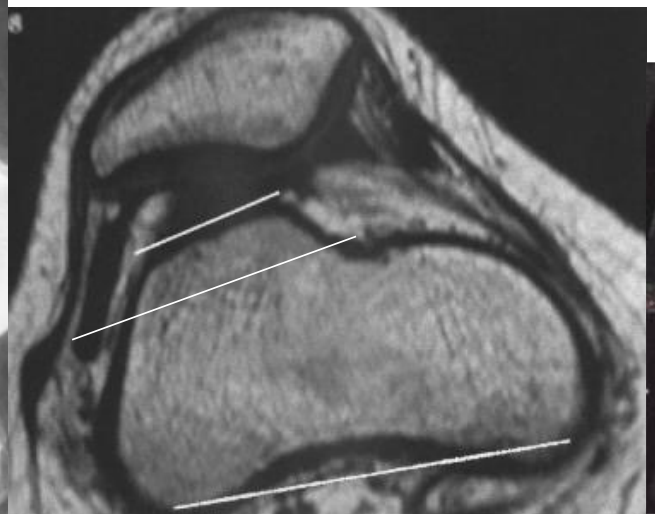
Trochlear Dysplasia

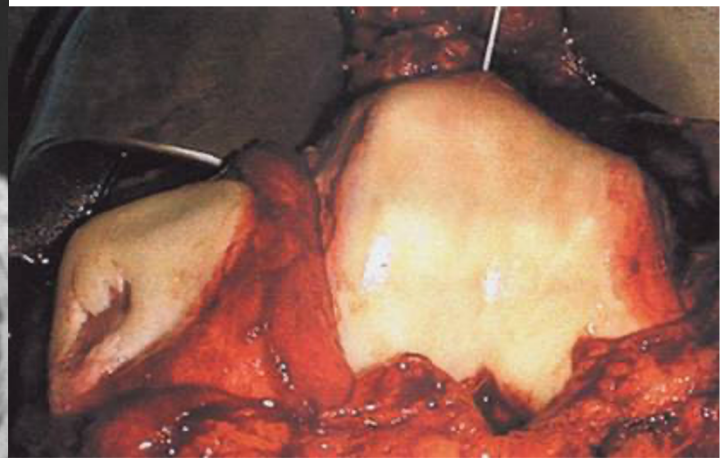


Crossing sign
Trochlear bump

Major instability







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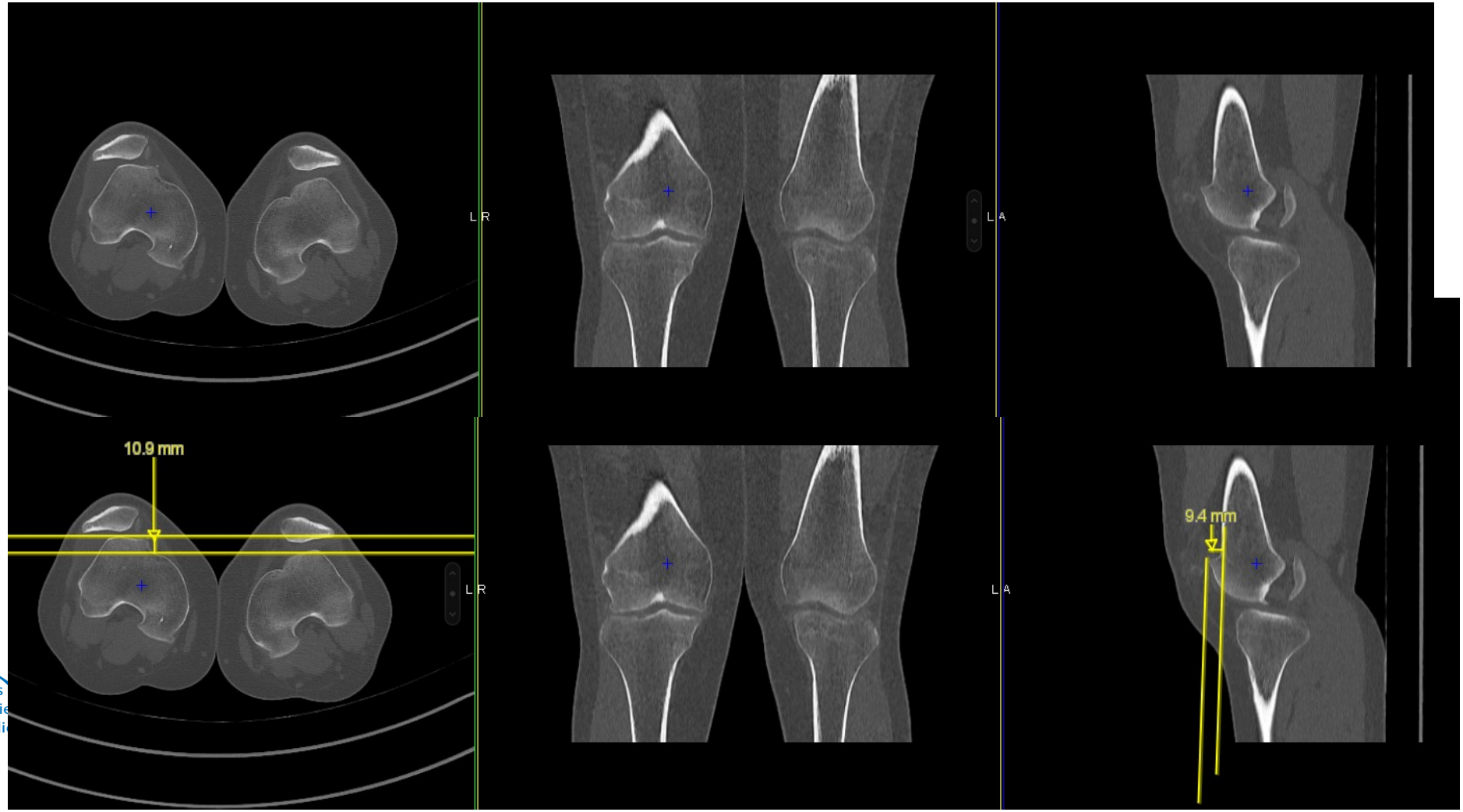
Trochlear Dysplasia



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Orthopédi

Main problem = engaging patella

- Flatness of the trochlear groove?
- Trochlear Bump?
- Both of them?

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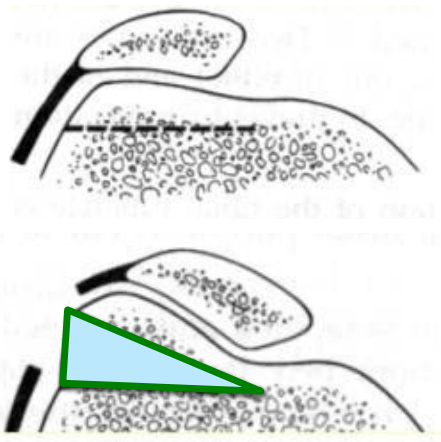
Different techniques

Elevation

Lateral Trochlear Elevation

Albee

Albee F. Med Rec **1915** *88:257-9*



Deepening

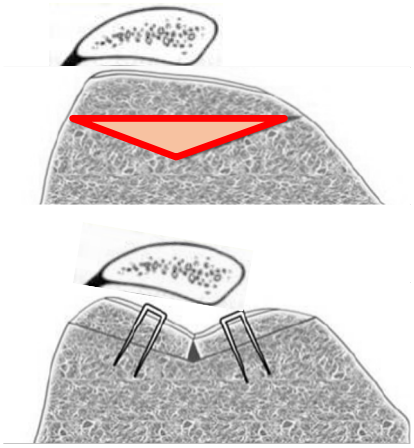
Sulcus Deepening T.

Masse

Masse Y. RCO **1978** *64:3-17*

Dejour

Dejour D. Knee **2006** *13(4):266-73*



Recession

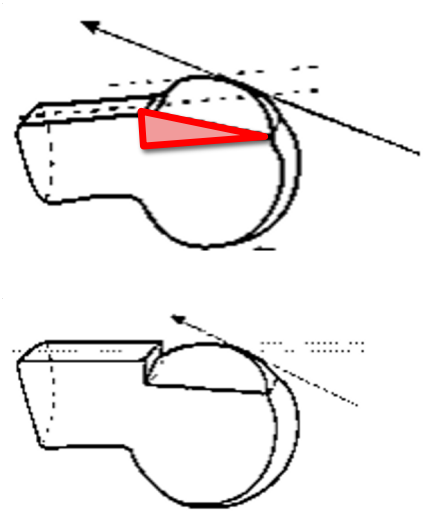
Recession Wedge T.

Goutallier

Goutallier D. RCO **2002** *88:678-85*

Beaufils

Thaunat M. OTSR **2011** *97;833-45*



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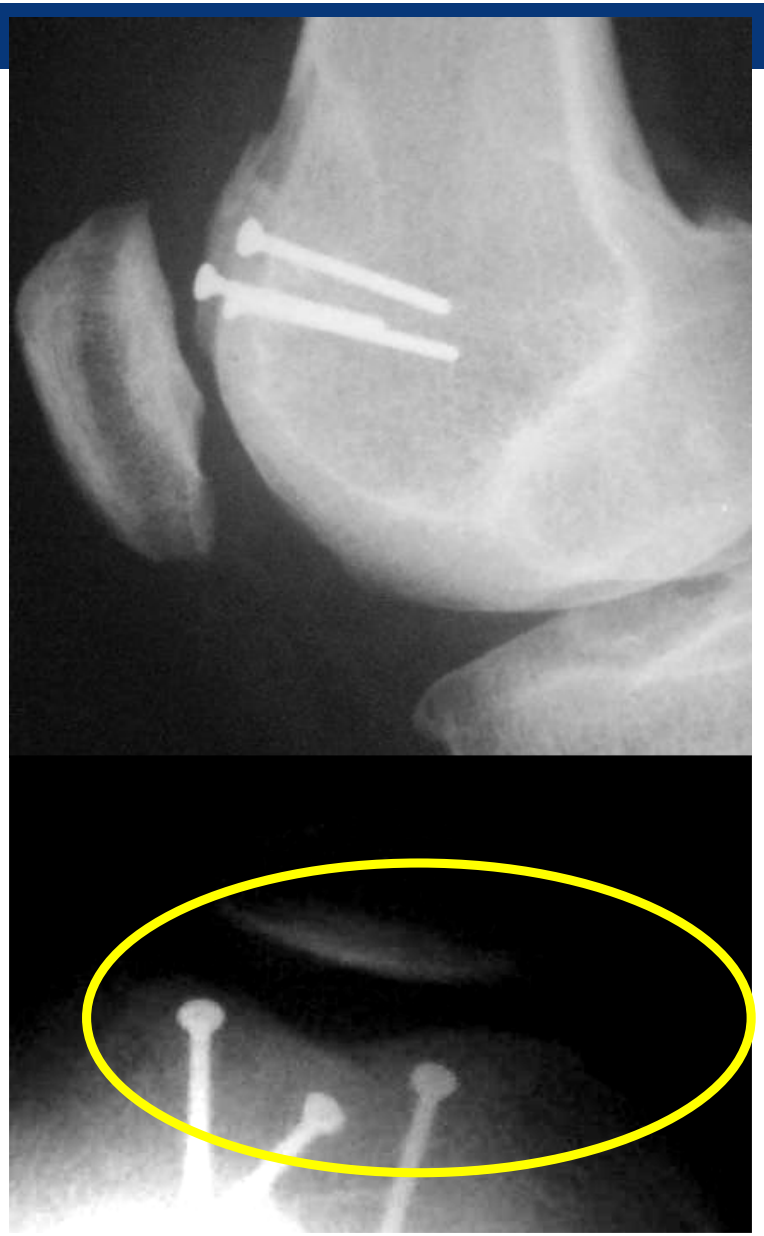
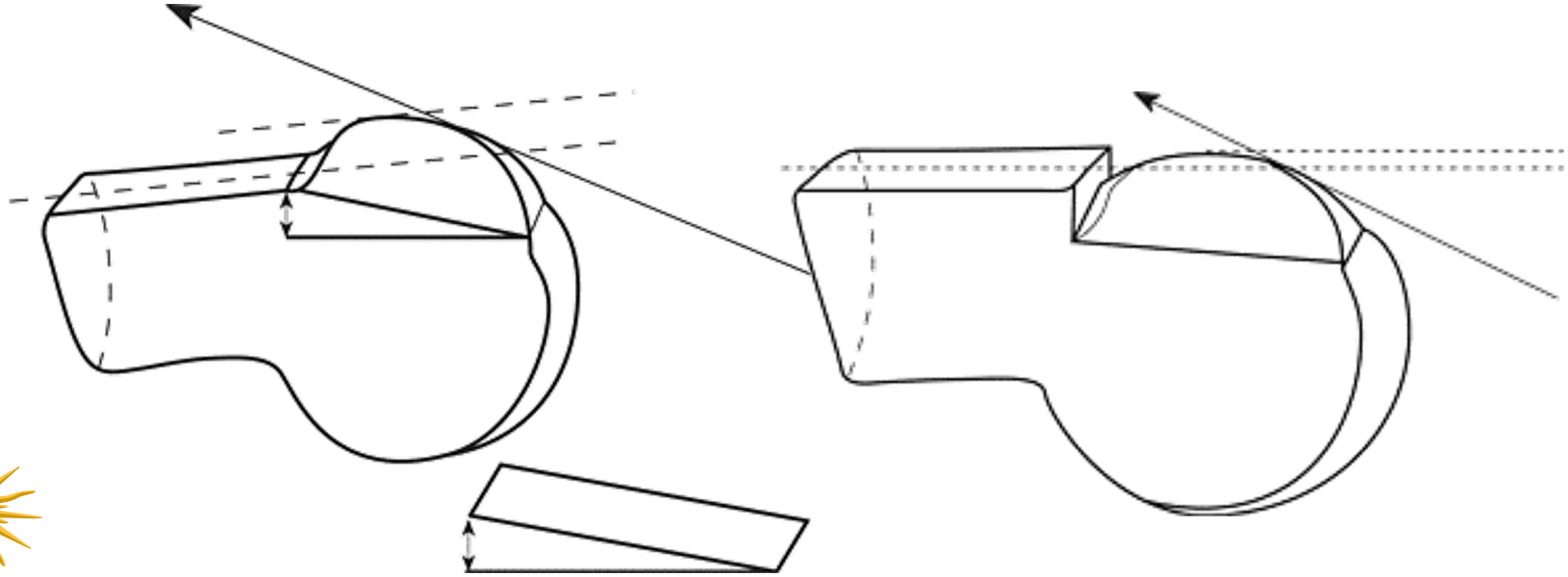
- Difficulties : where is the groove ?
- Morbidity ?
- What about a flat patella on a deep trochlea ?



Trochleoplasty : methods

- « Depression trochleoplasty »= Recession trochleoplasty= closing wedge trochleoplasty

D Goutallier, Rev Chir Orthop 2002



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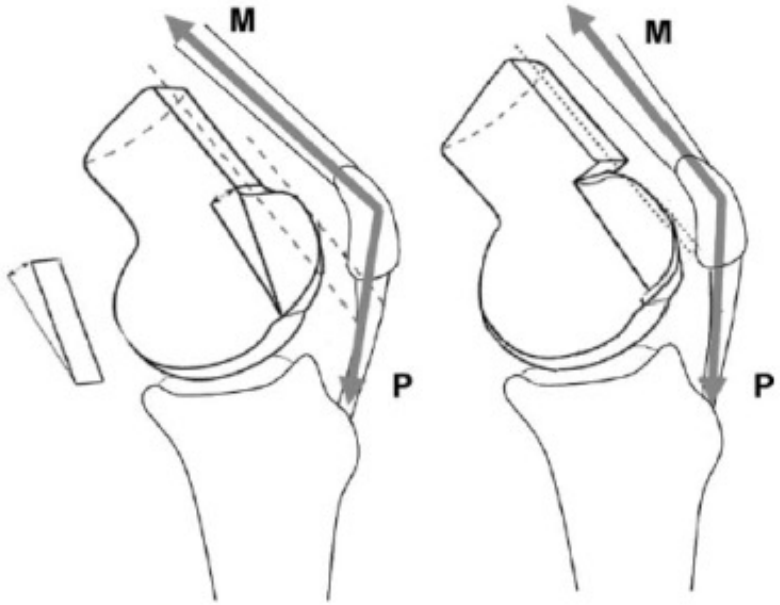
Goals

- Patellar stabilisation

  - Removal of trochlear bump= stop engaging sign
  - Restore patellar tracking
  - Without changing the joint congruency

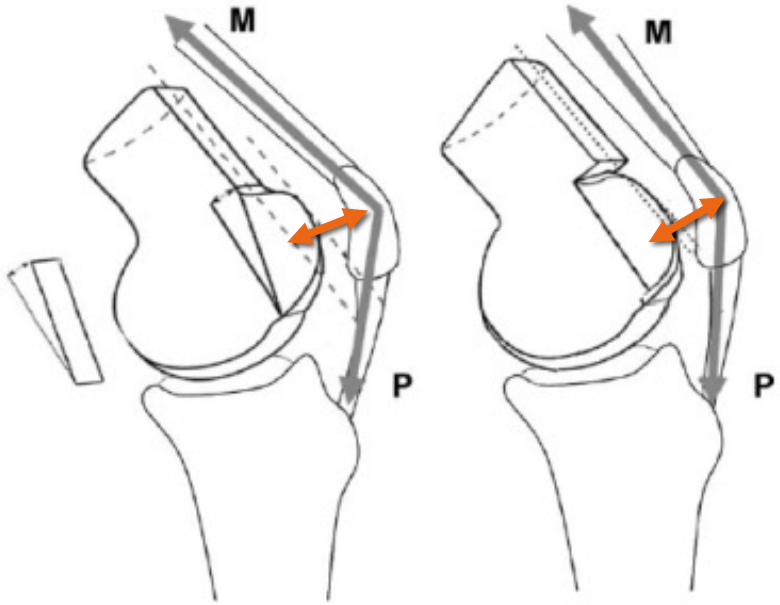
- Decrease patellofemoral joint loads
- Prevent OA?



Versailles Arthroscopie Orthopédie VAO

Is it effiscient?

- Patellar Stabilisation
- YES
- 95%



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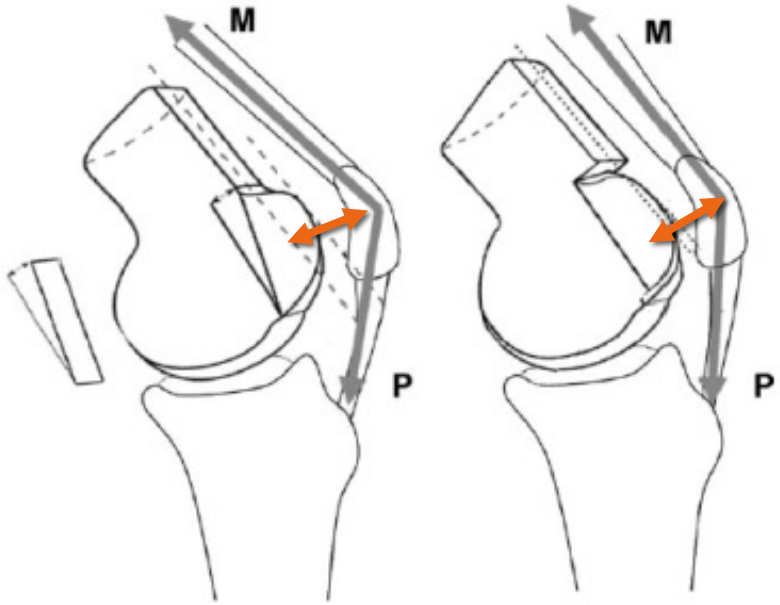
Is it effiscient?

- Decrease patellofemoral joint loads ?
- YES
- - 27%



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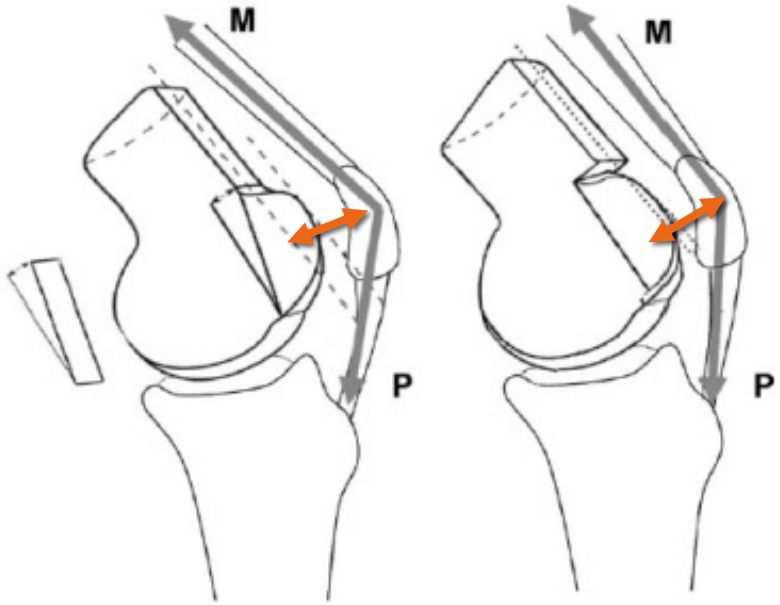
Is it effiscient?

- Prevent OA??
- YES
- <5% OA > 10y



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Surgical technique

Installation

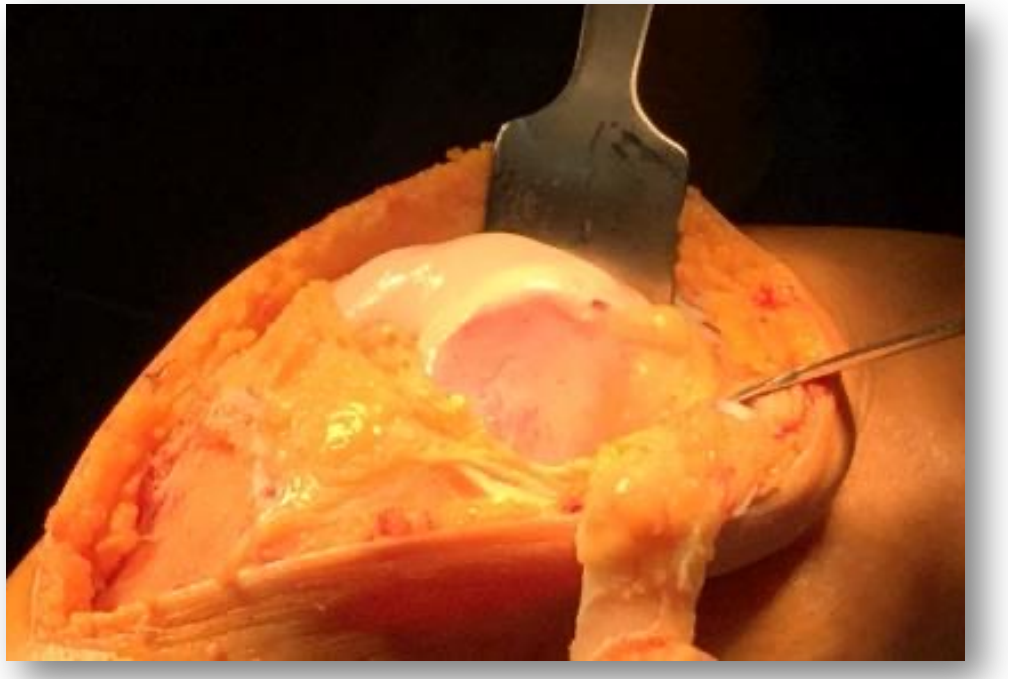
- Prone- Knee at 90° - Tourniquet

Incision

- Central
- Medial or lateral arthrotomy

TT osteotomy

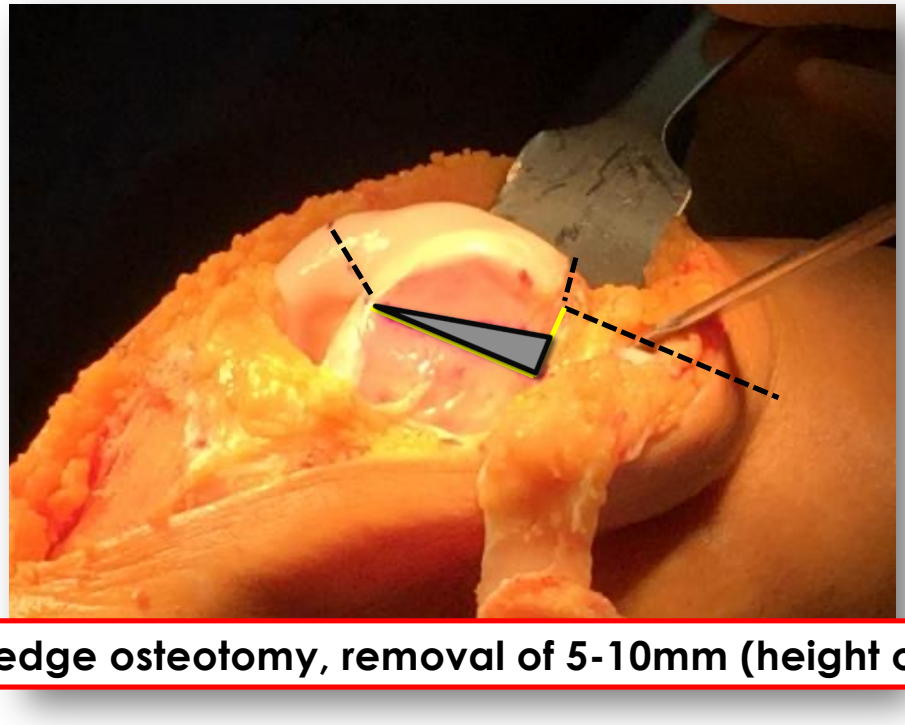
- 7cm
- Oscillating saw
- **lateral retinacular release**



① Bony landmarks

- Anterior tibial cortex
- Intercondylar notch
- Cartilage-bone junction

A lign parallel to the anterior cortex on the superior part of the intercondylar notch



A perpendicular lign at the junction between bone and cartilage

Closing wedge osteotomy, removal of 5-10mm (height of the bump)

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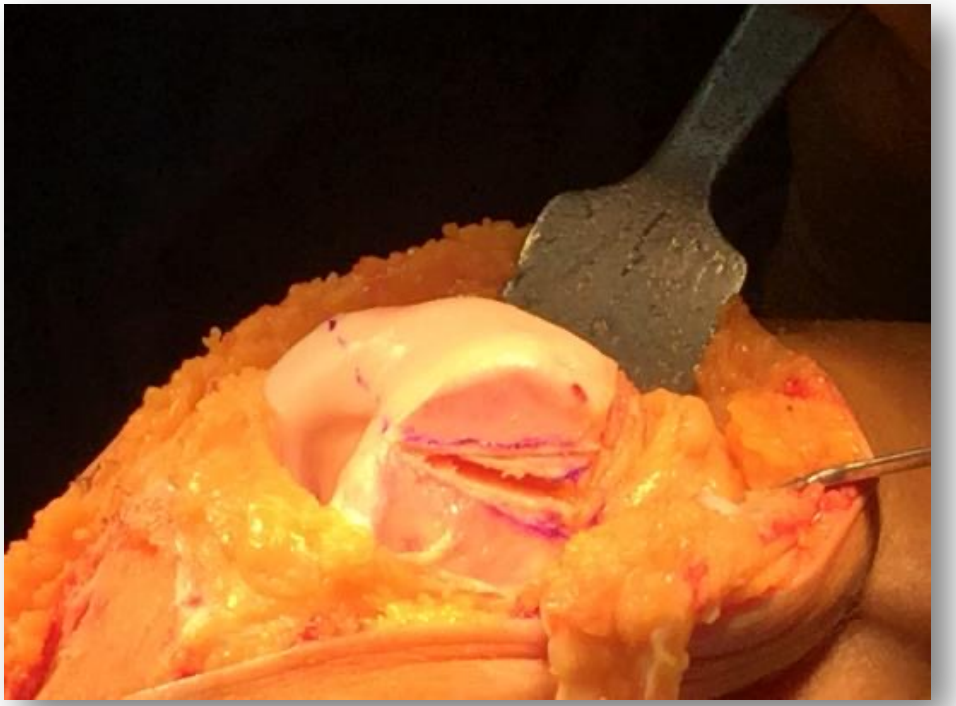
② Osteotomies



- **3-4 osteotomy cuts**
  - with oscillating saw
- Keep a distal cortical and chondral attachment intact

-Bone cuts orientation

-cartilage

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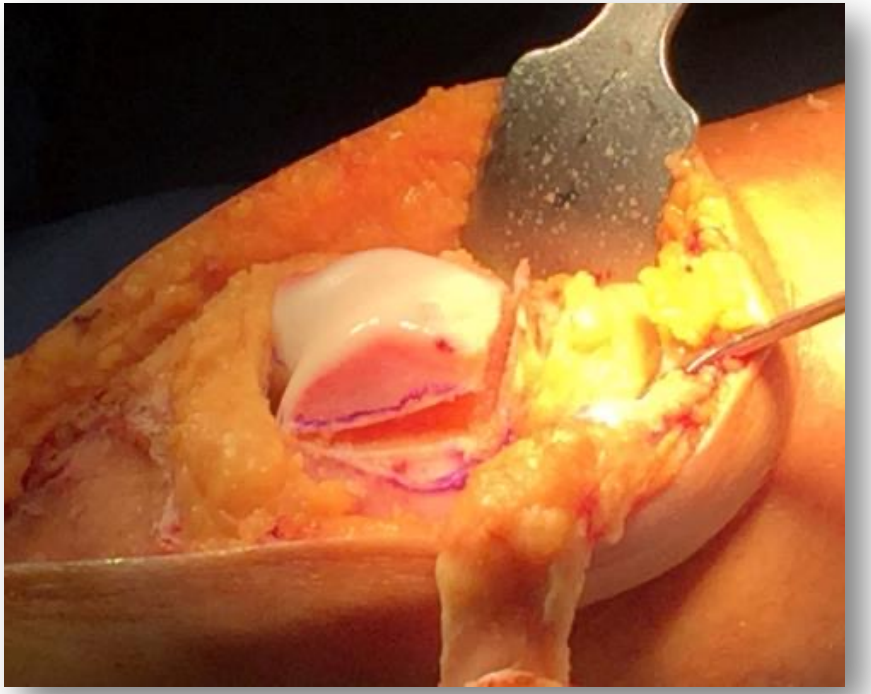
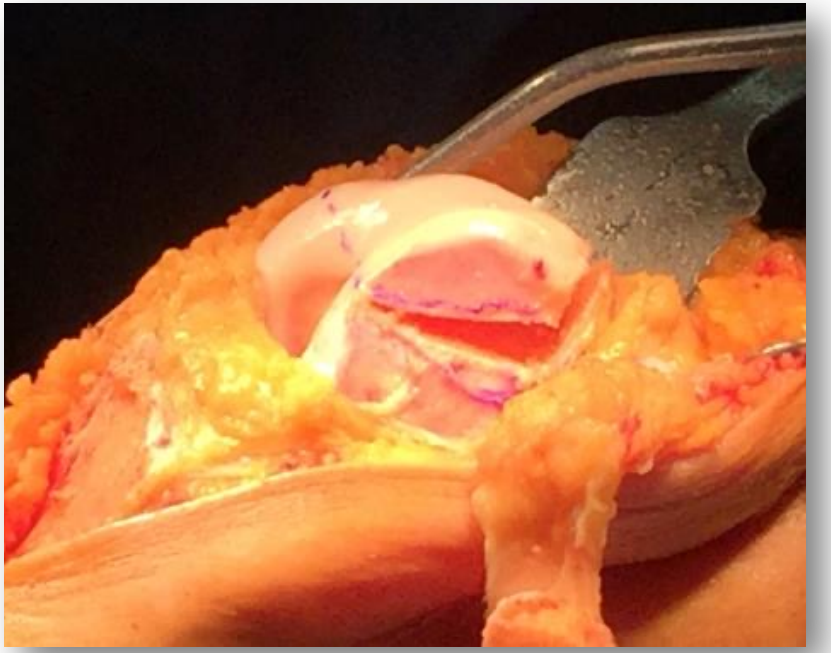
③ Removal of triangular bone



- Flush to the cartilage
- Flush to the anterior cortex



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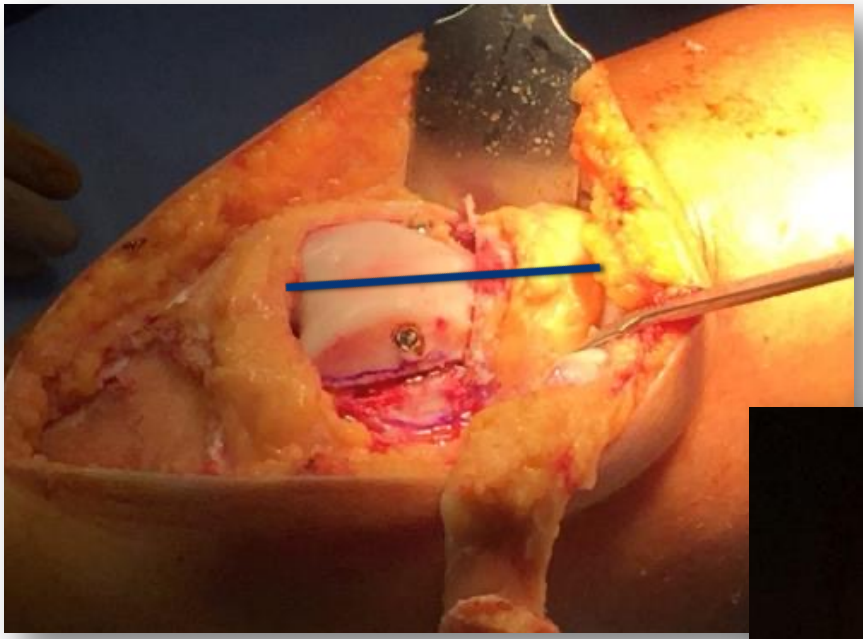
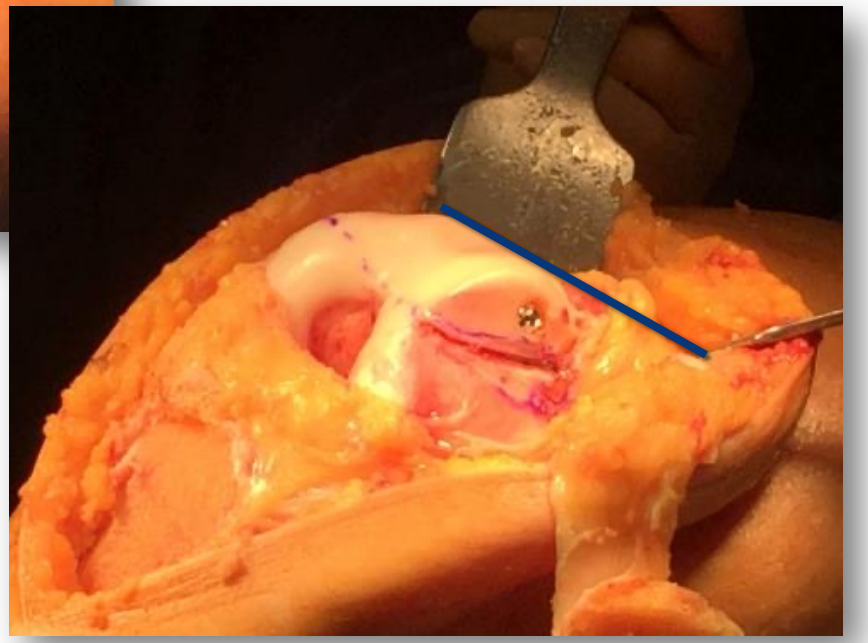
④ Fixation



- **2 cortical screws** Ø 4,5mm
  - crossing screws
  - bicortical
  - lateral to the cartilage



- **OR**
- **2 Blount staples**
  - lateral and medial

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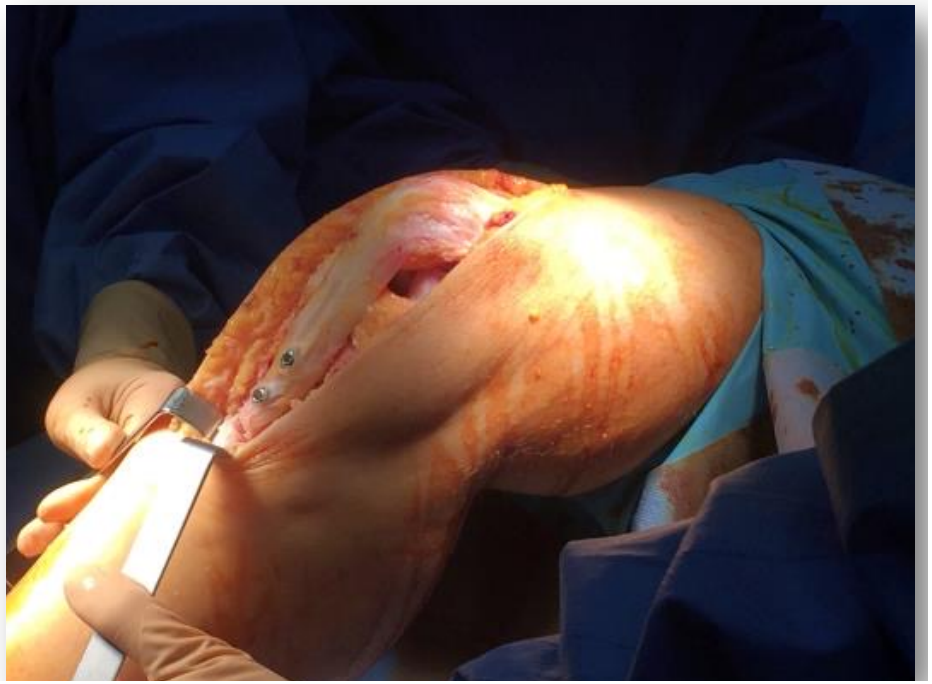
- **ATT osteotomy fixation**

  - Distalisation
  - And/or Medialisation
  - internal fixation by two 4.5mm bicortical screws

- **+/- MPFL reconstruction**

(Quad tendon)



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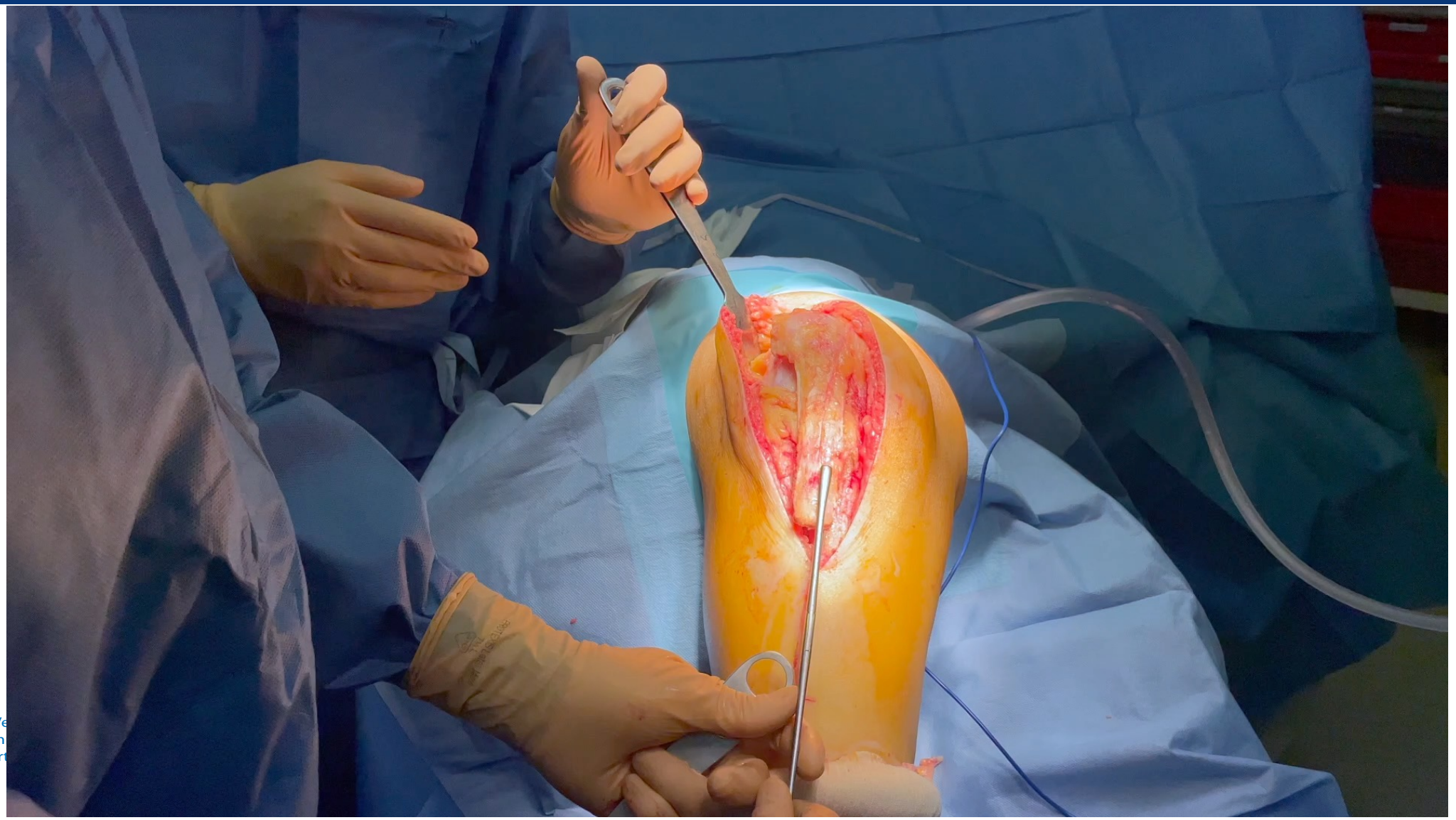

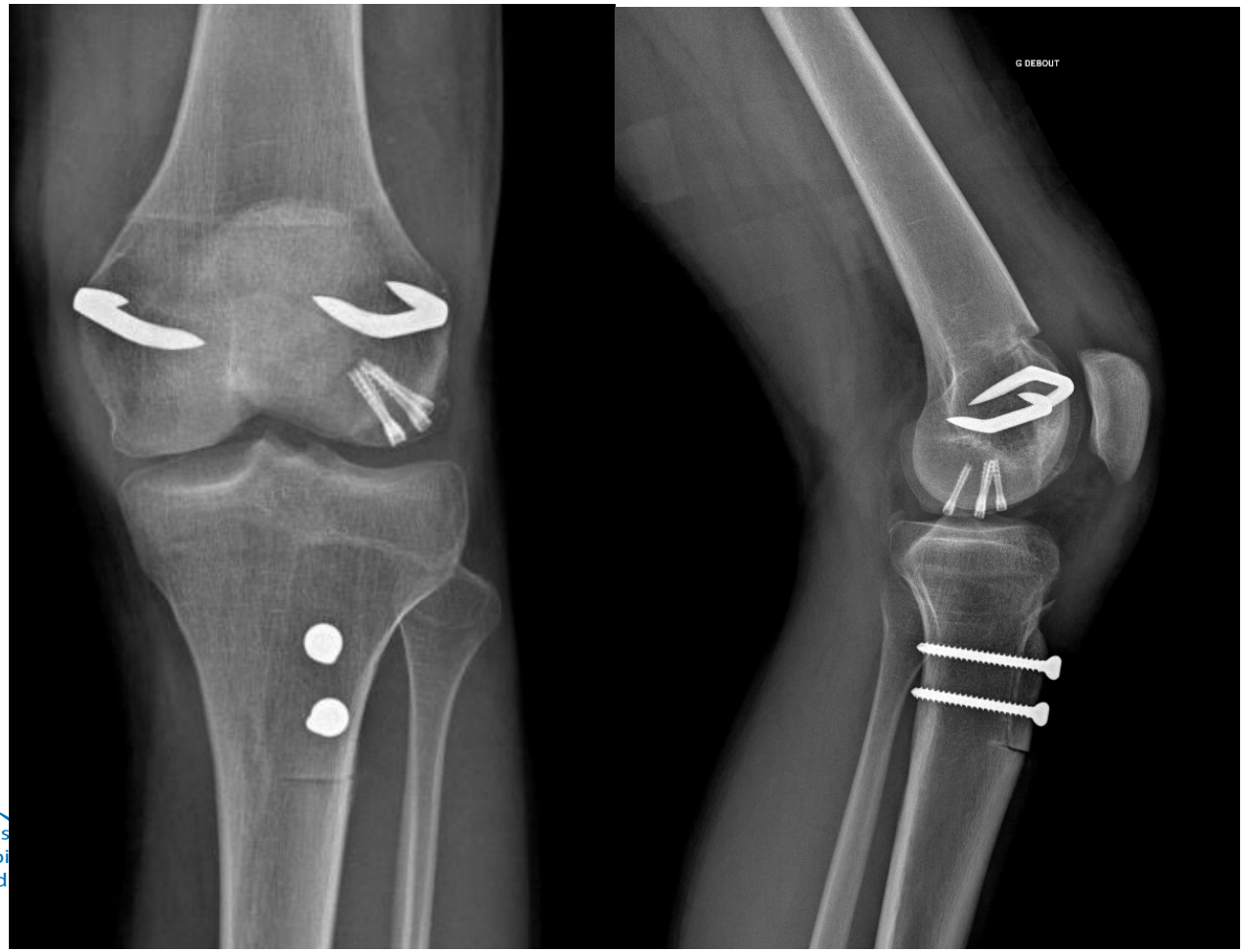

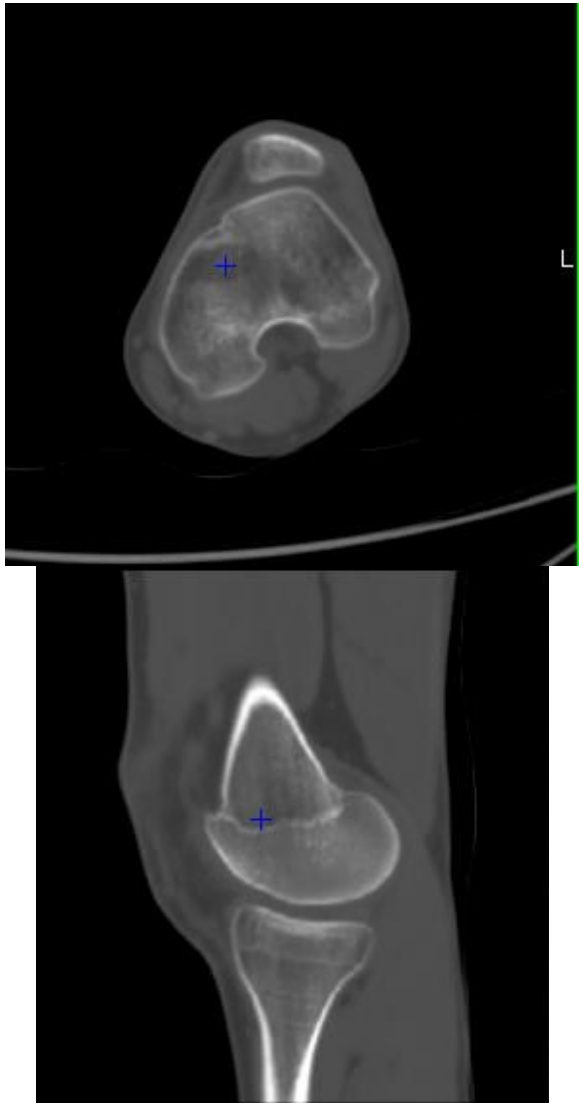

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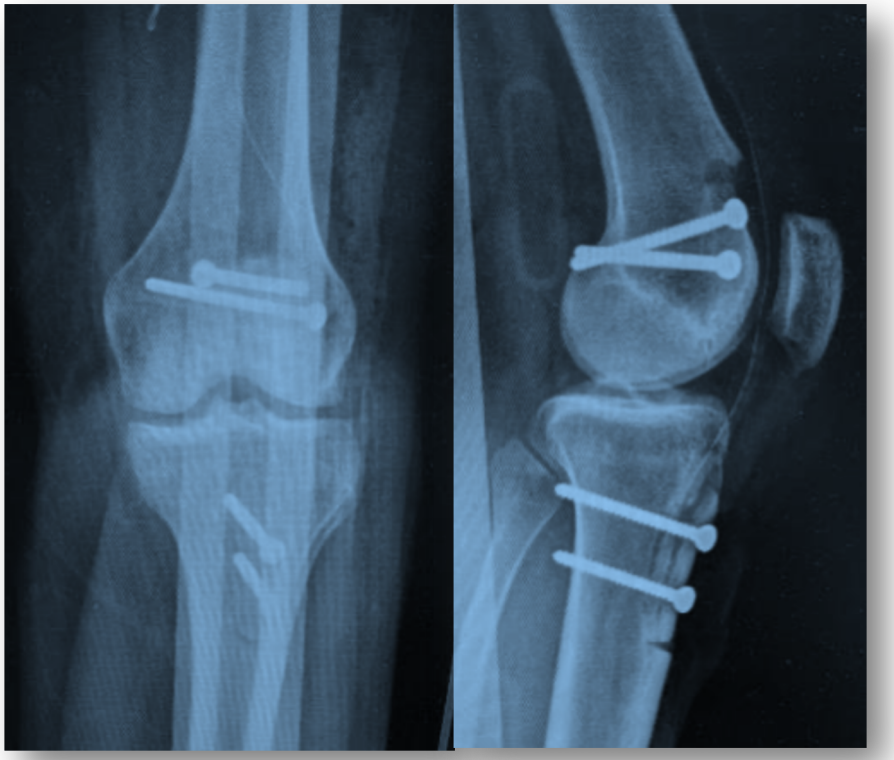
Post operative care

- « Partial/contact » weight bearing 45 days
- Cast 45 days
- Early rehab ROM 0-90°



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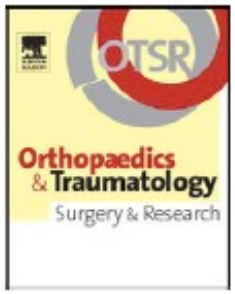
First Results



Recession wedge trochleoplasty as an additional procedure in the surgical treatment of patellar instability with major trochlear dysplasia: Early results

M. Thaunat[a,b,*], C. Bessiere[a,b], N. Pujol[a,b], P. Boisrenoult[a,b], P. Beaufils[a,b]

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Accepted: 11 July 2011

- **17 patients** *(19 knees)*

  Age 23
  FU 34 months
  First surgery x12 - revision x7

- 2 Still feel unstable

  KOOS mean 70 ±18
  IKDC mean 67 ±17

- Trochlear bump **9,1mm** preop to **3,4mm** postop

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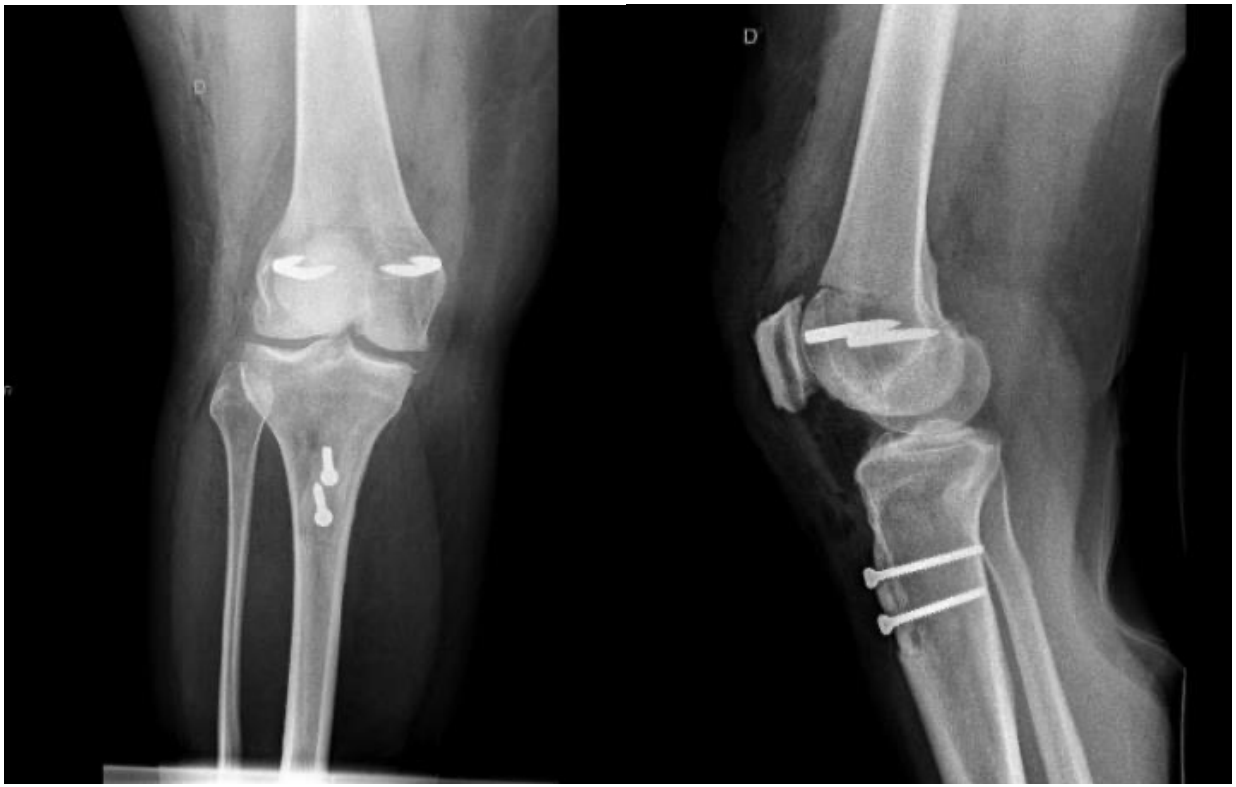
Experience

- Jan 2010- Jan 2021:
- 79 Cases

- Evolving technique:
- Two screws… Two Staples

- No Removal of material
- No post op necrosis



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INDICATIONS

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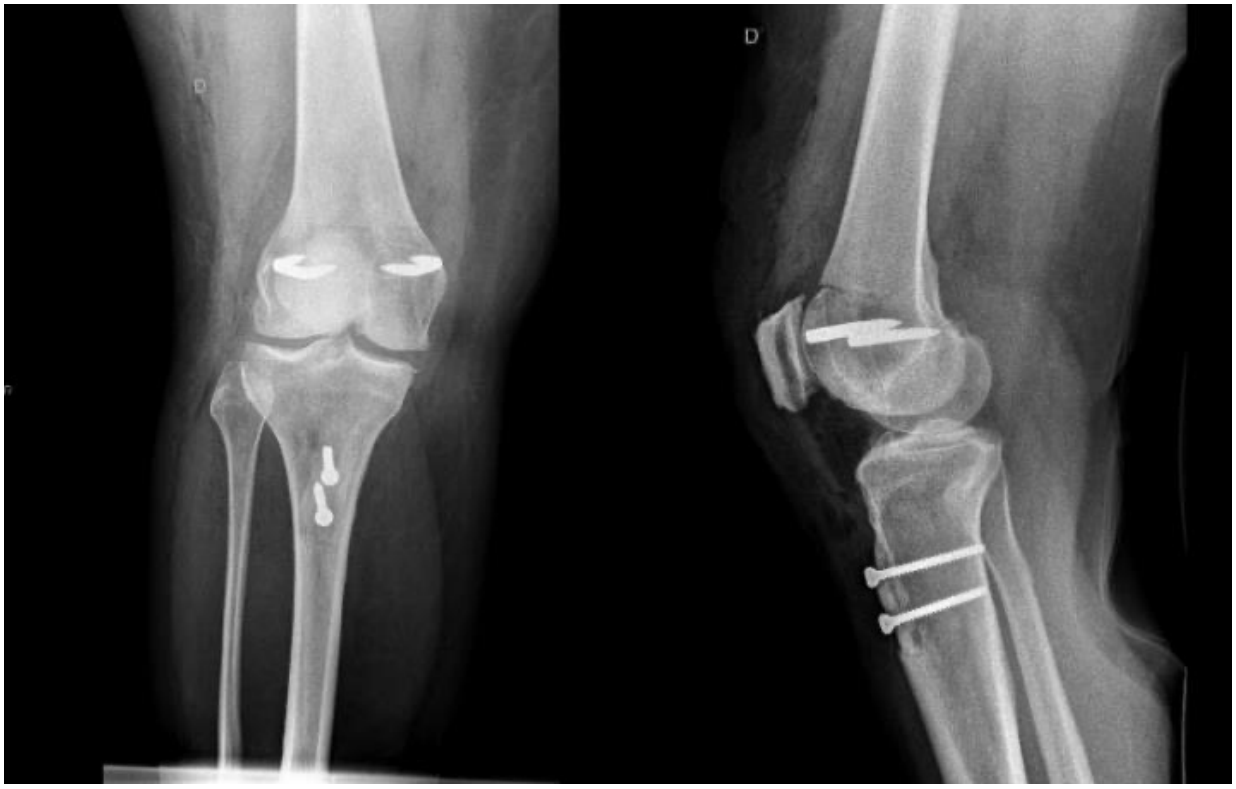
Orthopédie
VAO

Indications

- Very selected cases
- Almost Never isolated surgery
- Adults +++
- Revisions +



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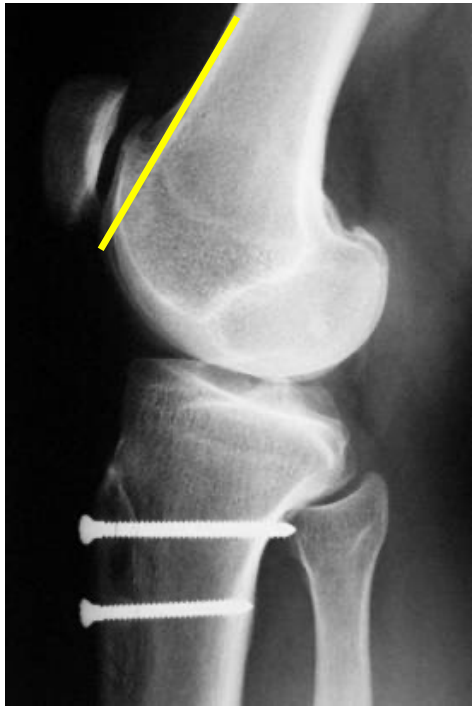
Indications

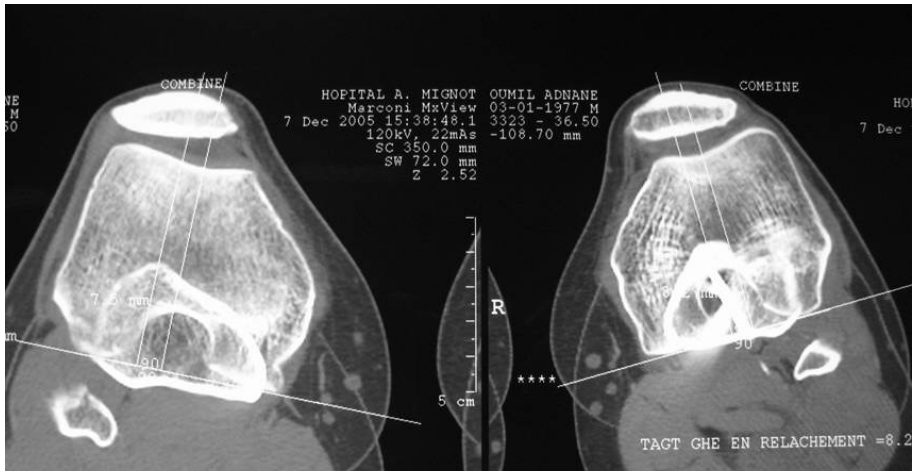
- 1- Revisions

Failure after isolated ATT transfer and/or MPFL reconstruction

AND

Trochlear dysplasia





Indications

- 2- Major Trochlear Dysplasia, Unstable patella
  - Bump >5mm
  - Associated with ATT transfer (lowering +medialisation) +- MPFL reconstruction

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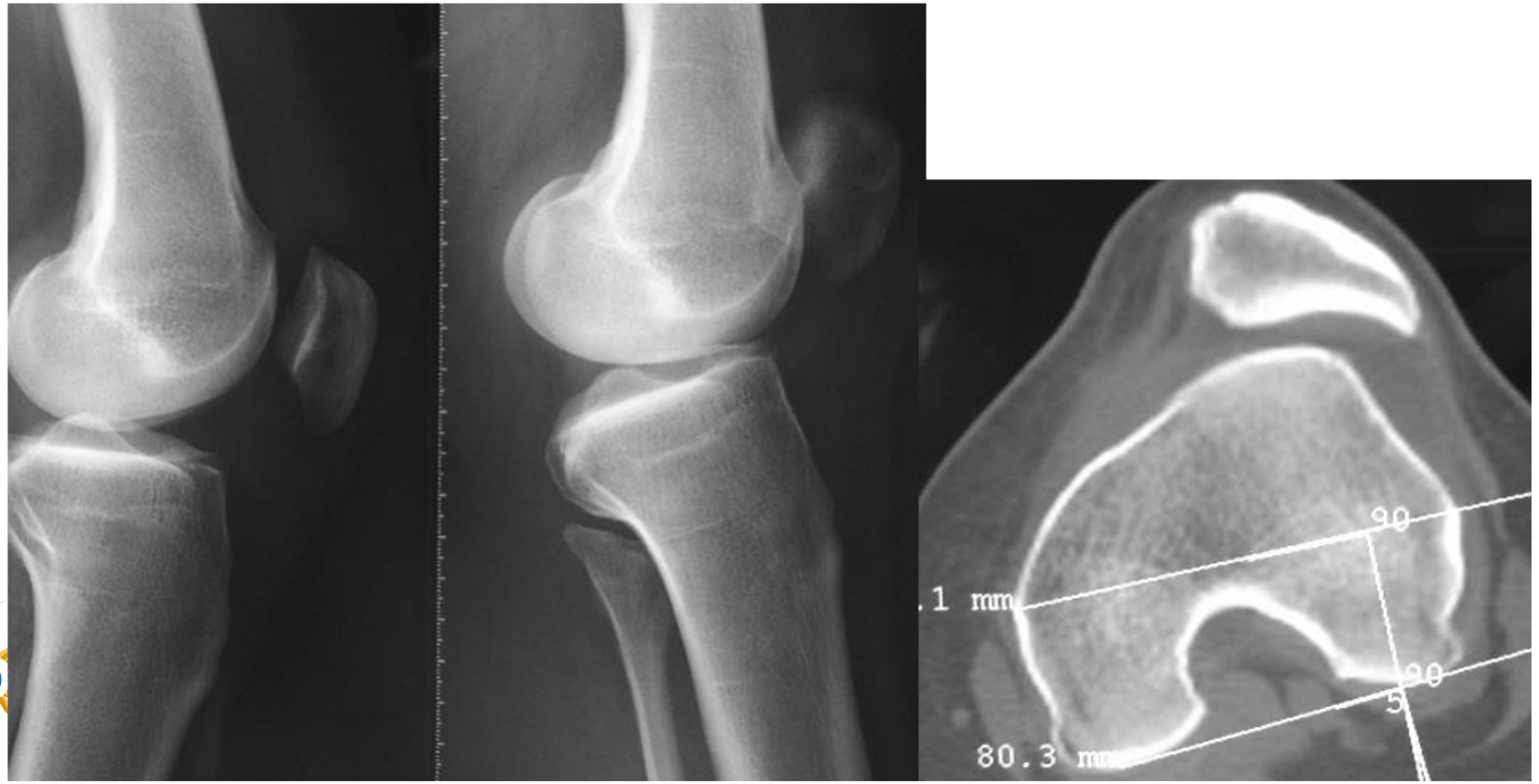
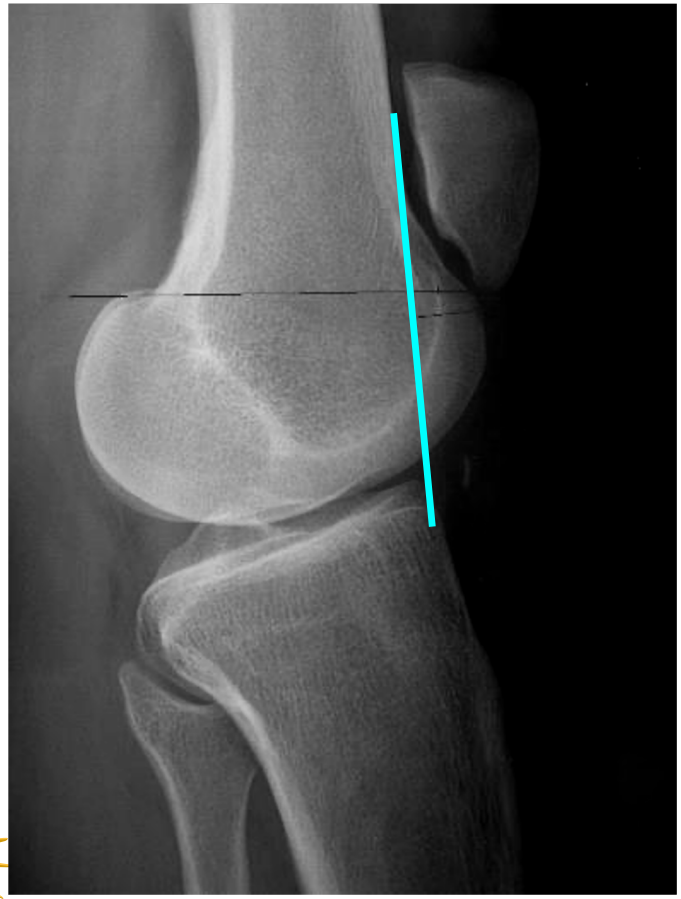
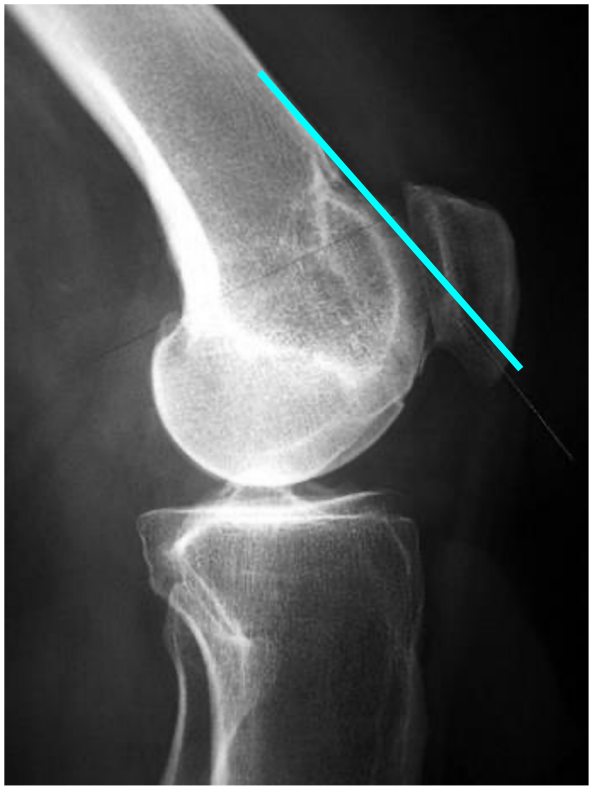
- 2- Major Dysplasia







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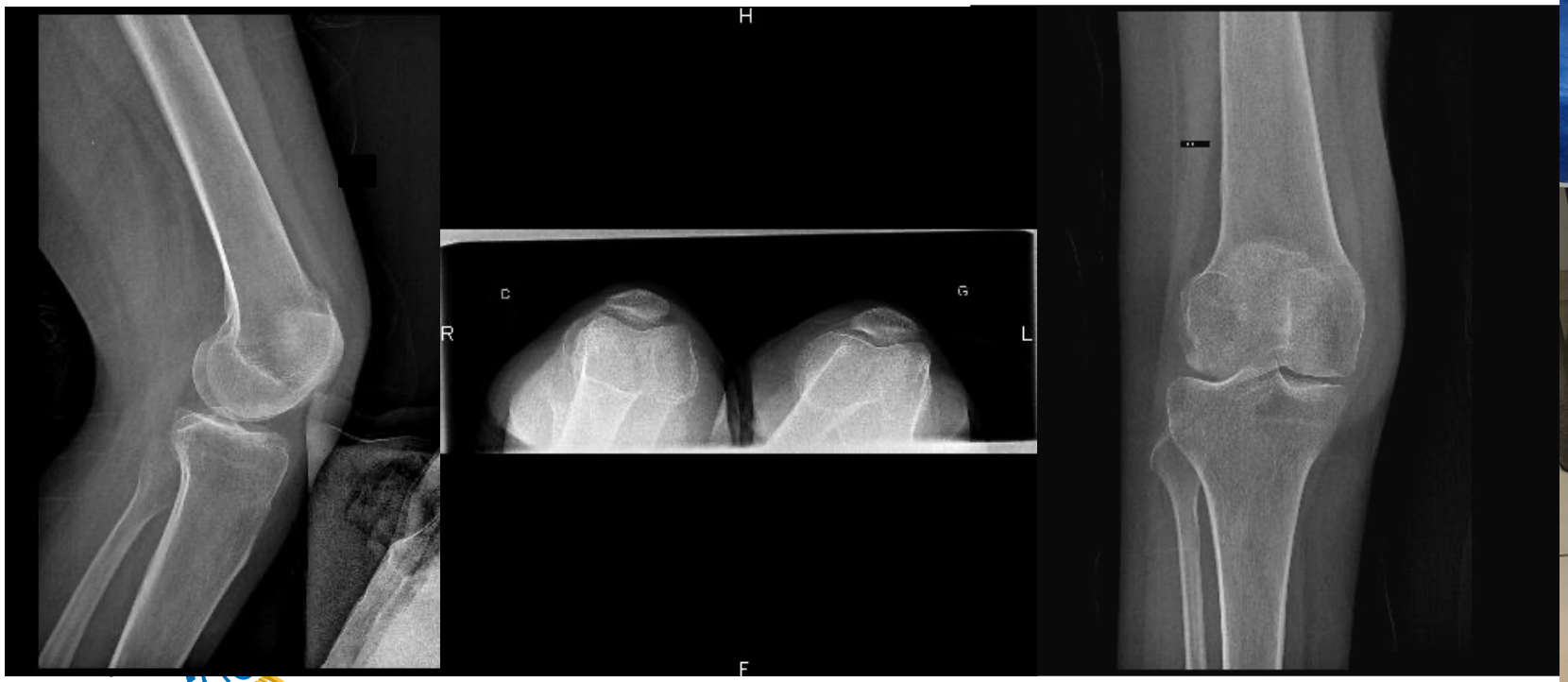
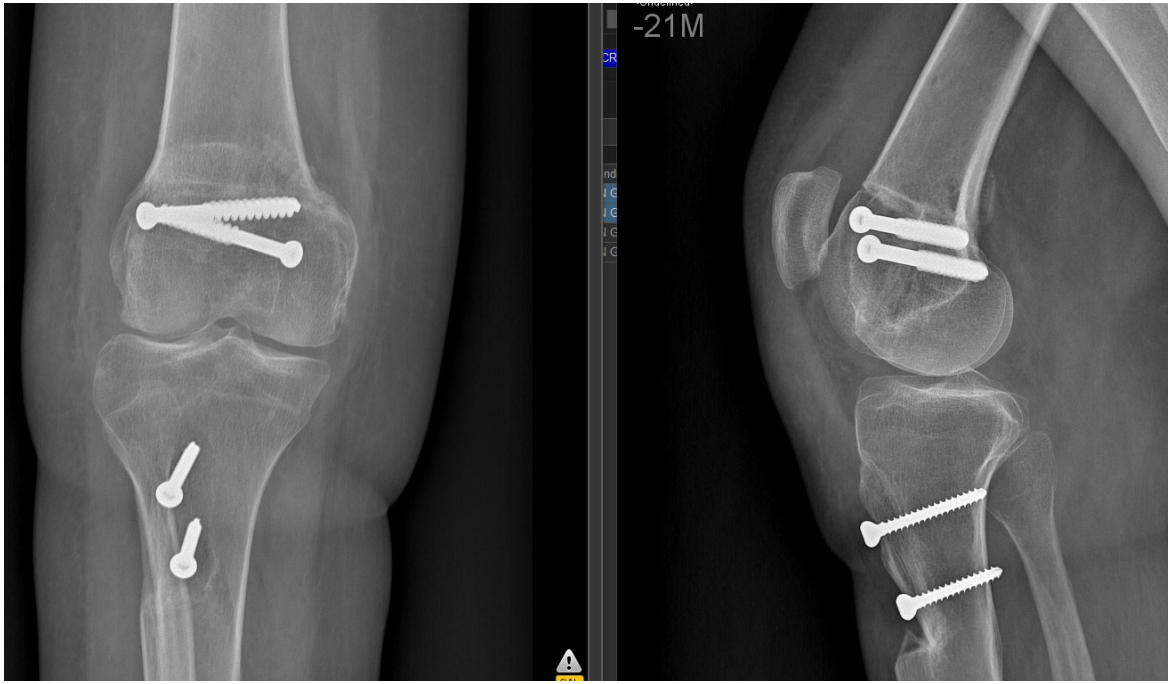
Indication

- 3- Complex cases



- 3- Complex cases



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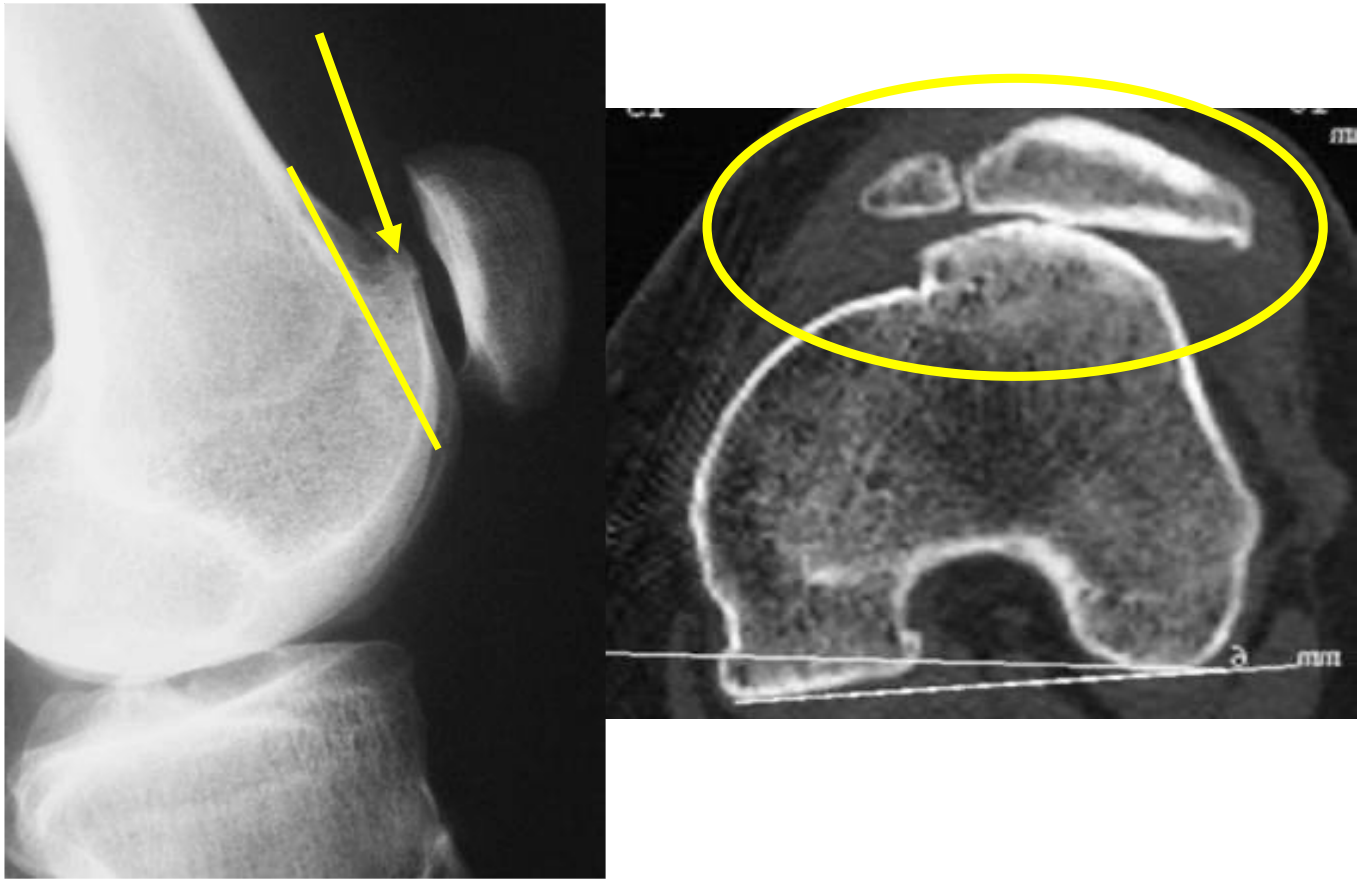
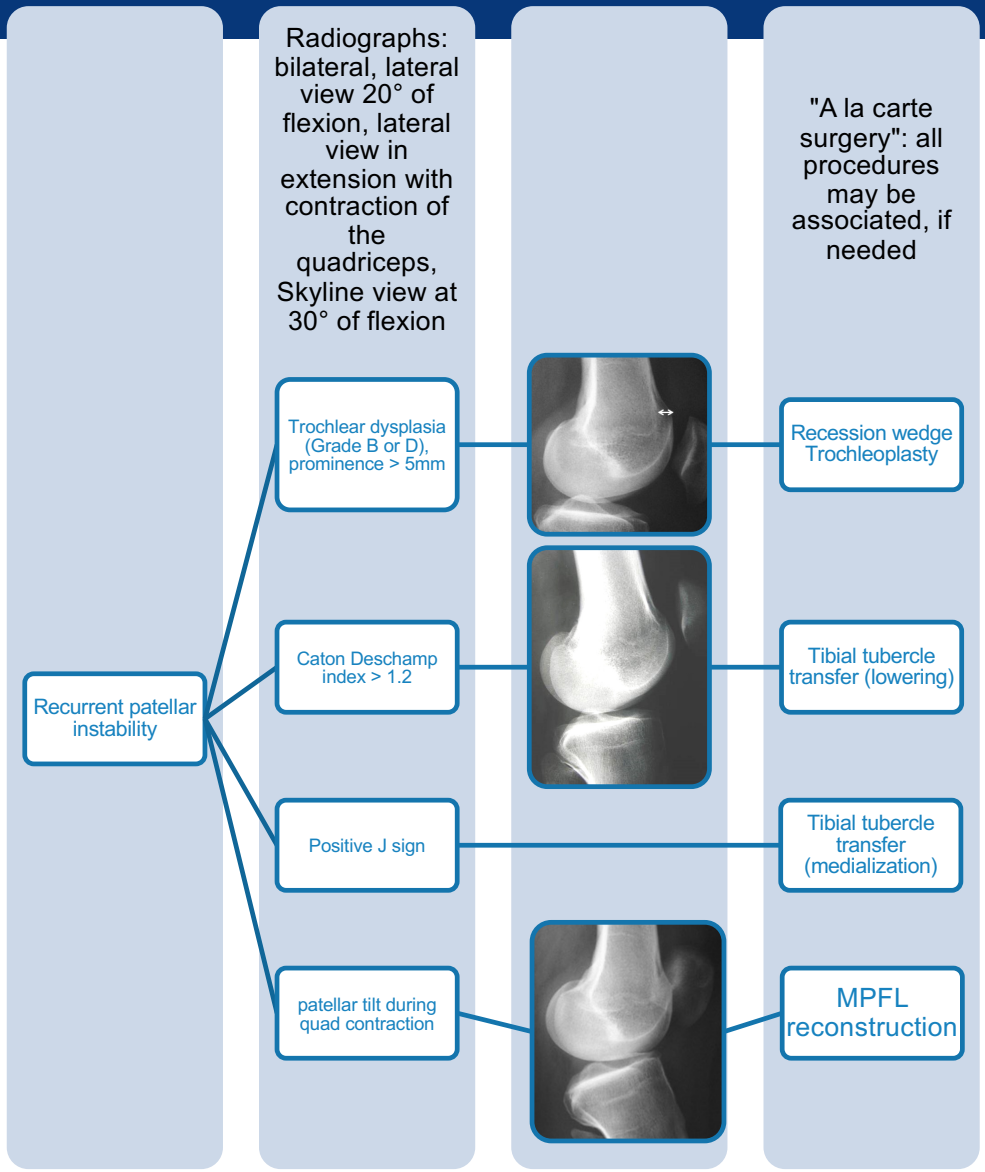
Indication

- 4- OA



« A la carte » surgery Versailles



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Take Home message

1. « Depression trochleoplasty » is not an isolated procedure.
2. In cases of Major dysplasia.
3. Trochlear protrusion > 5mm
4. Has no excessive intra or post operative morbidity
5. Is very efficient on stability
6. Improves pain on iterative surgery group
7. Not mandatory to associate MPFL reconstruction
8. Low level of OA at long-term

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