IMAGING OF LIGAMENT(ACL) REPAIR & COMPLICATIONS

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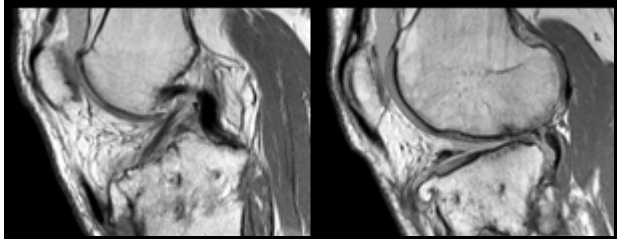
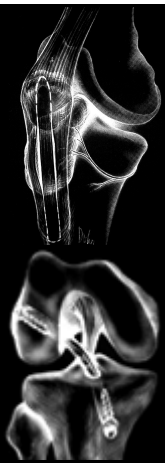
Ligament repair

- Mainly ACL
- Frequency ↑
- Aim : avoid OA due to instability



Technique

- Arthroscopic
- Mainly autograft
  - Bone – tendon – bone
  - « hamstrings »
- Tunnels- tibial
  - femoral
  + fixation



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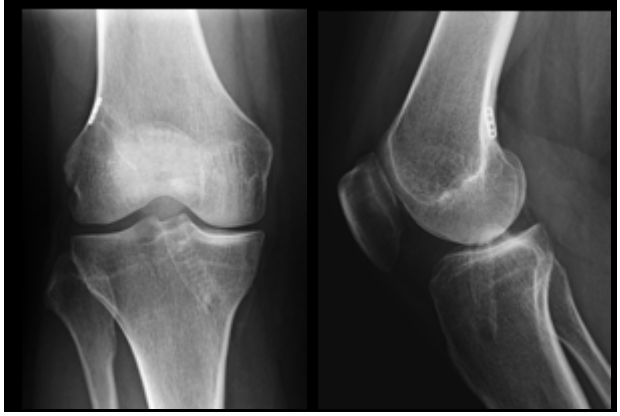

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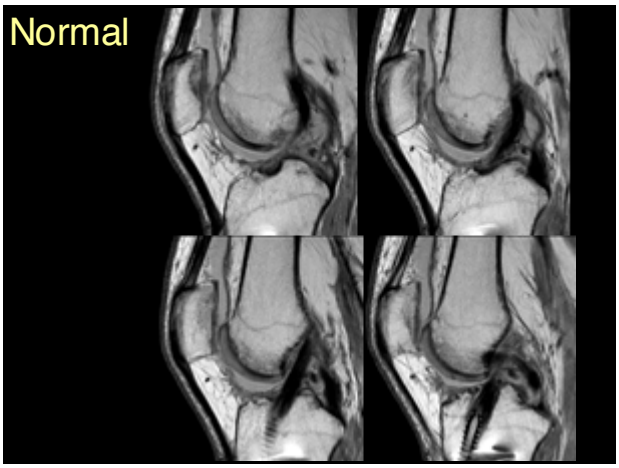

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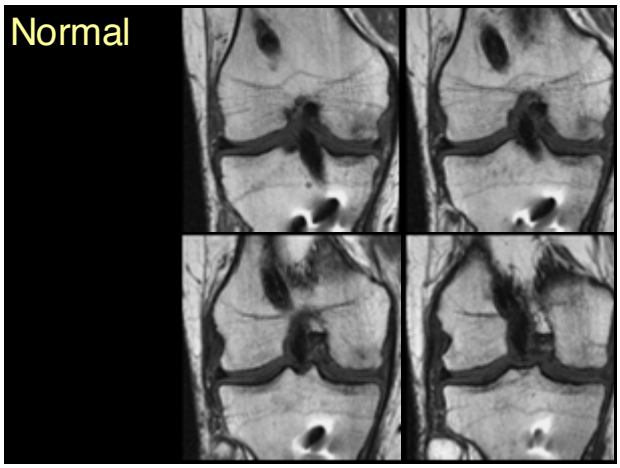

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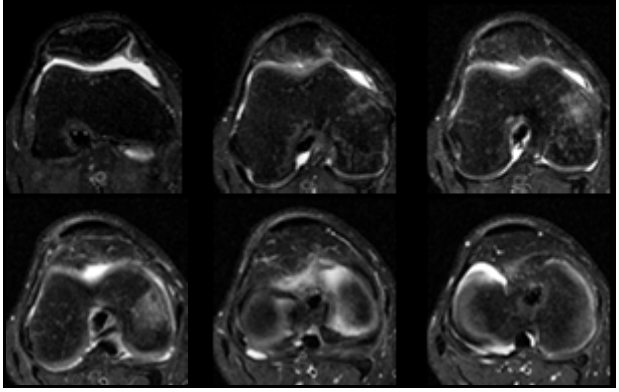

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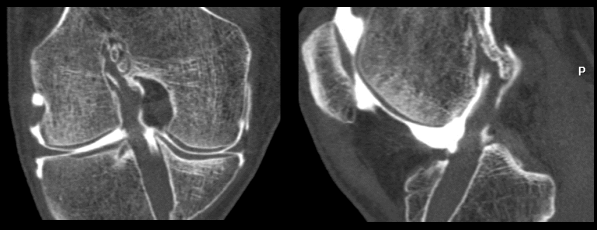
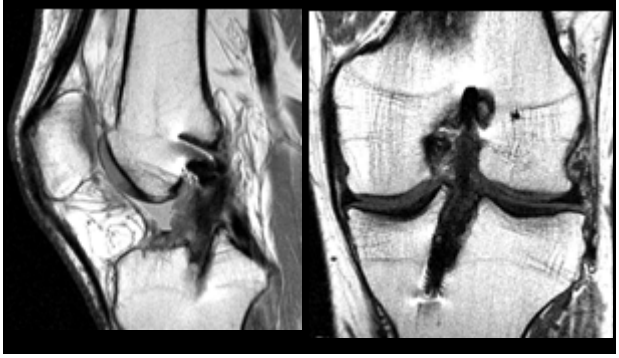
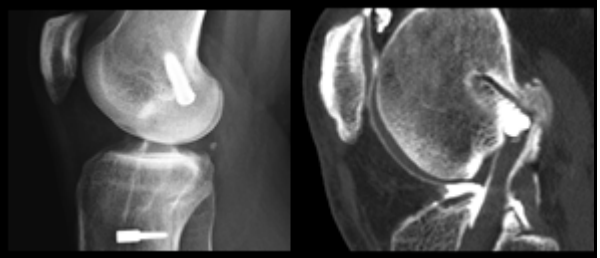
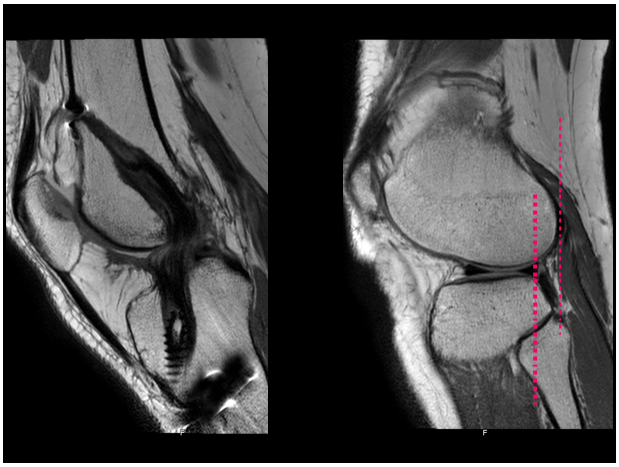


Abnormal position



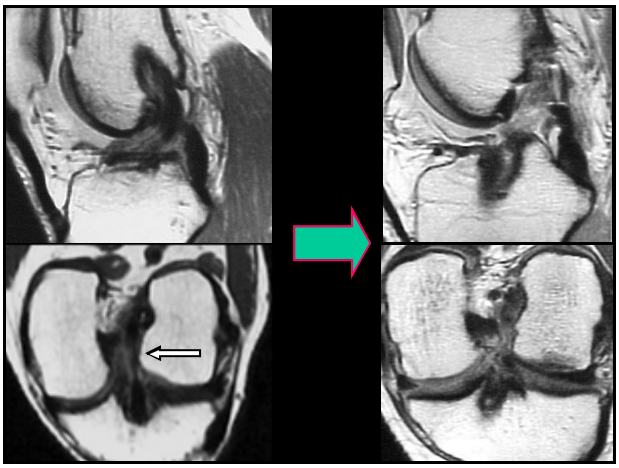




« Impingement »

- –Too anterior tibial tunnel
- –Too long graft
- –Screw, bone
- –Angulation

→Abnormal signal
→Spontaneous tear



Traumatic Re-Tear

MRI

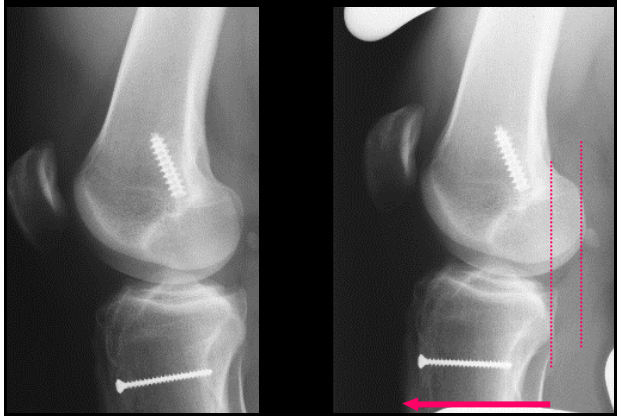
(CT arthrography)

Same signs as for native ACL

Direct
- Continuity
- Orientation
- Contours
- Signal

Indirect
- Impactions
- Ant; tib. translation

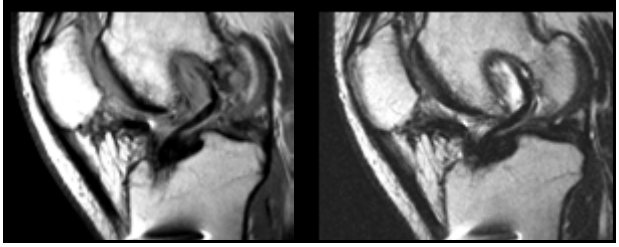
Doubt : functional evaluation

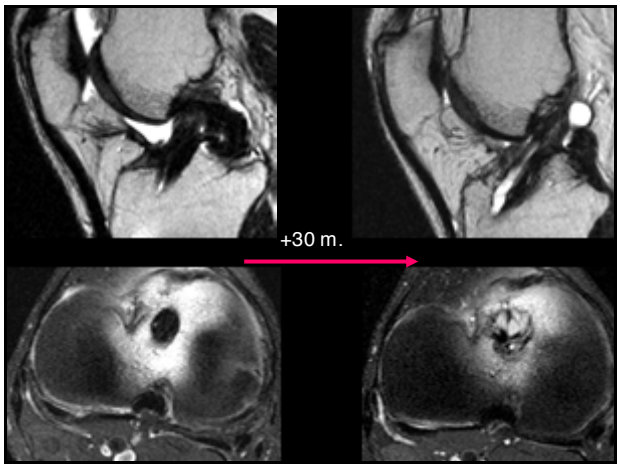


Widening and cysts

- Physiologic is possible

- Cysts : lytic reaction, bone-ligt. impingement ?





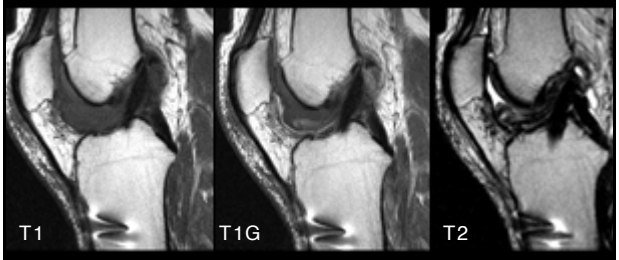
Arthrofibrosis

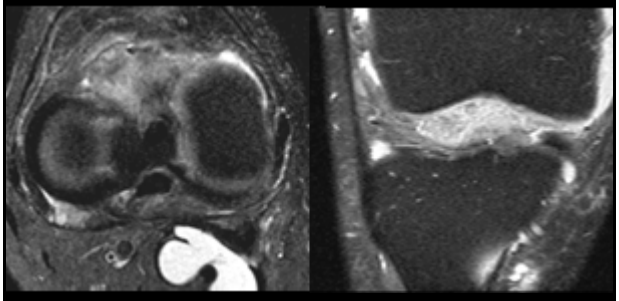
= fibrous hyperplasia due to inflammation

- « Cyclope » = localized form
  - Arthroscopic appearance
  - Histo : nodule, fibrosis, granul. t.
    (? reaction against remnants of ACL?)
- Diffuse forms

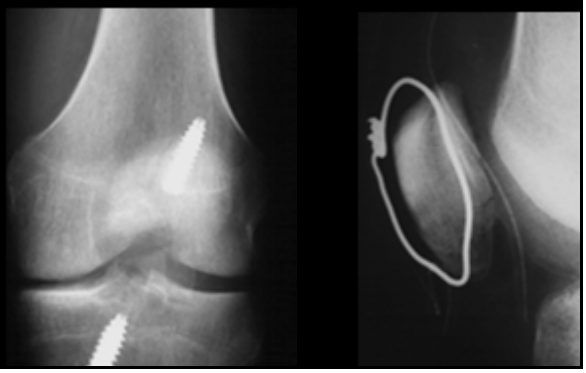
Clin : pain, functional limitation
R/ : arthroscopic debridement

Cyclope

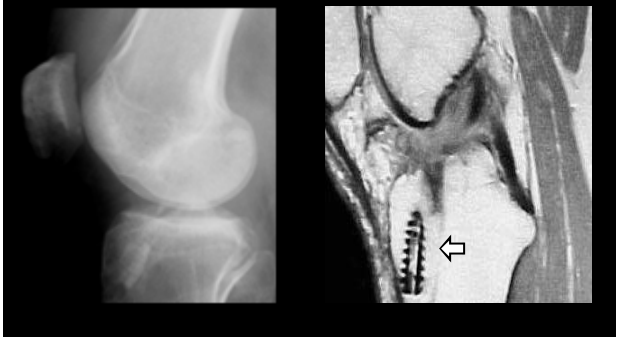




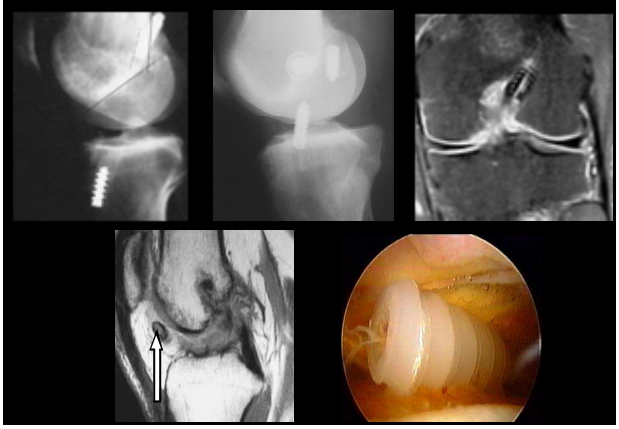
Fracture at harvest site



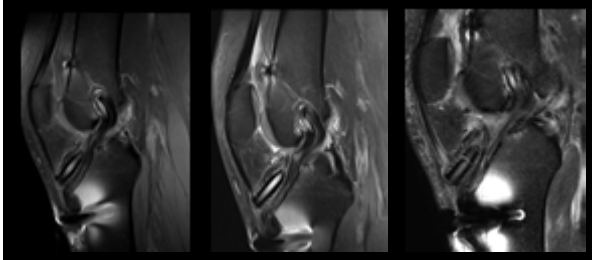
Integrity bone and screws



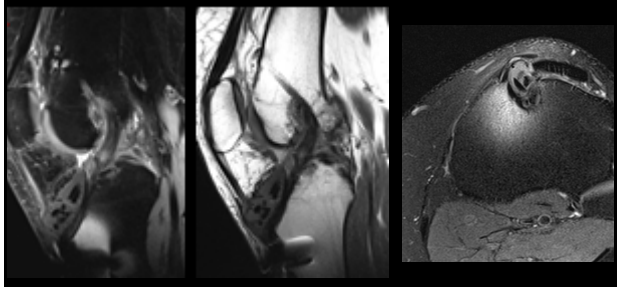
Mobilisation



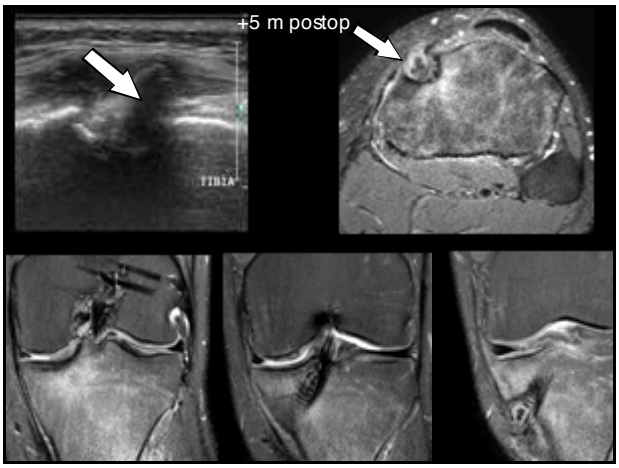
Reaction

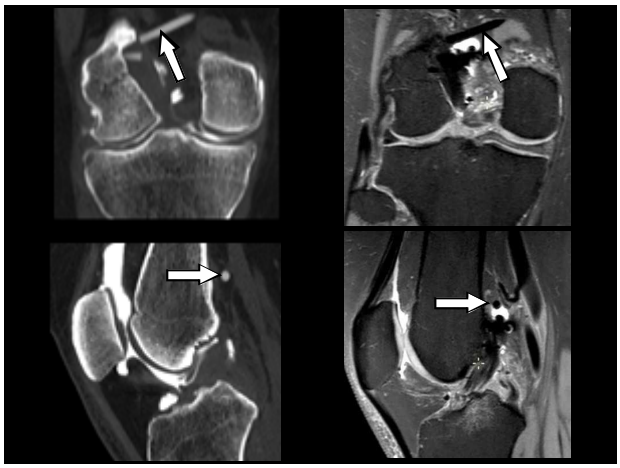


+1 y +3 y



+4 y





Complications

- Impingement
- Re-tear (trauma.)
- Cysts
- Arthrofibrosis (cyclope)
- Fracture (bone-tendon)
- Reaction or mobilisation of fixation material
- Infection, capsulitis, …
- Nervous (neuroma …)

•MRI

• CT A°

• Dynam. Xrays