



How I Do MPFL Reconstruction

J. Barth, A. Boutsiadis, J. Rossi, N. Tardy
and JC Panisset. Grenoble, France



6th Advanced Course on Knee surgery

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CENTRE
OSTÉO-ARTICULAIRE
DES CÈDRES

La PATELLA Lyon 2012 "ALRM"



LA PATHOLOGIE FEMORO-PATELLAIRE

6^{èmes}
JOURNEES
LYONNAISES



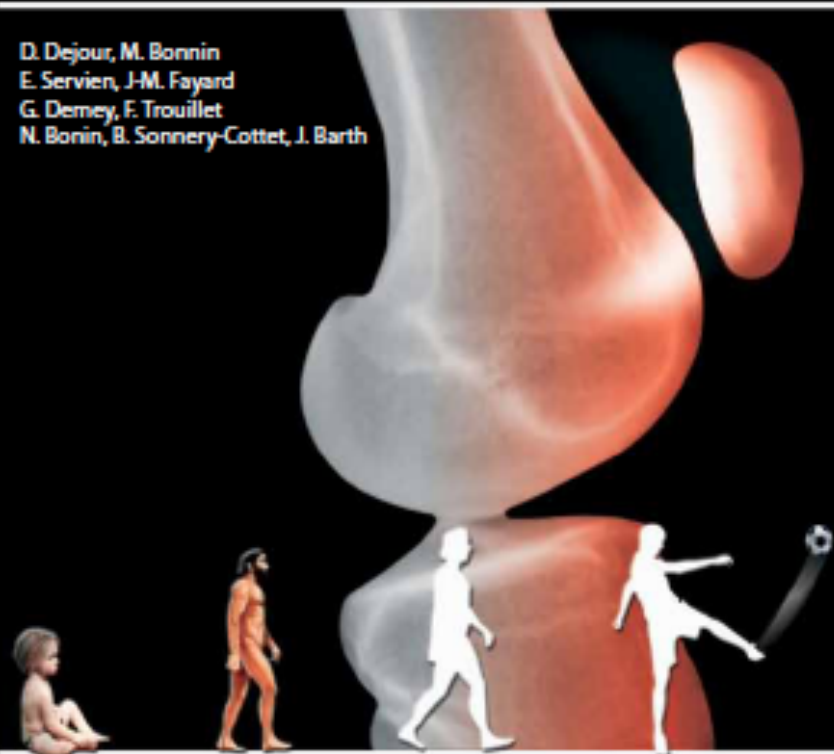
HOPITAL LYON-STUD

15^{èmes} Journées Lyonnaises de Chirurgie du Genou



La Patella

D. Dejour, M. Bonnin
E. Servien, J-M. Fayard
G. Demey, F. Trouillet
N. Bonin, B. Sonnery-Cottet, J. Barth



25 ans après...25 years later..

2012

ALRM Since 1969

Past presidents : Albert Trillat, Henri Dejour,
Pierre Chambat, Philippe Noyret.

1987



1987 "menu à la carte" for patella dislocation

Instability factors	Knee side	Proposed procedure
Trochlear dysplasia	Type I, II, III	?
Patellar height Caton & Deschamps	Index AT / AP	Distalization Index = 1
TT-TG CT-scan	> 20 mm	Medialization 10mm<TT-TG<15mm
Patellar Tilt (CT)	> 20°	VMO Plasty



2012 Instability factors = 3

Trochlear dysplasia : YES

Patella Alta : YES

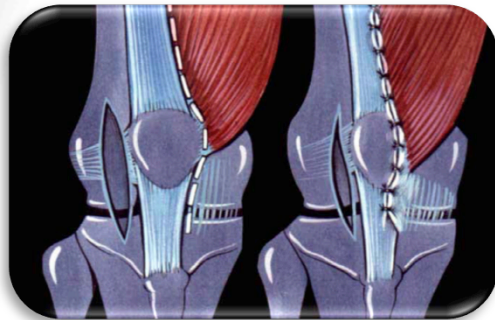
TT - TG: YES

Patellar Tilt : NO

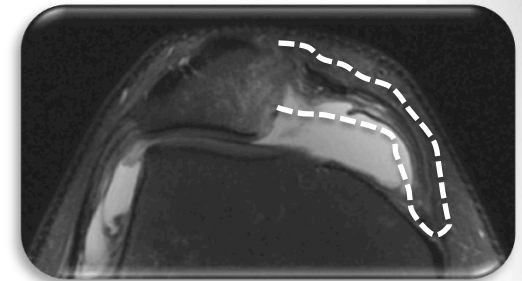
Resulting factor of all the others



Treatment Algorithm Chronic PF Instability

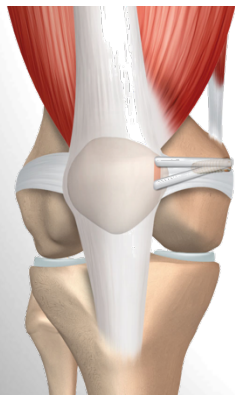


~~VMO Plasty + LR
for the Patellar Tilt~~

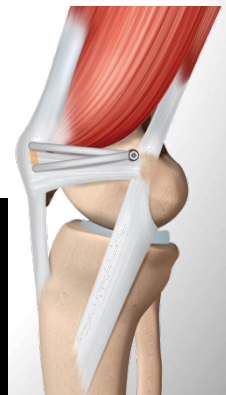


MPFL isolated or combined

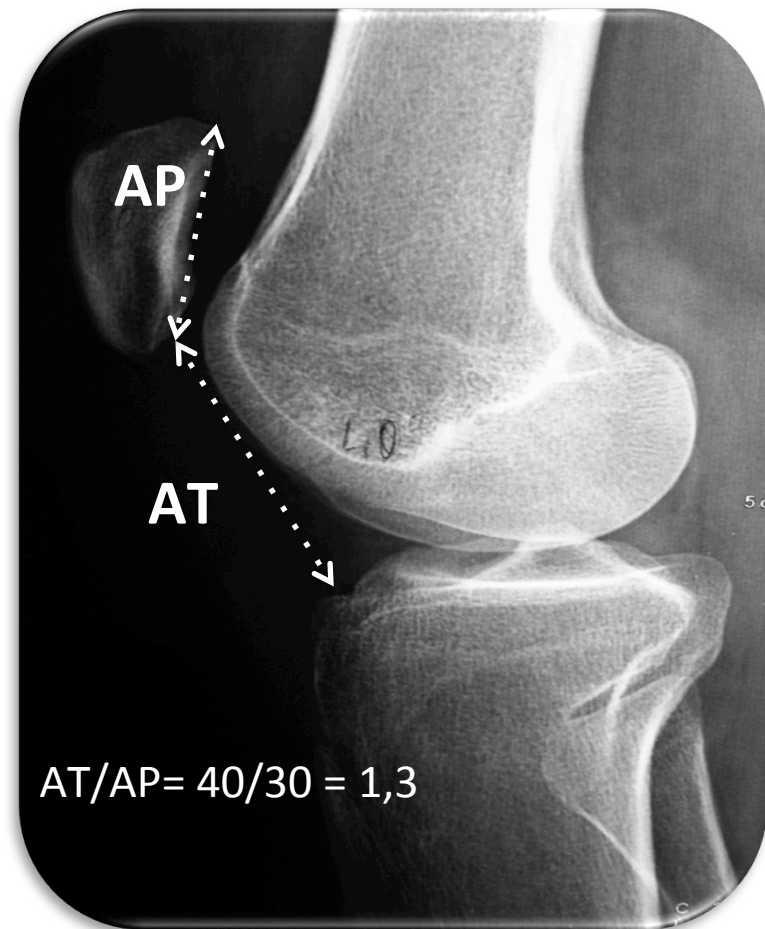
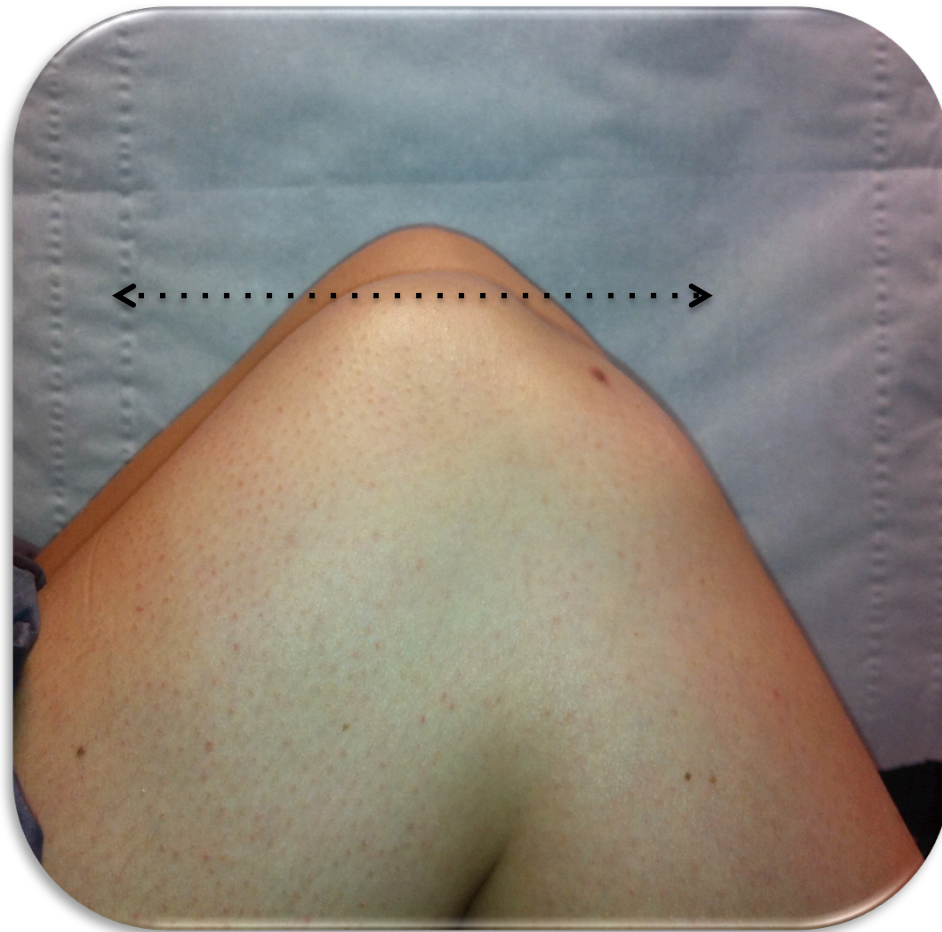
All cases



Lateral release if : Medial Tilt test negative
"Possible option"



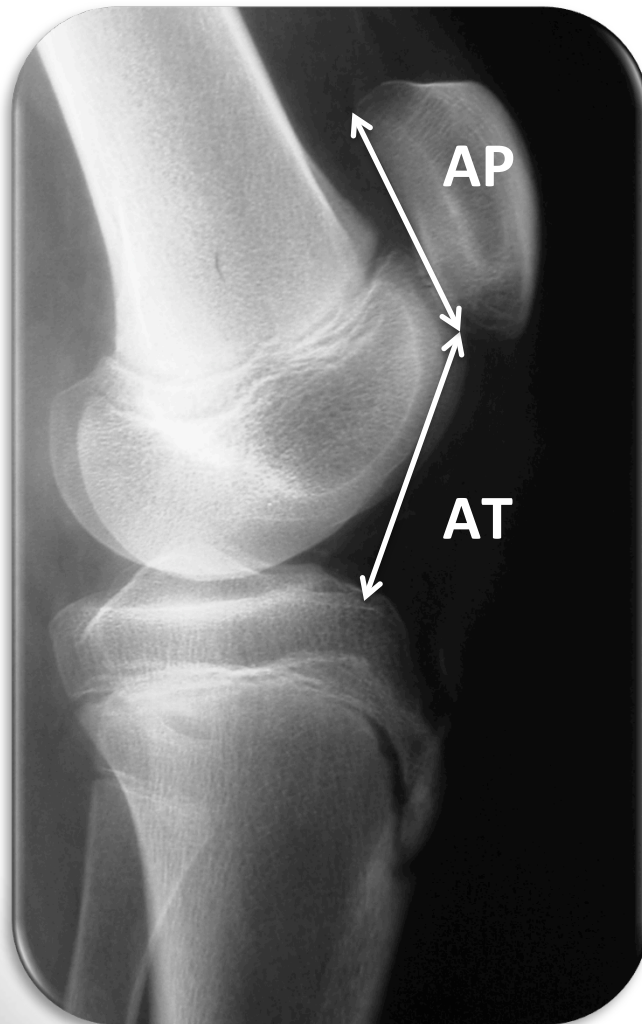
How to deal with Patella Alta



X-Rays



TT osteotomy



Patellar height

Caton & Deschamps = X rays

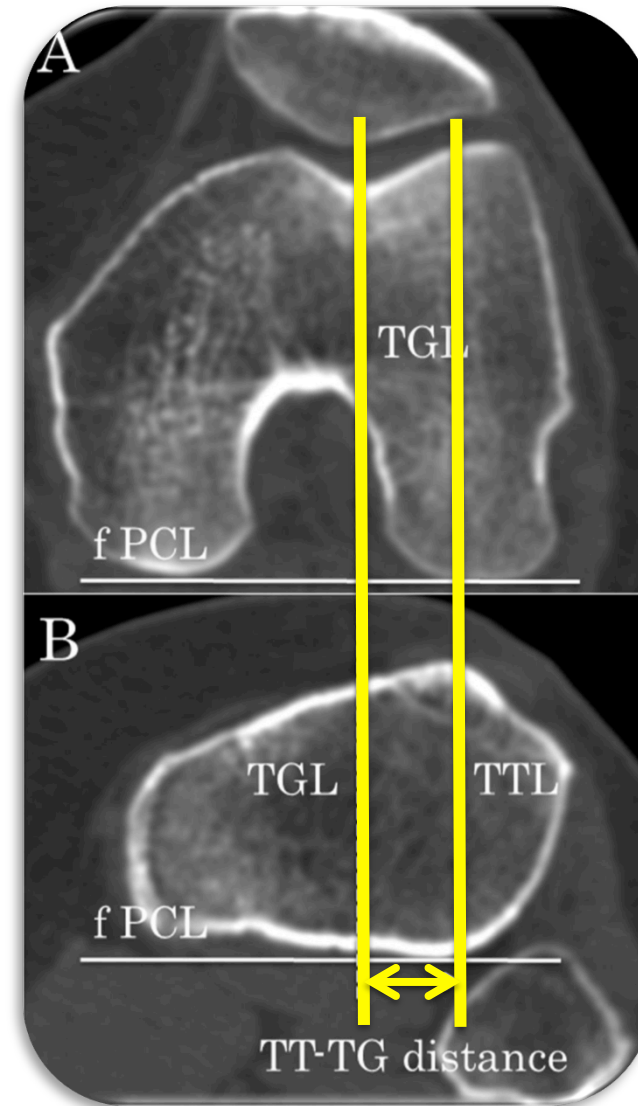
$$C\&D = AT/AP > 1.2$$

Distalization

→ index C&D = 1

How to deal with TT-TG distance

CT-SCAN



TT osteotomy

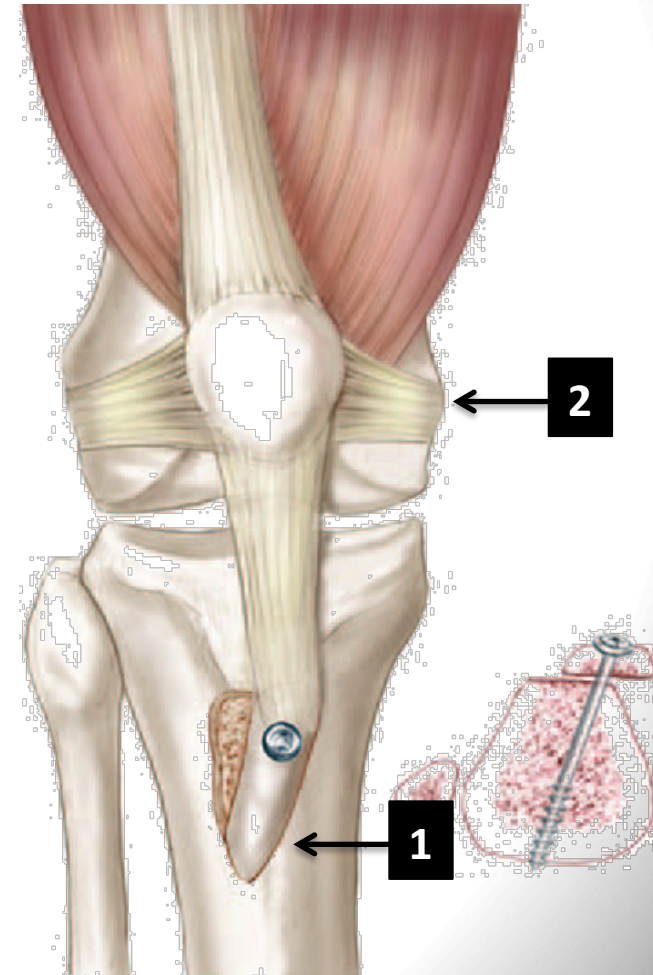
Medialization

→ $10 \text{ mm} < \text{TT-TG} < 15 \text{ mm}$

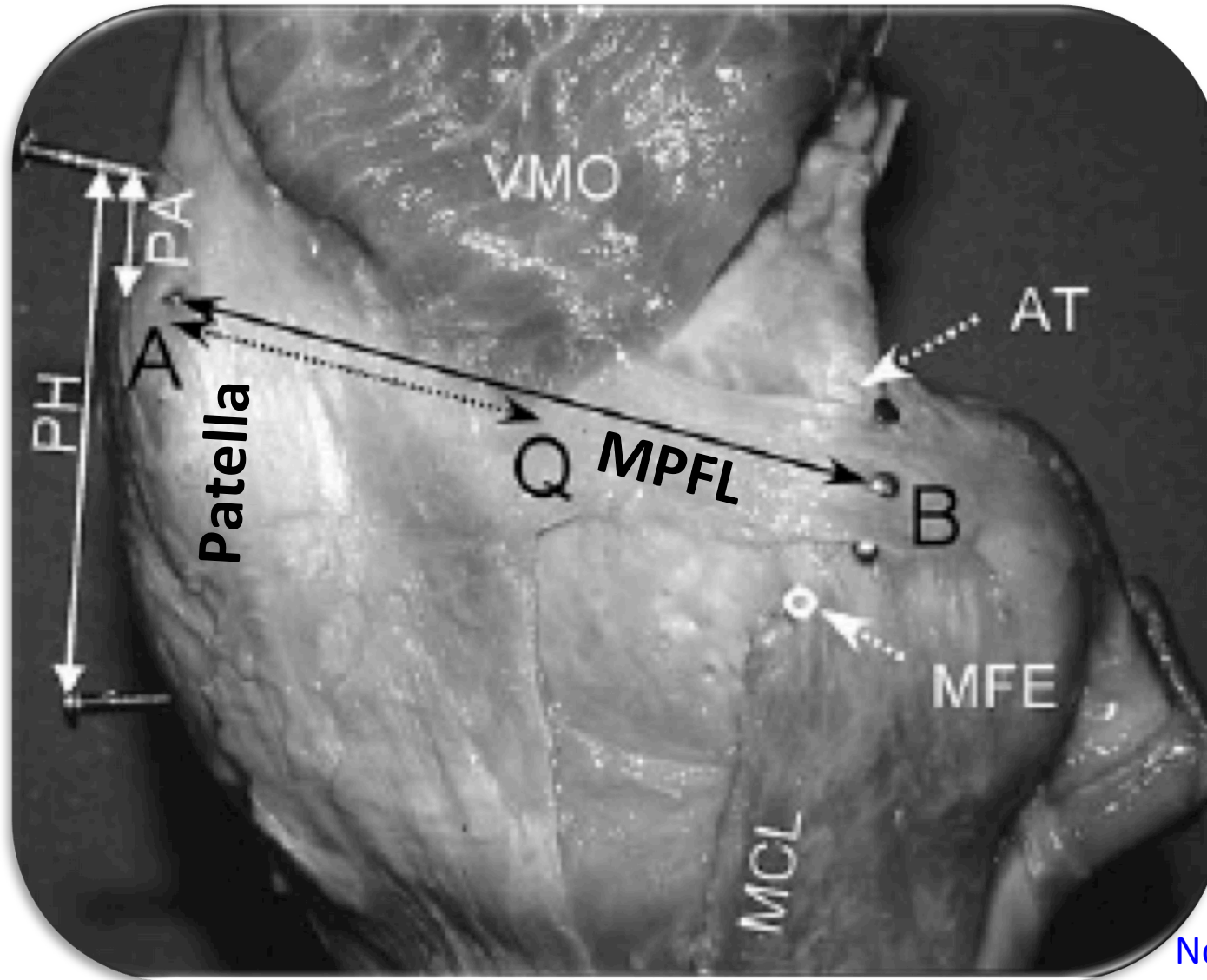
Procedure rules :

Prior to MPFL reconstruction

No over correction



MPFL Anatomy R-Knee



**Magnus
Adductor
Tendon
Tubercle
(AT)**

**Medial
Femoral
Epicondyle
(MFE)**

MPFL Structural Properties

Tensile strength : 208 N

Amis et al. Knee, 2003

Maximum load during flexion :

20 N at 30°

0 N at 90°

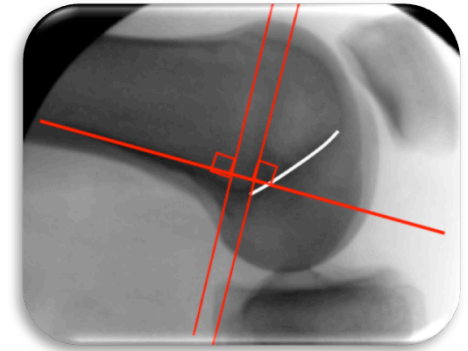
Elias et al. Am J Sports Med., 2006

Surgical Technique

Key points

**Femoral tunnel positionning under
fluoroscopy**

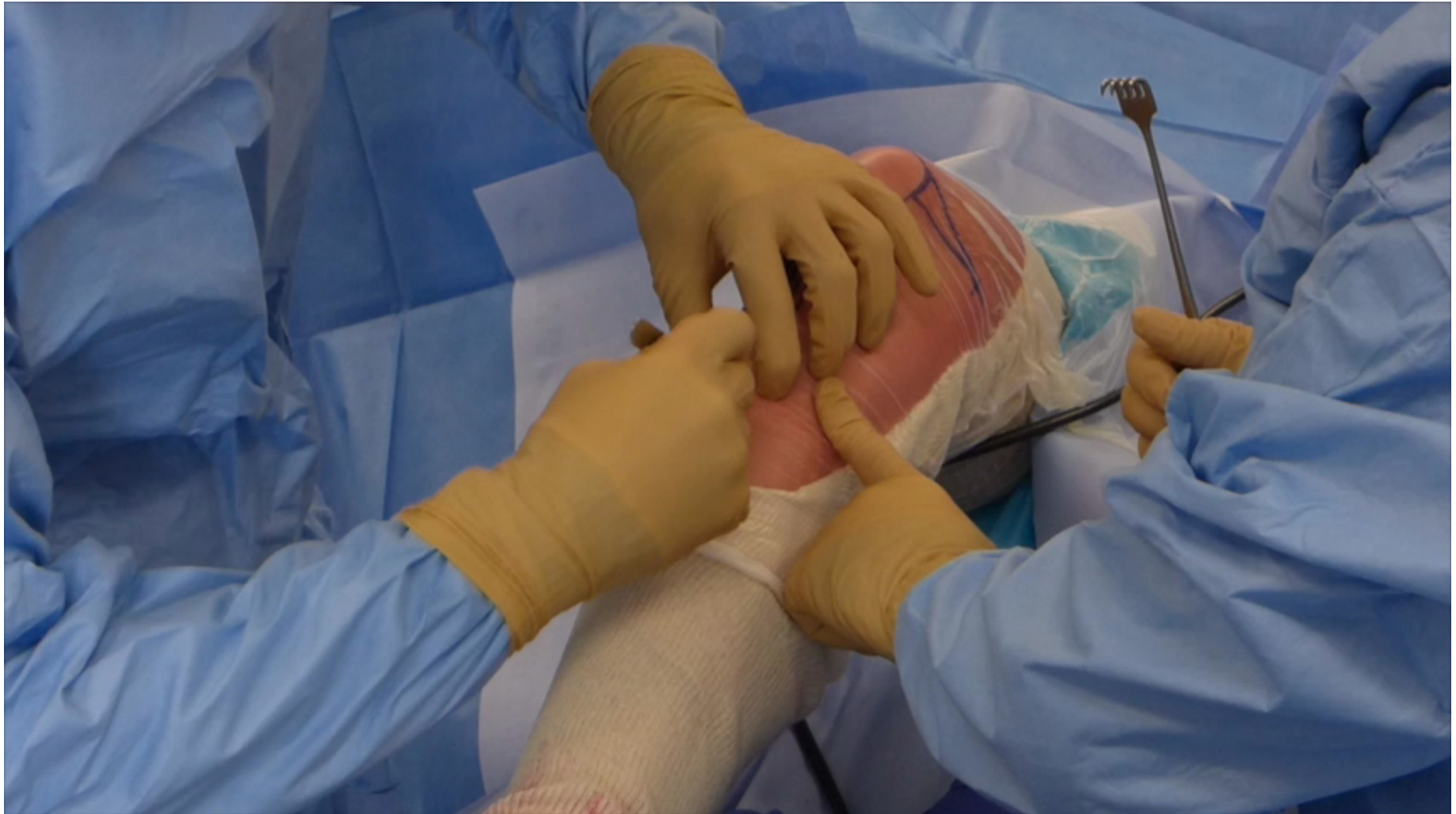
Schöttle et al. AJSM, 2007



Fixation at 30° of flexion

Low profile fixation preferred (Patella)

- Hardware
- Stiches

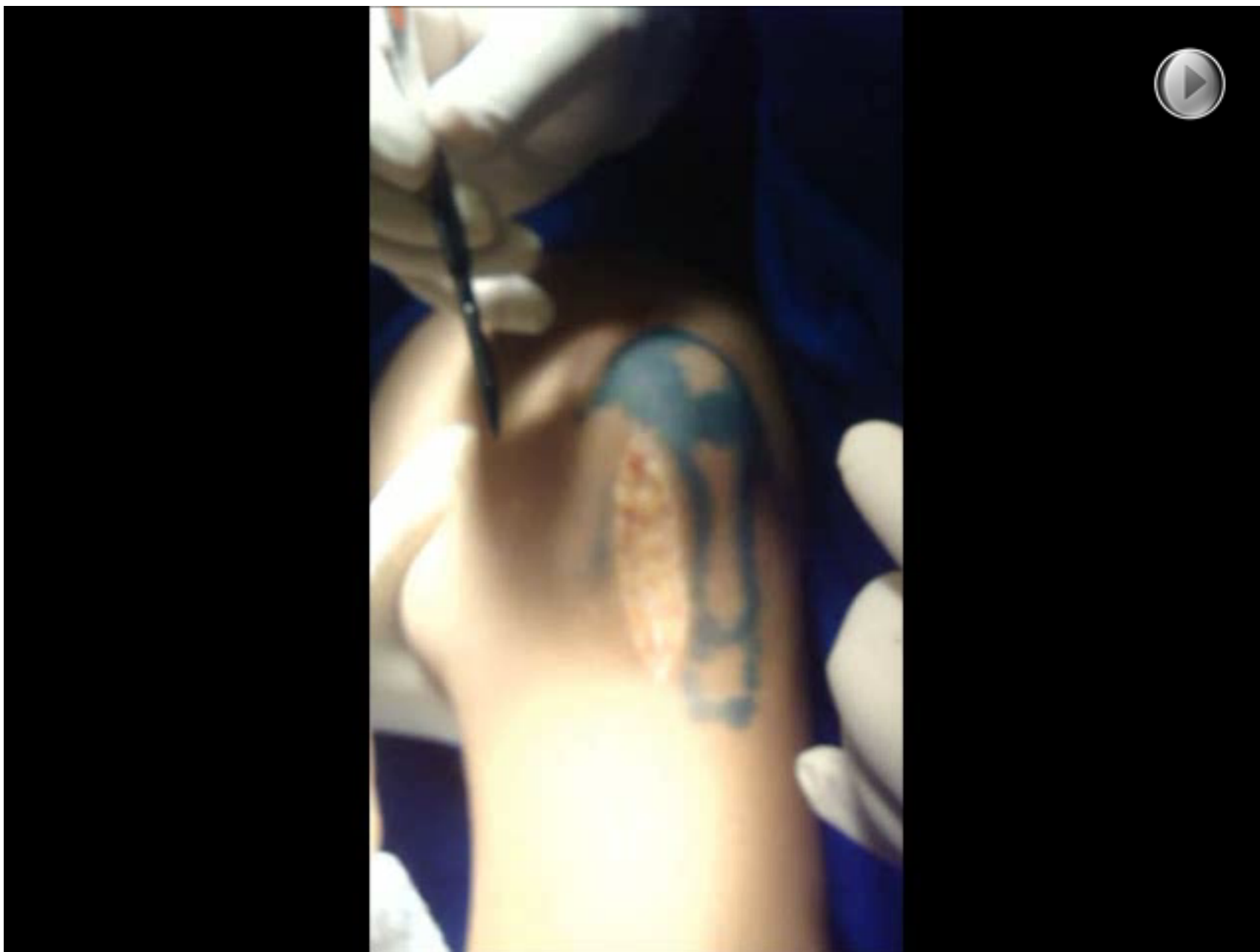


Alternative Technique With Patellar Tendon

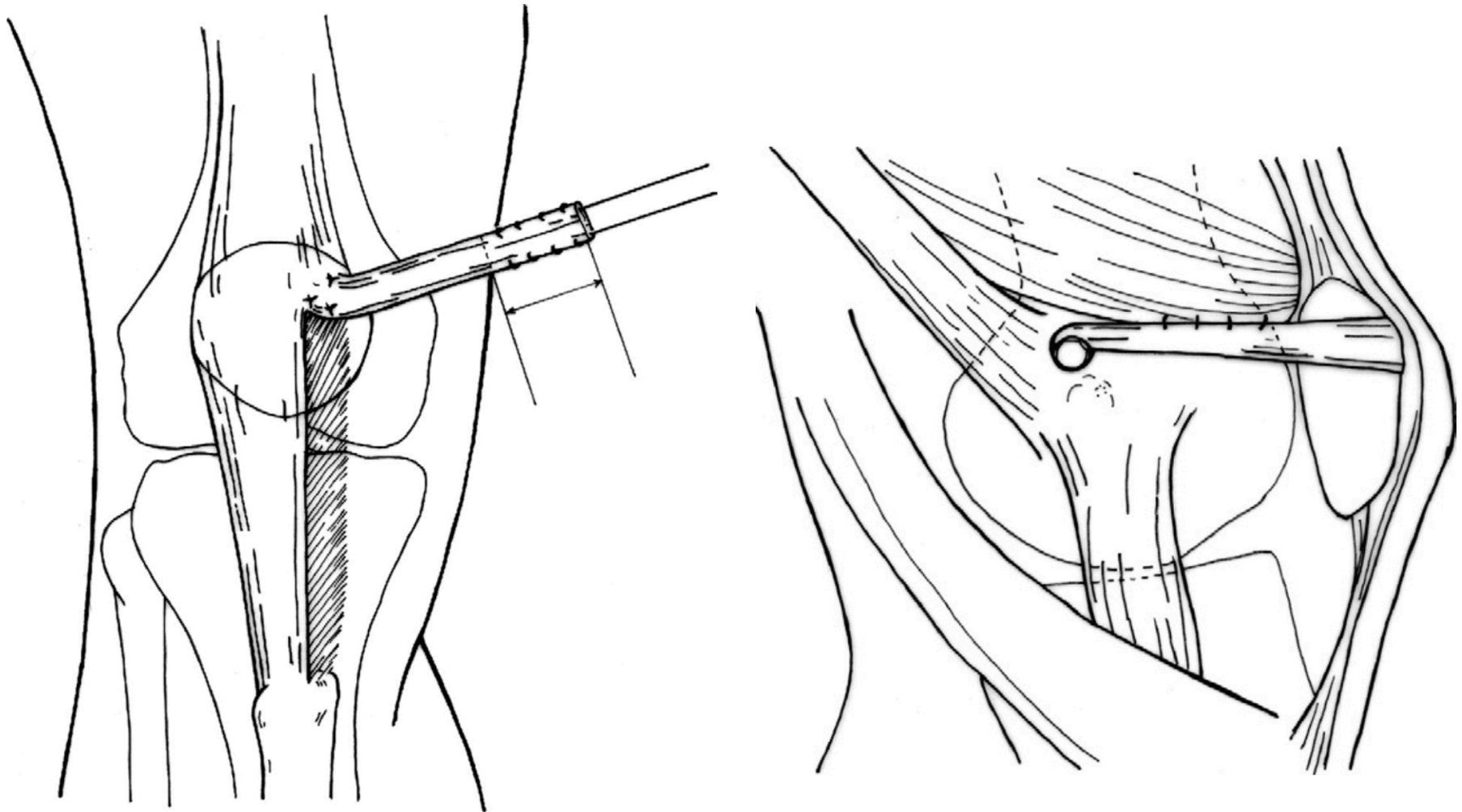
Technical Note

Medial Patellofemoral Ligament Reconstruction: A Novel Technique Using the Patellar Ligament

Gilberto Luis Camanho, M.D., Alexandre C. Bitar, M.D., Arnaldo J. Hernandez, M.D., and
Rogério Olivi



Pr. Camanho's Technique With Patellar Tendon



A photograph of a person lying in a hospital bed, with their legs raised and bent at the knees. The person's face is visible in the background, looking towards the camera. The setting appears to be a medical facility, with a blue curtain and a medical stand with an orange handle visible in the background. The text "THANK YOU !" is overlaid in large, white, bold, sans-serif capital letters across the lower half of the image.

THANK YOU !