



10th

Advanced Course on Knee Surgery



DIRECTORS

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*Case discussion:
Extensor Mechanism insufficiency
(instability, necrosis)*

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



Clinical Case 1

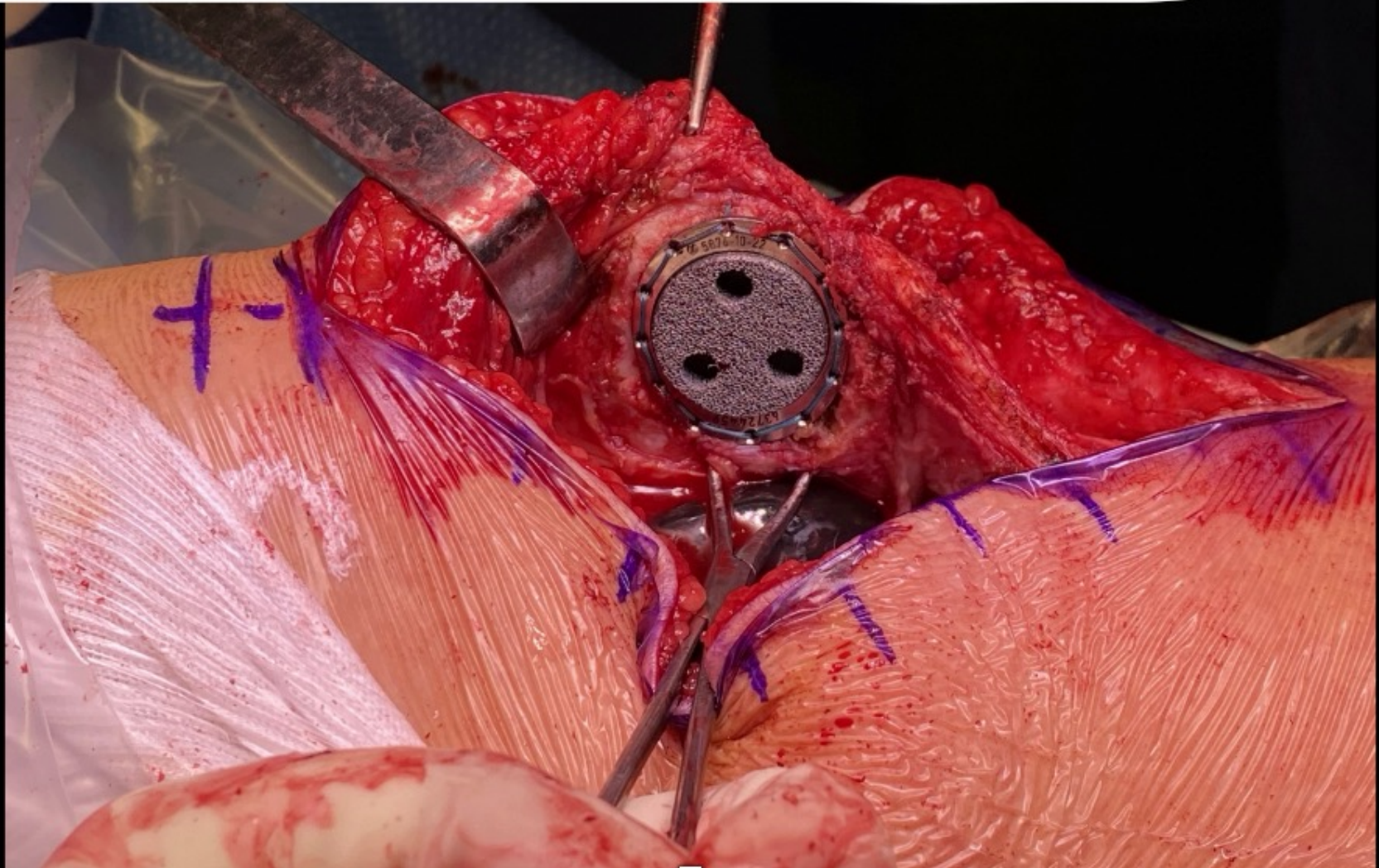
Loose Patella

Patellar component loosening

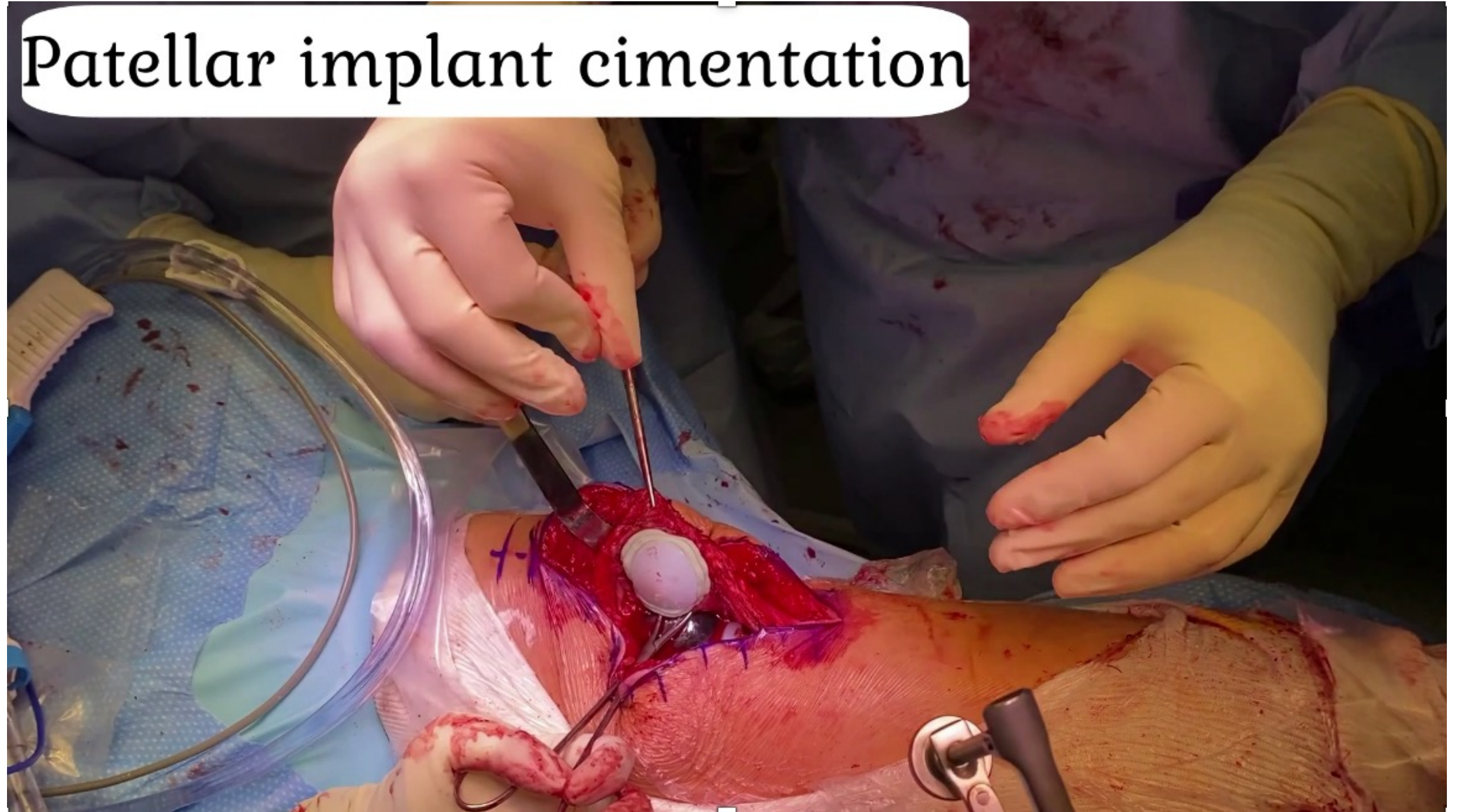


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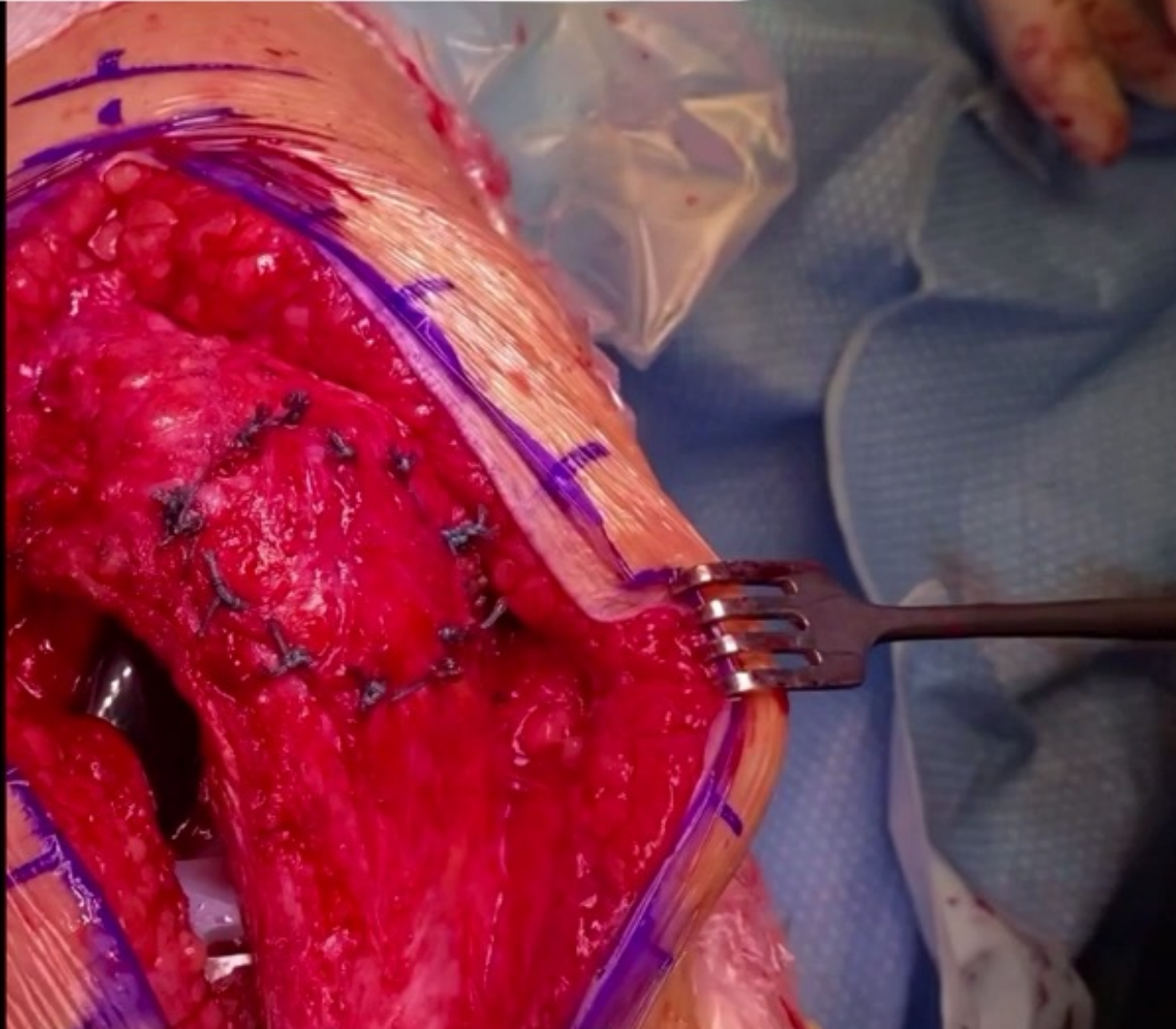
Trabecular metal augment fixation



Patellar implant cementation



Normal patellar tracking

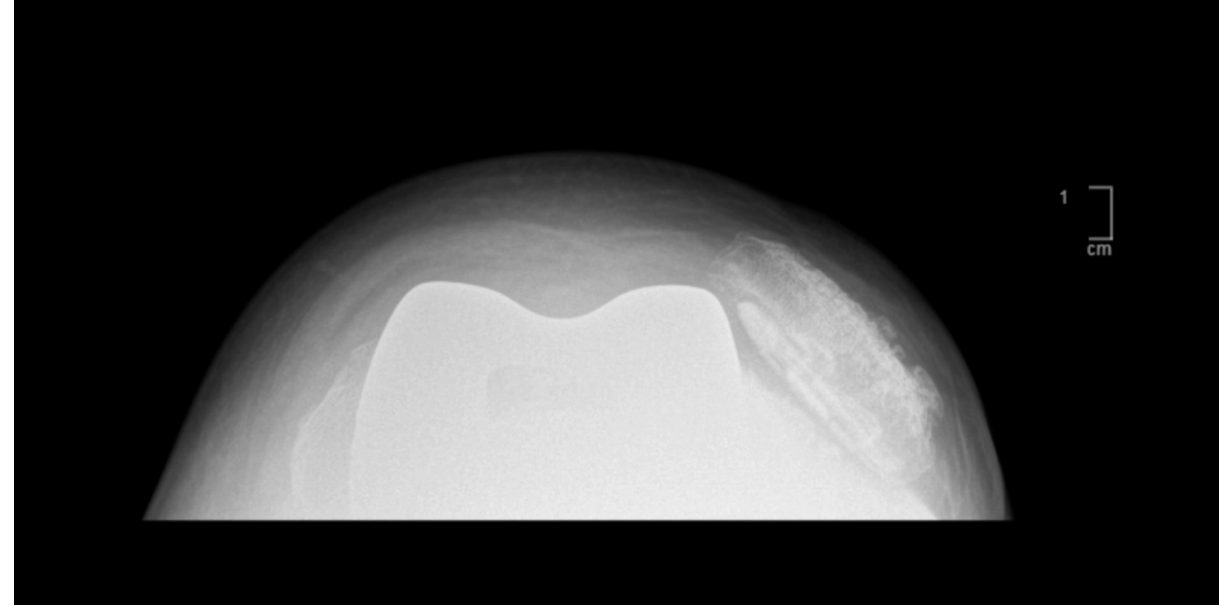


Clinical Case 2

Patella instability

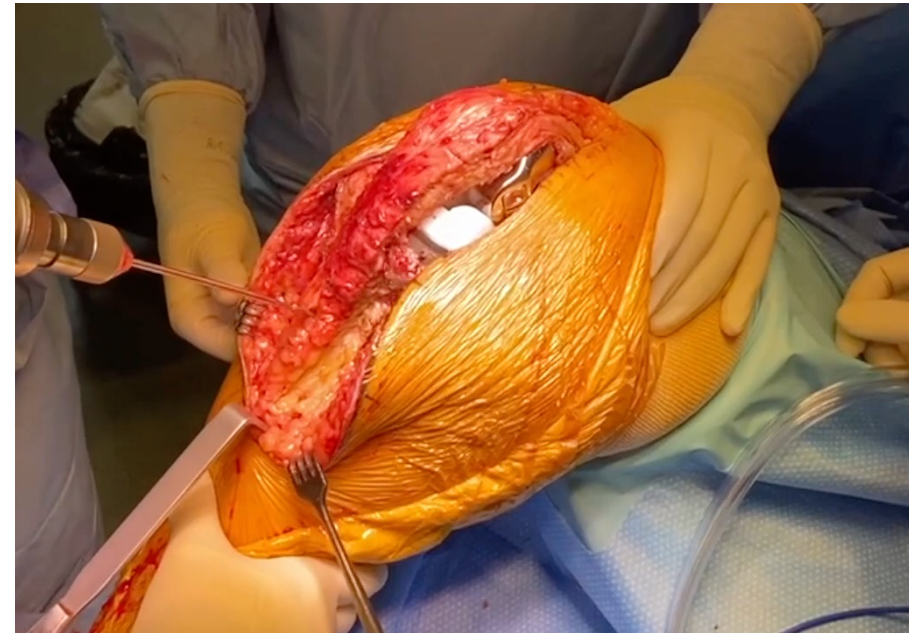
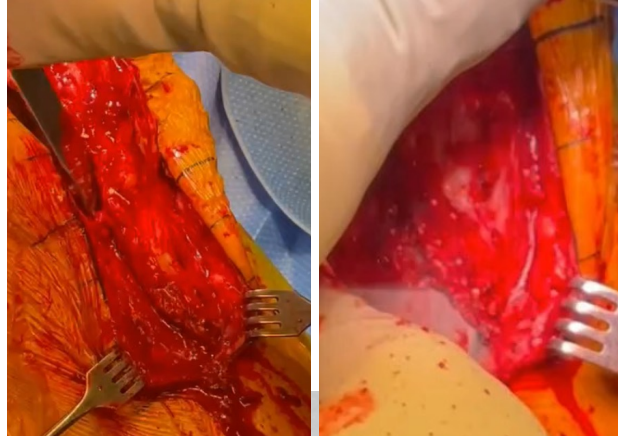
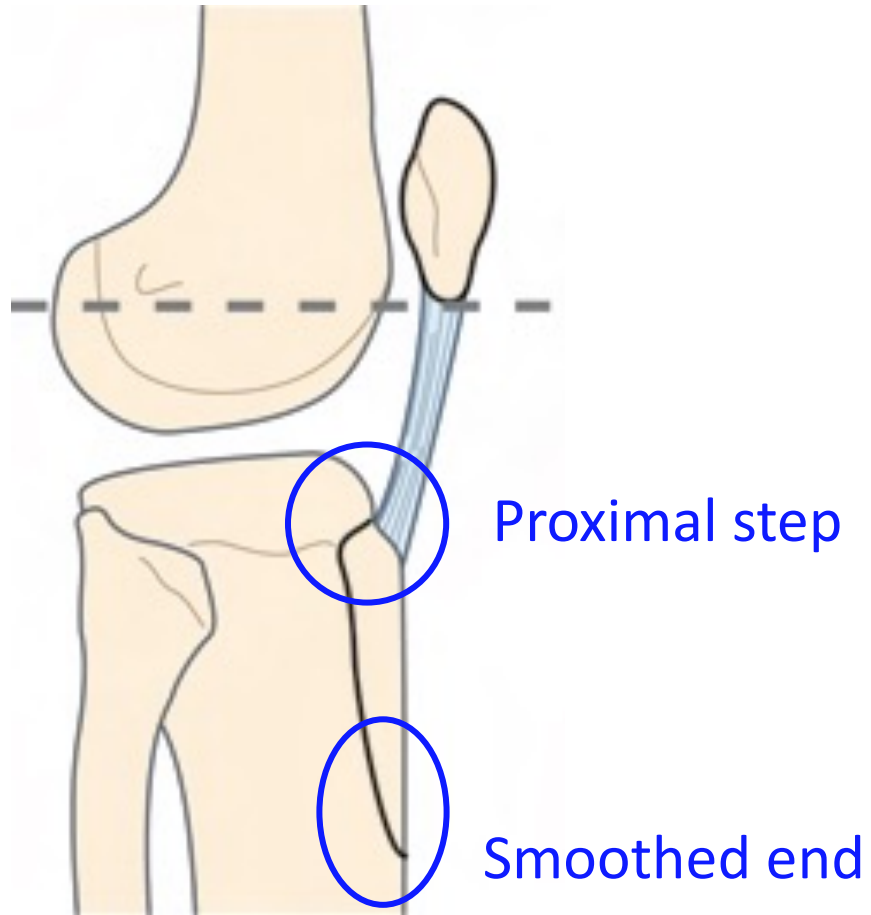
G

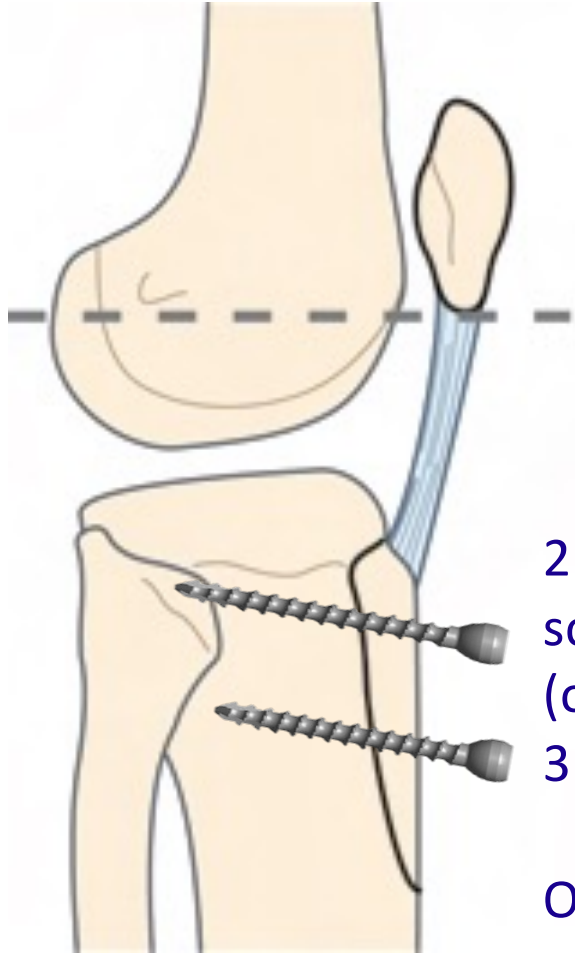




Malrotation ?

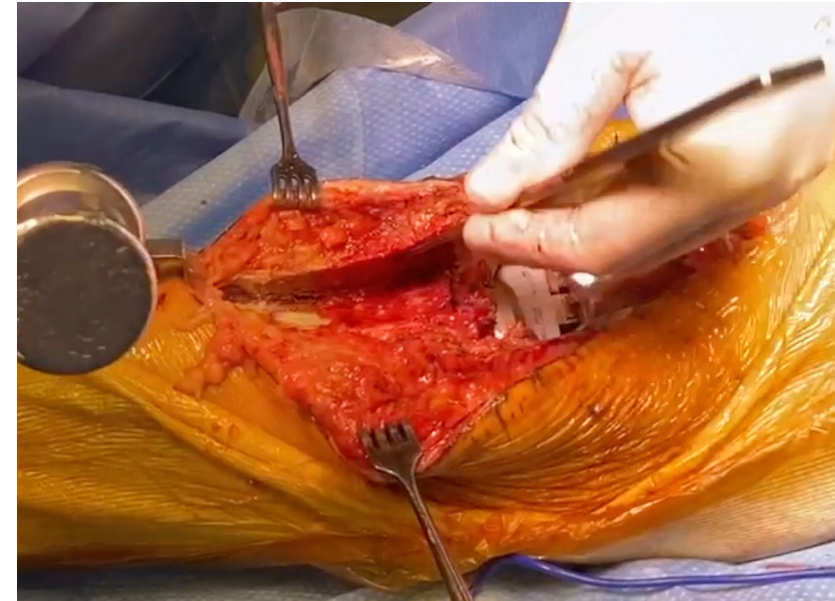
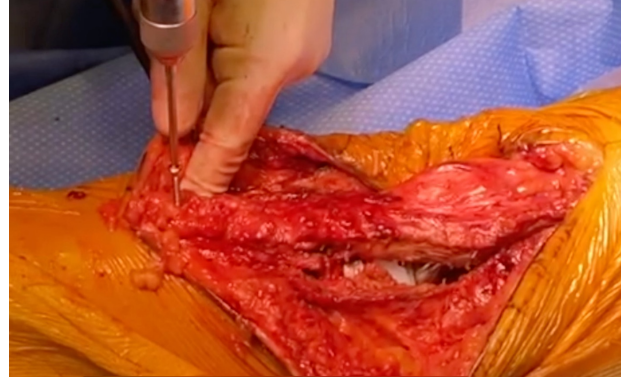
TTO



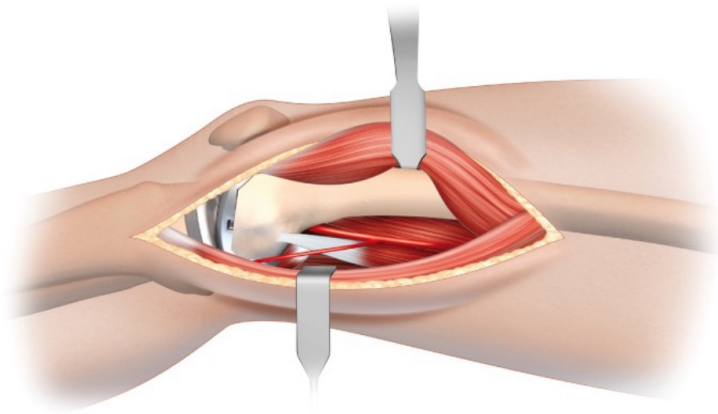
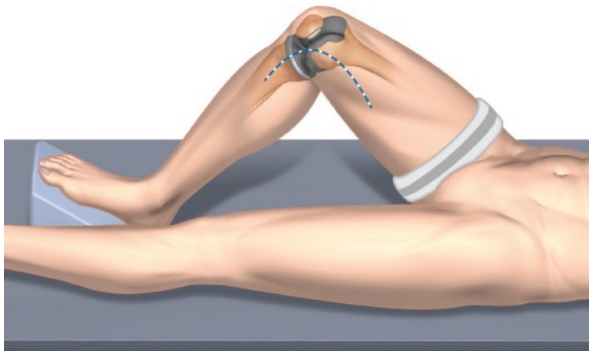


2 bottom-up
screws 4.5
(or 3 screws
3.5)

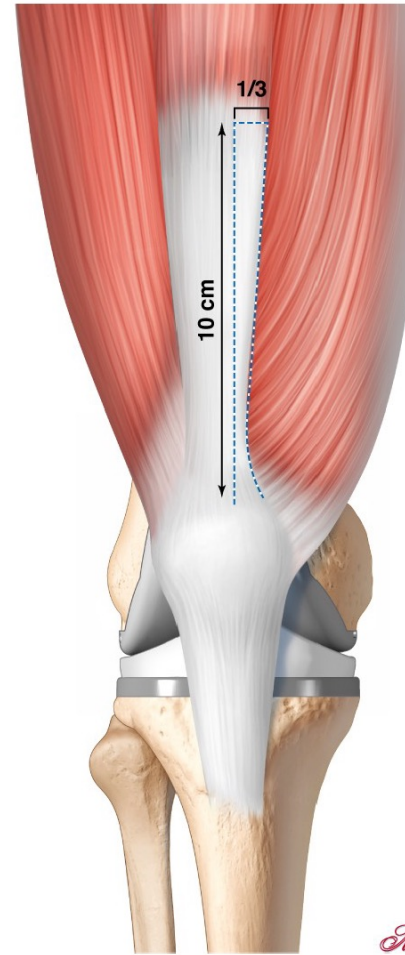
Or Wires



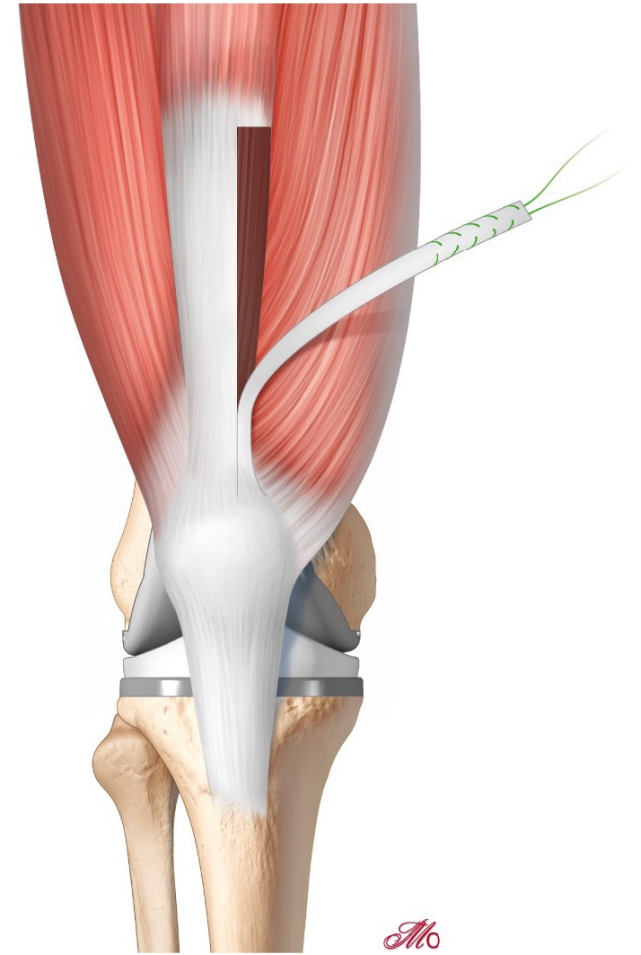
MPFL



Mo

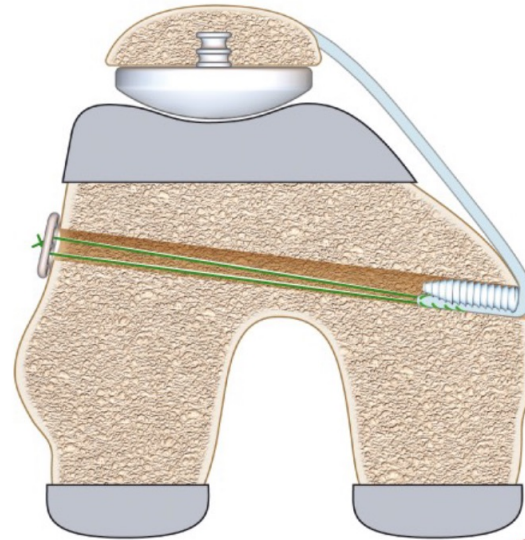
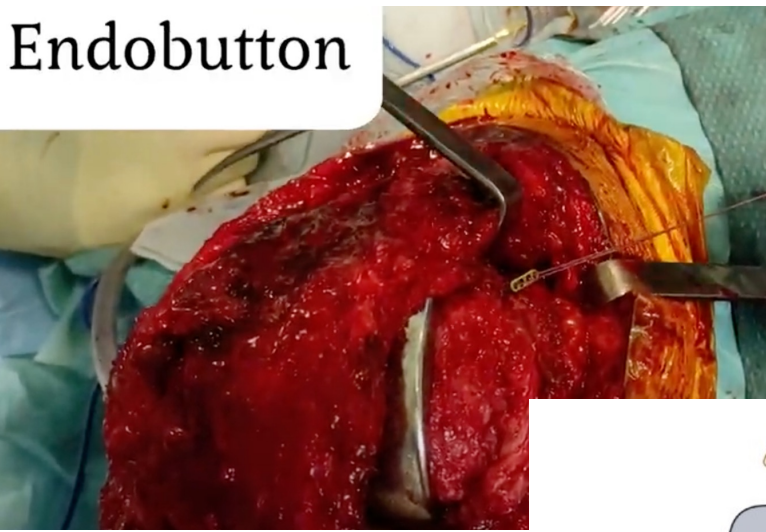


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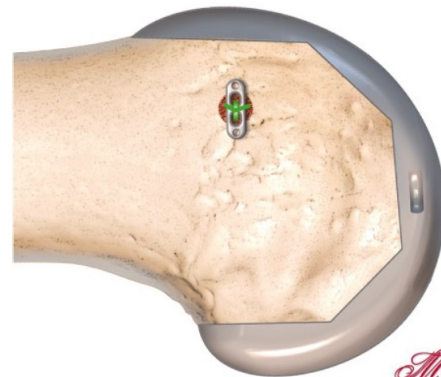


Mo

Endobutton



Mo



Mo

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SURGICAL TECHNIQUE

OPEN ACCESS

Tibial tuberosity osteotomy and medial patellofemoral ligament reconstruction for patella dislocation following total knee arthroplasty: A double fixation technique

Jobe Shatrov¹, Antoine Colas¹, Gaspard Fournier¹, Cécile Batailler^{1,2}, Elvire Servien^{1,2}, and Sébastien Lustig^{1,2,*}

Arthroplasty Today 16 (2022) 130–139

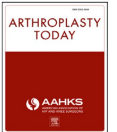


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Arthroplasty Today

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Original Research

Can Patella Instability After Total Knee Arthroplasty be Treated With Medial Patellofemoral Ligament Reconstruction?

Jobe Shatrov, MBBS (Hons), Bsc^{a,b,*}, Antoine Colas, MD^a, Gaspard Fournier, MD^a, Cécile Batailler, PhD, MD^{a,c}, Elvire Servien, PhD, MD^{a,d}, Sébastien Lustig, PhD, MD^{a,c}

Clinical Case 3

Patella Fracture

- 71 yo
- 83 Kg - 1.63m Active patient

- 2013: primary TKA

- 4 months after surgery: patellar fracture /patellar tendon rupture during rehabilitation
- ORIF (failure)



Physical examination:

- Gap below the patella,
- ROM: 0/0/130,
- Active extension deficit (AED): 40°,
- No sagittal or frontal laxity.

What surgical option do you choose?

- 1- Suture, reinforced by Hamstring graft or PDS band
- 2- Reconstruction by artificial ligament (Hanssen)
- 3- Extensor mechanism autograft
- 4- Extensor mechanism allograft
- 5- Achilles tendon allograft
- 6- Revise TKA + extensor mechanism reconstruction

What is your aim in patella positioning ?

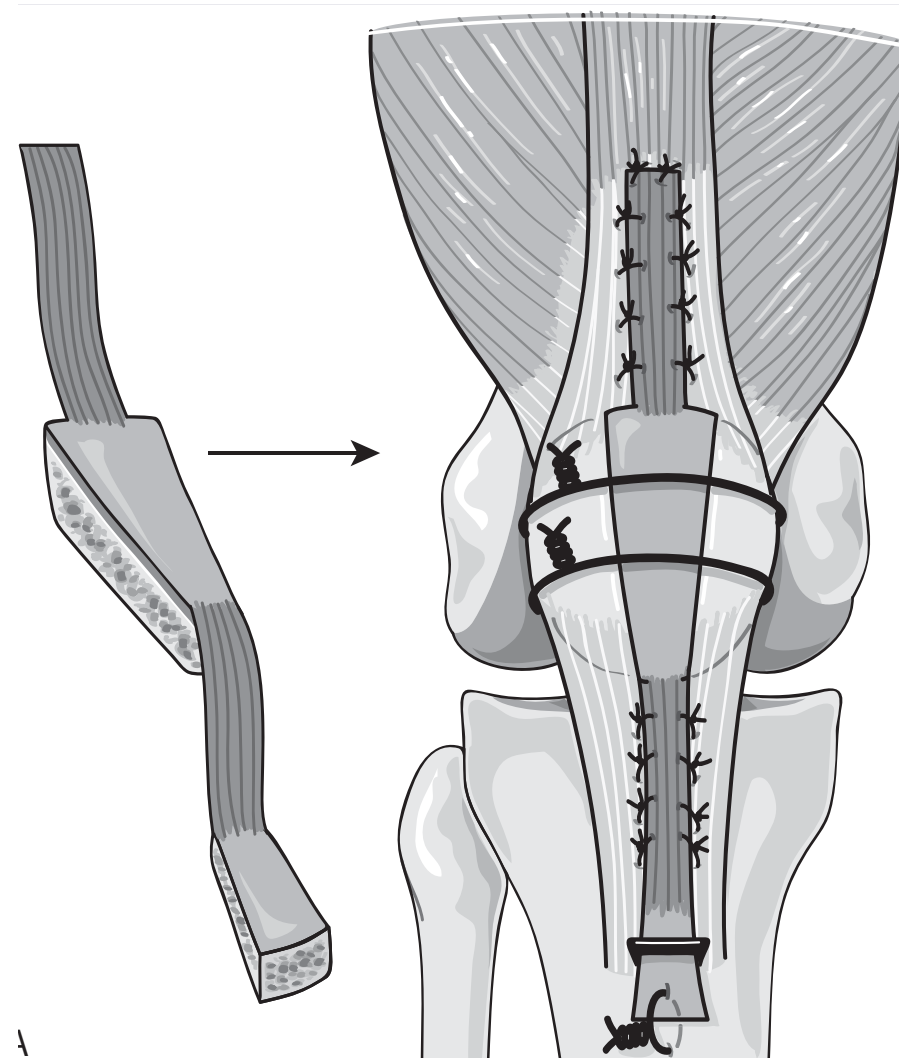
- 1- No lowering of patella
- 2- At the lowest possible level for good patellar tracking
- 3- Target: Caton Deschamps index ≤ 1.2
- 4- Target: Contralateral patellar height

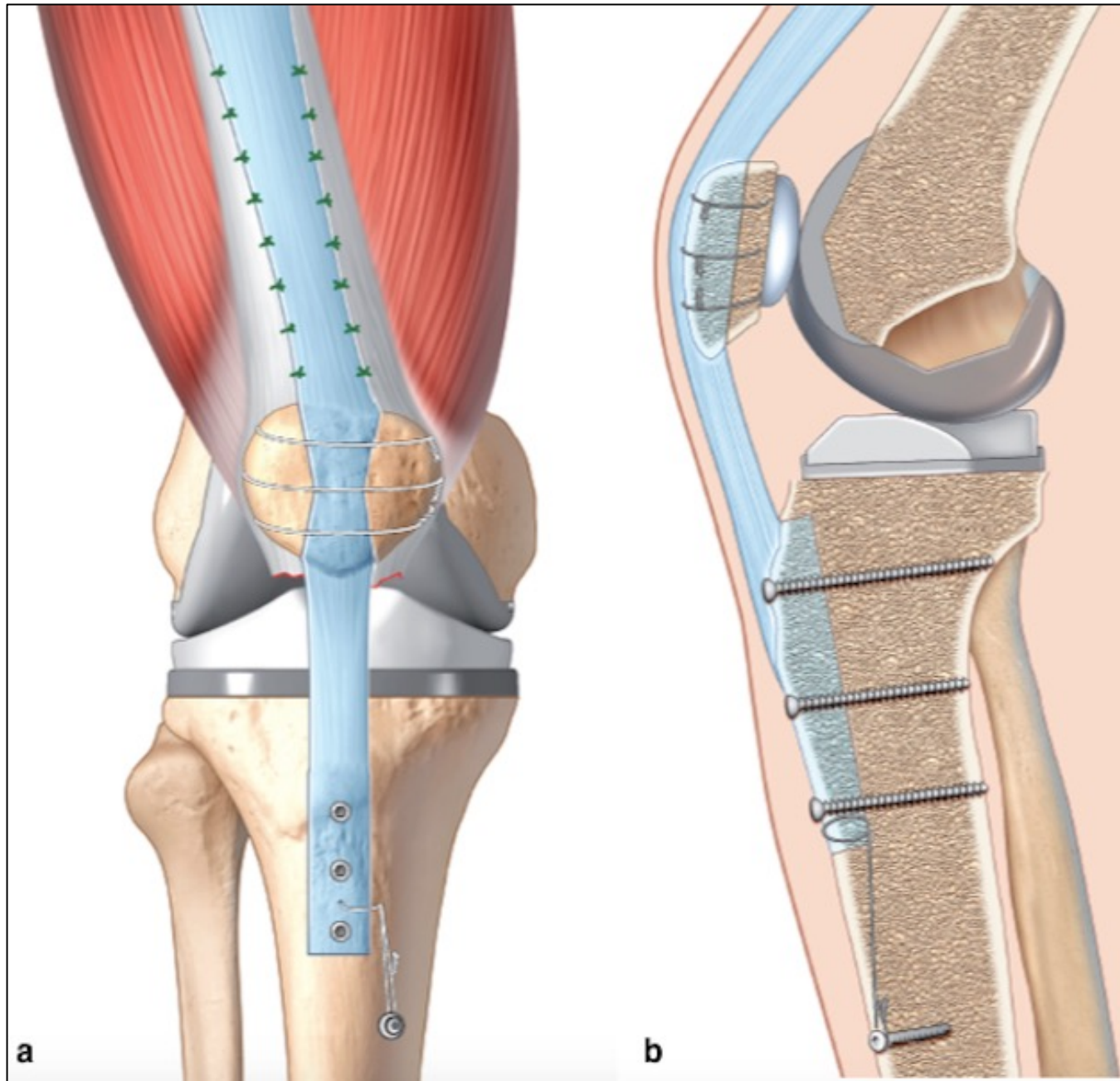
Do you need to perform other procedure?

- 1- Arthrolysis of suprapatellar pouch
- 2- Expanded arthrolysis
- 3- Patellar retinaculum section
- 4- Lengthening plasty of quadriceps tendon
- 5- Another option

Preoperative sizing +++ on x-rays according to the contralateral knee

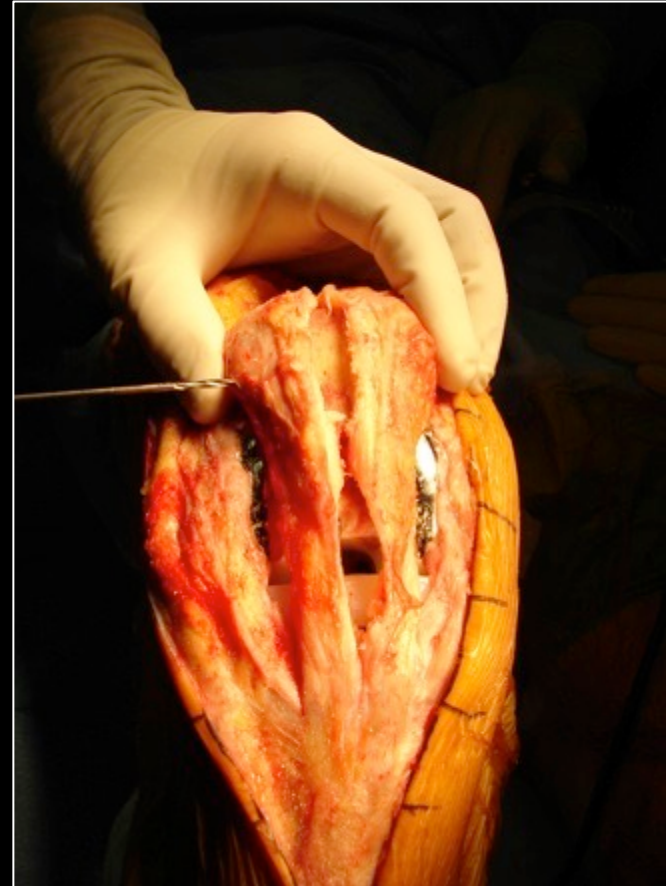
Other option : allograft





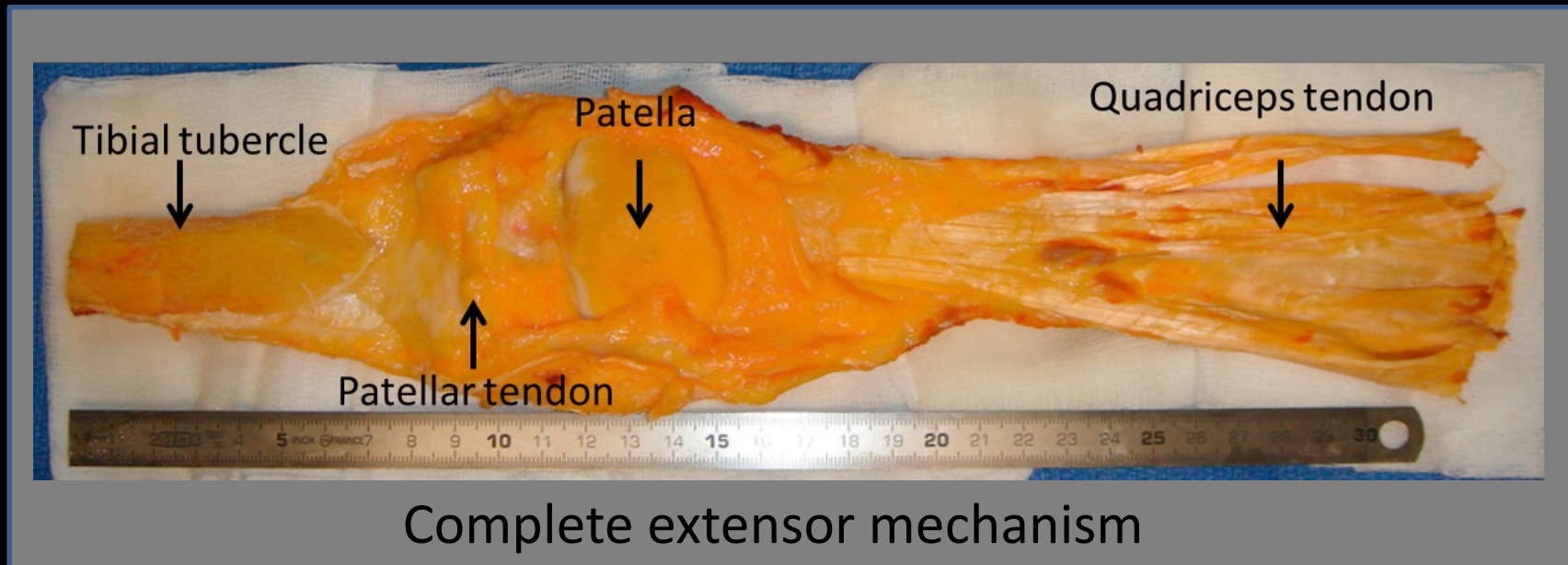
« challenging » situation ...

After a TKA ... with a resurfaced patella



Surgical procedure

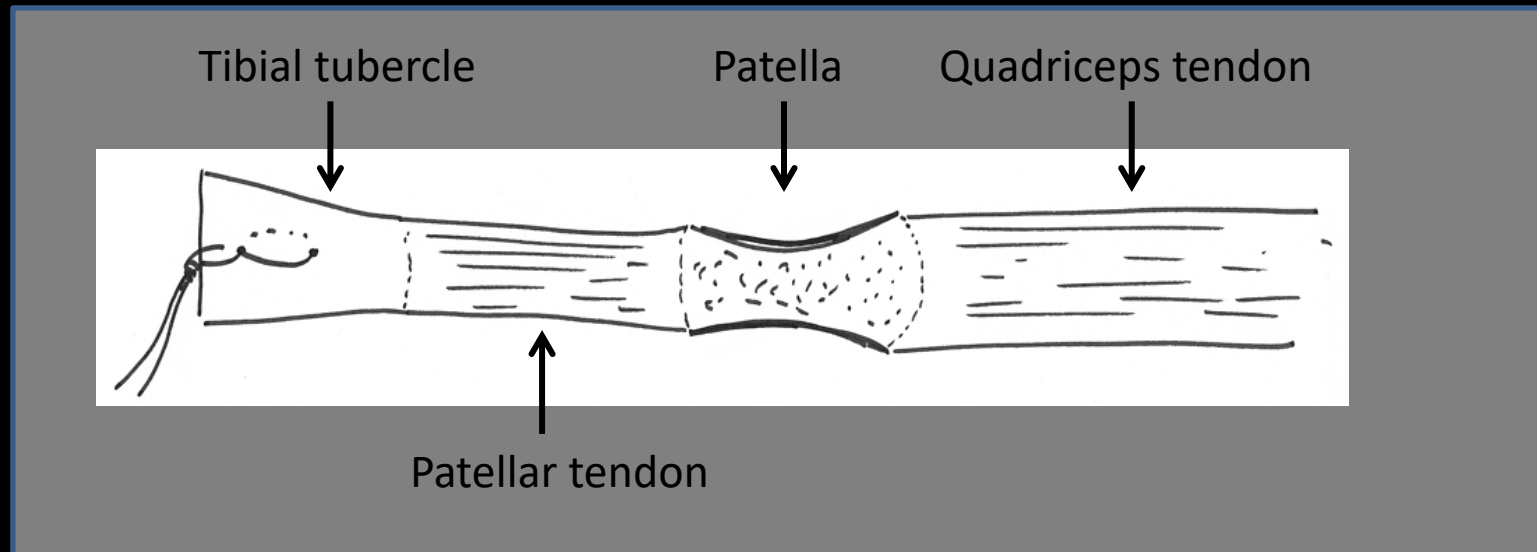
1. Graft : extensor mechanism allograft



← Preoperative sizing +++ on x-rays according to the contralateral knee →

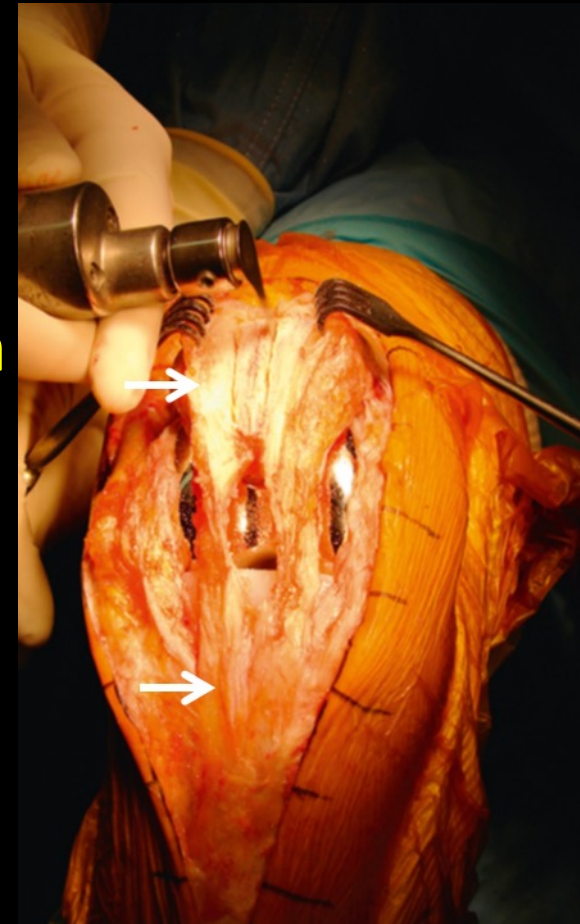
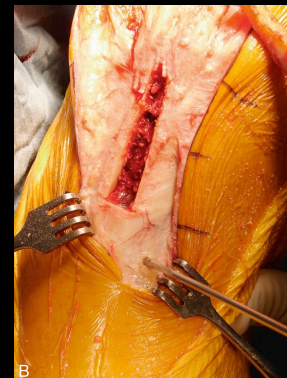
Surgical procedure

1. Graft : extensor mechanism allograft
2. Preparation of the allograft



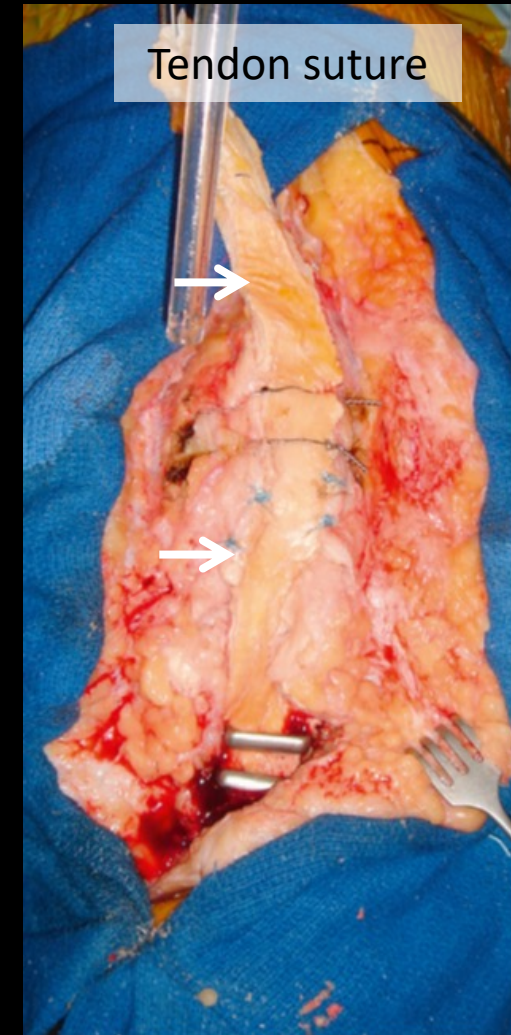
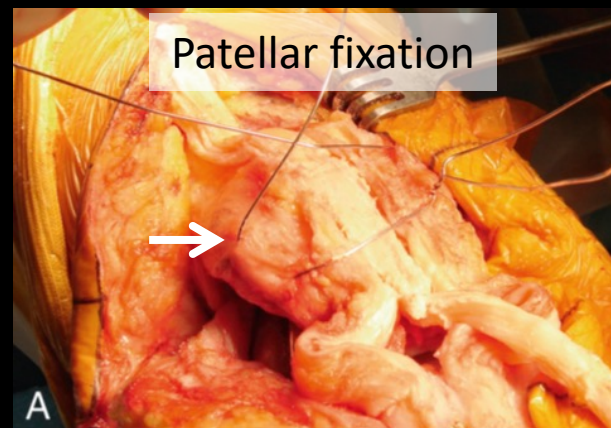
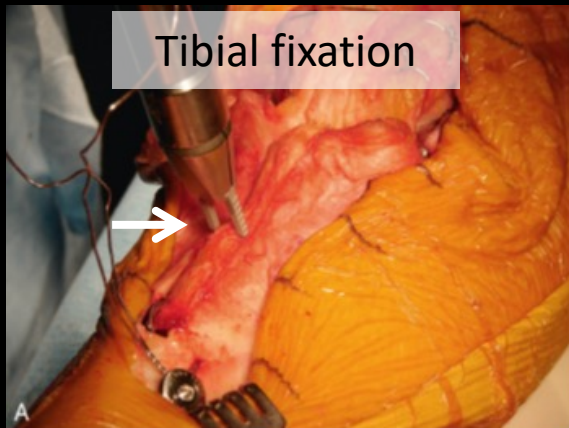
Surgical procedure

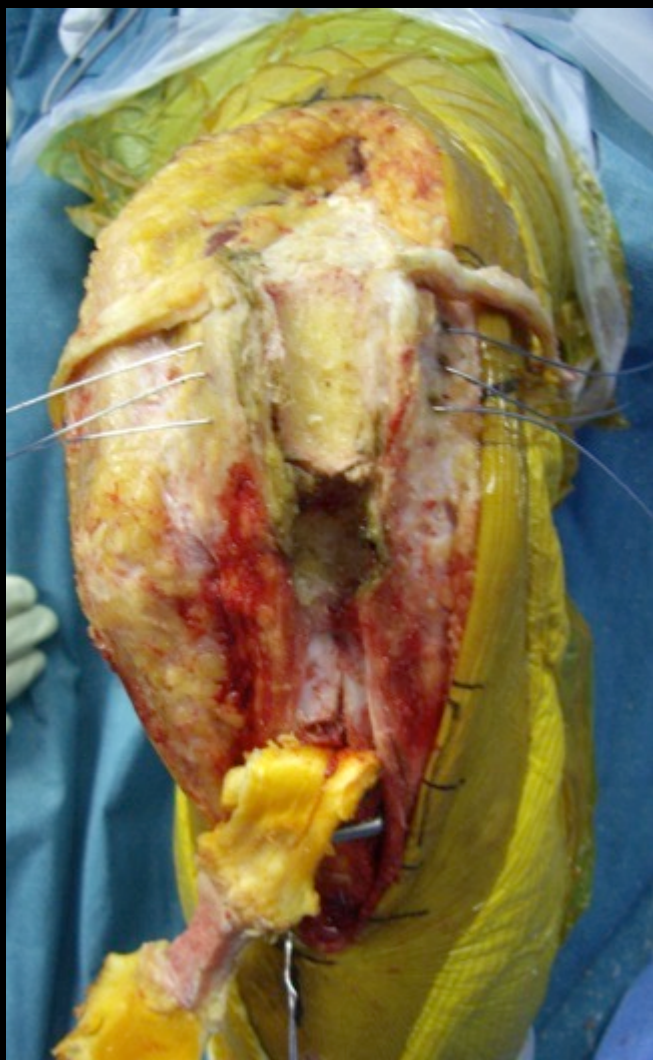
1. Graft : extensor mechanism allograft
2. Preparation of the allograft
- 3. Preparation of the extensor mechanism**
2 channels at the anterior part of the patella and tibial tubercle



Surgical procedure

1. Graft : extensor mechanism allograft
2. Preparation of the allograft
3. Preparation of the extensor mechanism
4. **Graft fixation**











2. d. What is the rehabilitation protocol usually?

- 1- Full weight bearing immediately with brace
- 2- Weight bearing forbidden the first 6-8 weeks
- 3- Progressive passive mobilization immediately until 120° at 6 months
- 4- No mobilization the first 6-8 weeks
- 5- Rigid brace in extension all day, during 6-8 weeks
- 6- Brace with flexion of 30° at rest the first 6-8 weeks

