

Con il Patrocinio di



APPROCCI INTERDISCIPLINARI IN REUMATOLOGIA
6^a Edizione
GERIATRIA E MALATTIE REUMATICHE



Torino, 12-13 ottobre 2018

STATO DELL'ARTE NELL'OSTEOARTROSI

Trattamento chirurgico

A. Bistolfi

Scopo del trattamento chirurgico:

- Eliminare il dolore
- Restituire funzione

Possibilità:

- Bloccare l'articolazione (artrodesi)
- Sostituire l'articolazione (protesi)

PAZIENTI:

- Sempre più giovani
- Sempre più «demanding»
- Sempre più numerosi

Perché impiantare una protesi

DOLORE:

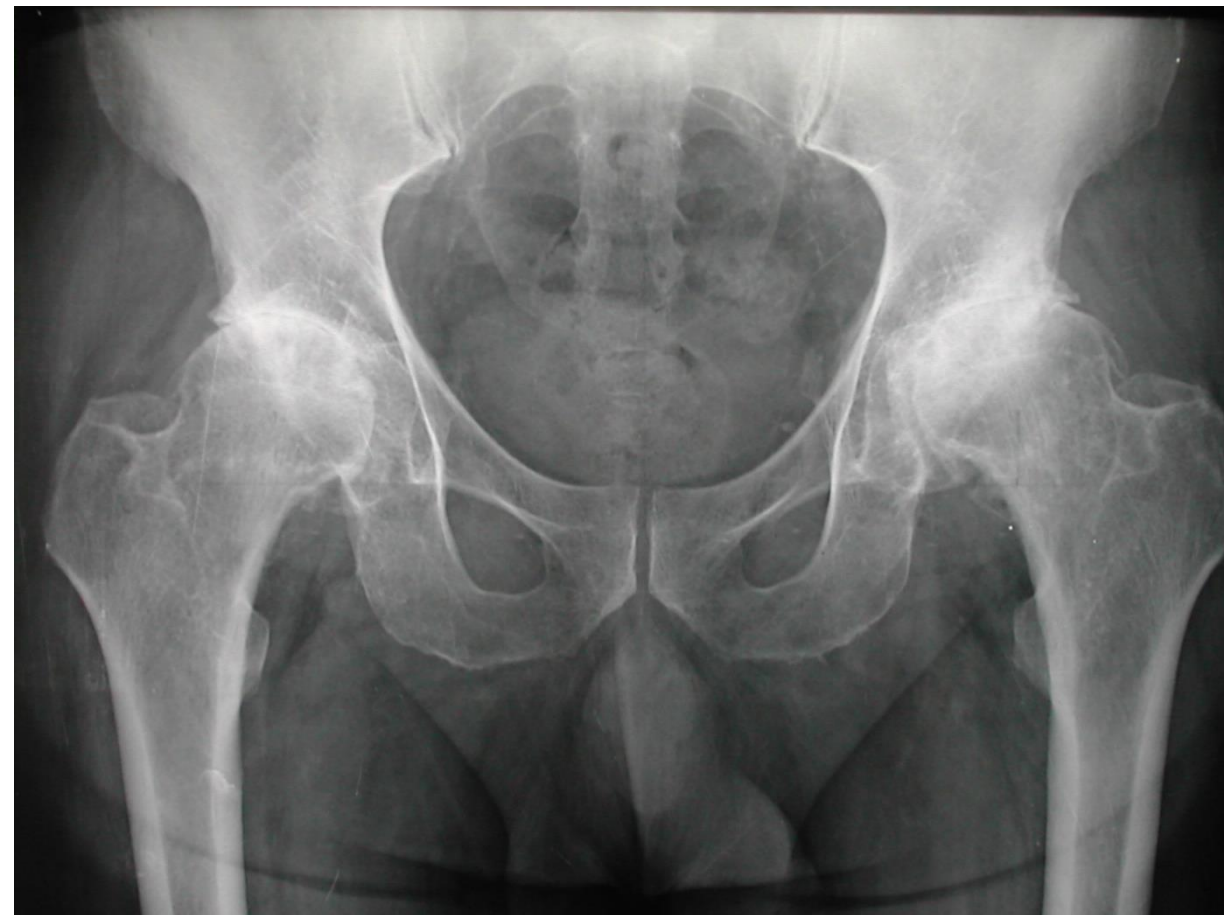
- SEVERO/FORTE
- CONTINUO
- ANCHE DI NOTTE
- CONSUMO DI ANTIDOLORIFICI



LIMITAZIONE FUNZIONALE

- AUTONOMIA LIMITATA
- IMPOSSIBILITA' A SVOLGERE NORMALI ATTIVITA'
- ZOPPIA
- DIFFERENZA CON I COETANEI
- ARTICOLAZIONE BLOCCATA





- Rischi e complicanze:
- Infezioni, emorragie, tromboembolie, fratture, rotture degli impianti, decesso....

RISULTATI MIGLIORI CON ARTRODESI

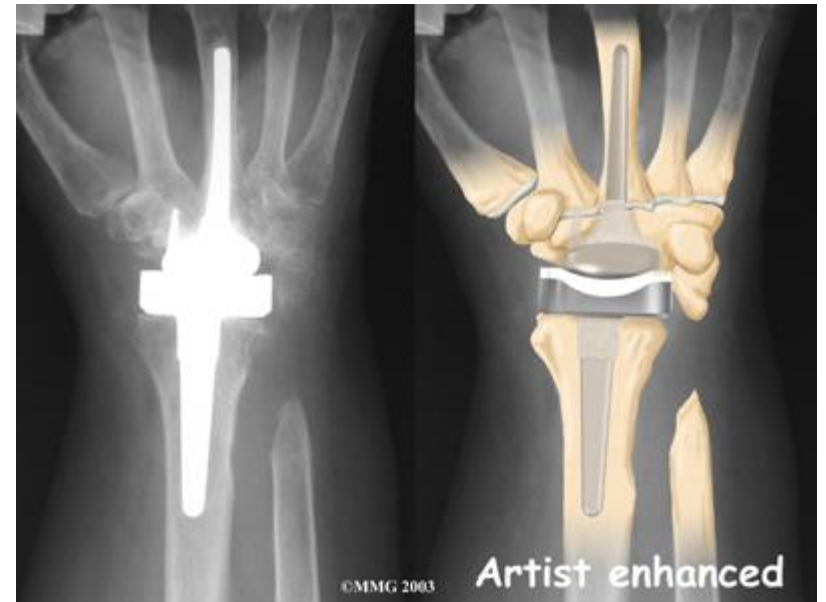
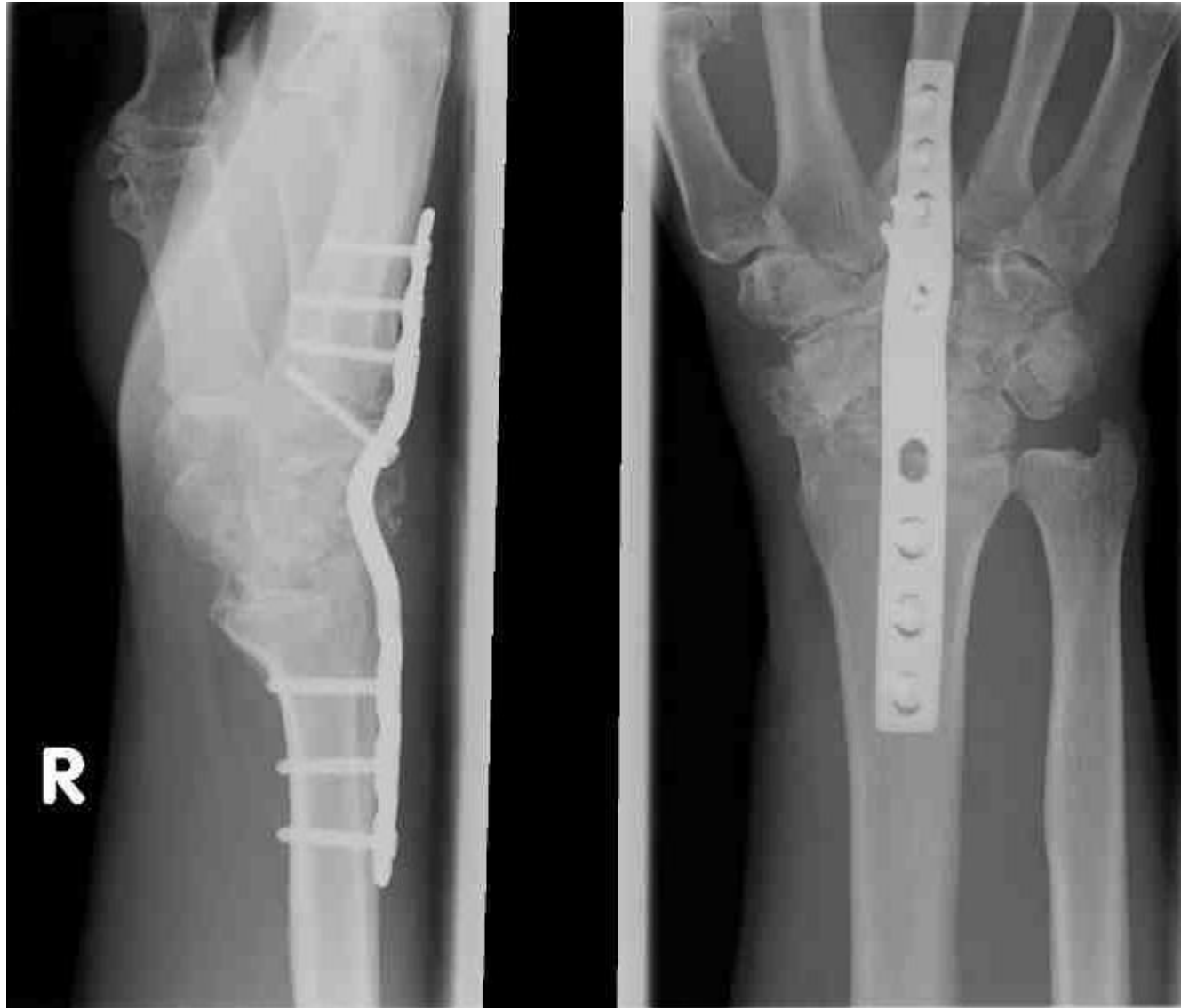
CAVIGLIA



RACHIDE



POLSO



ANCA E GINOCCHIO

CHIRURGIA CONSERVATIVA

CHIRURGIA SOSTITUTIVA

CONFLITTO FEMORO-ACETABOLARE

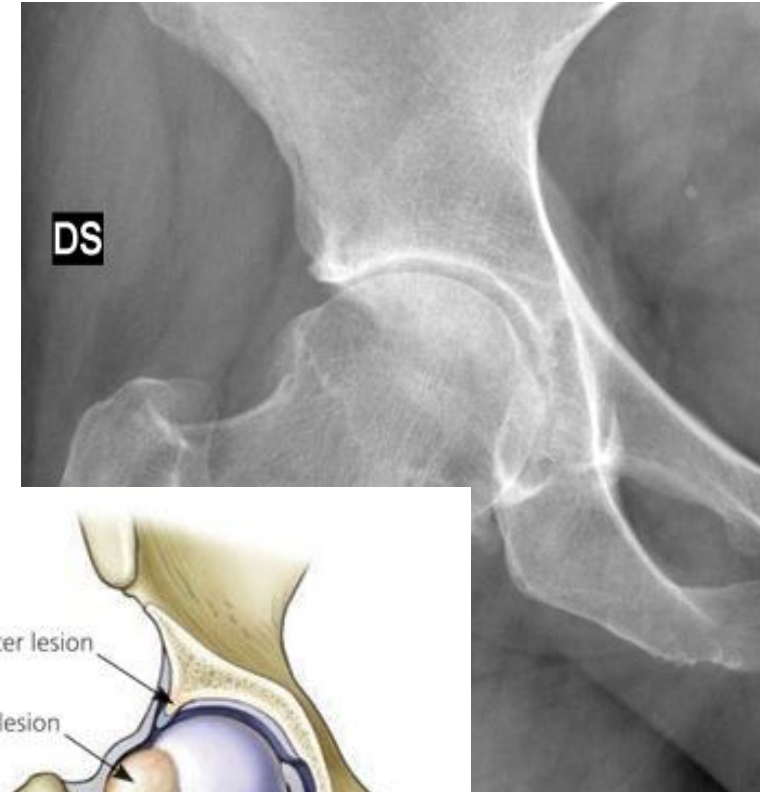
TIPO CAM



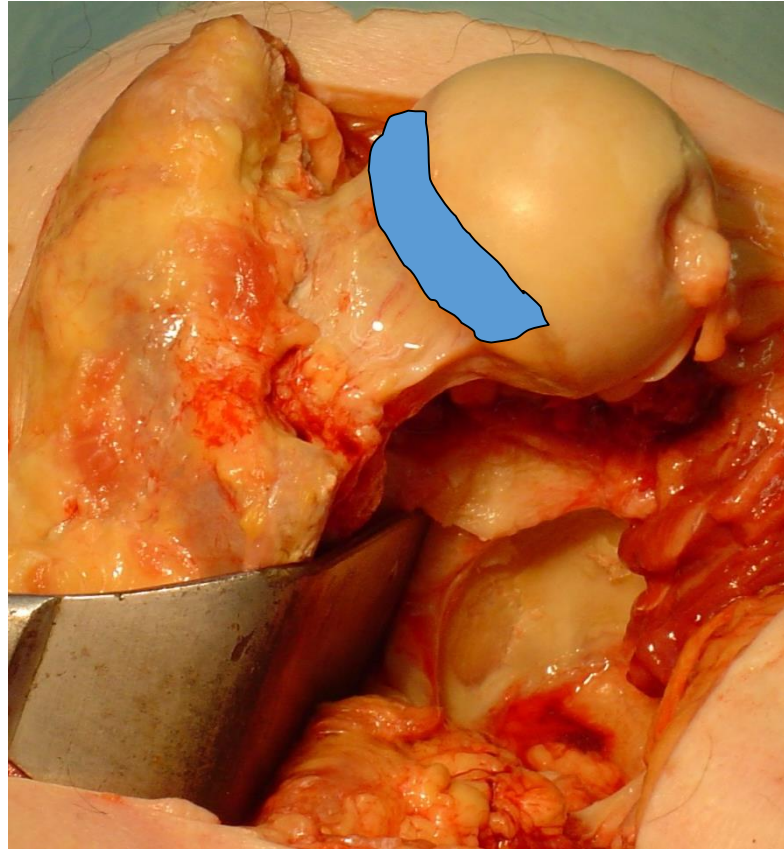
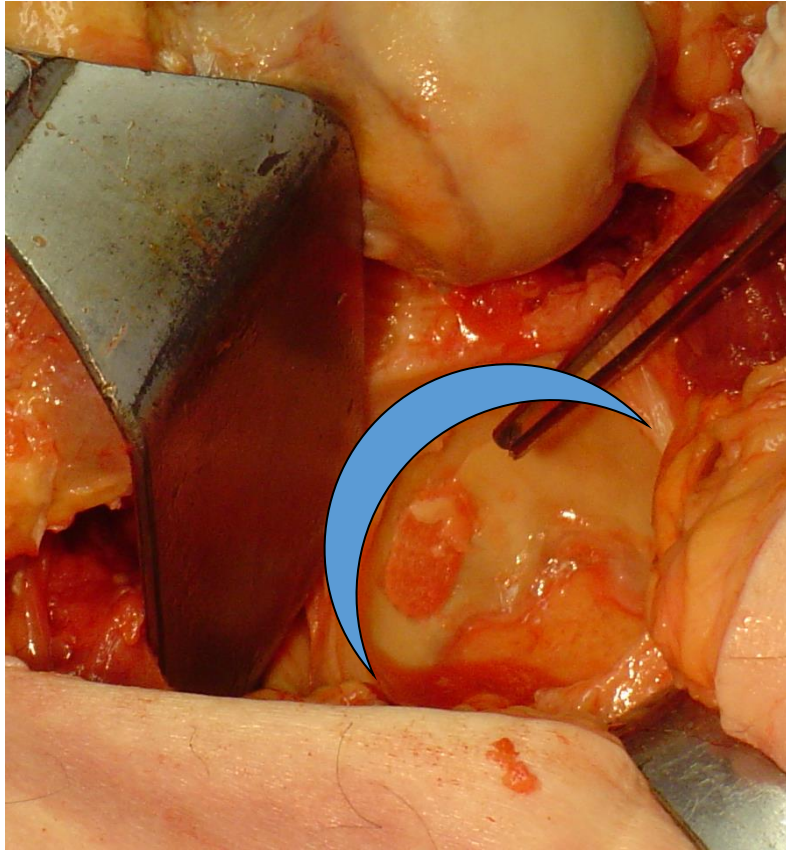
TIPO PINCER



TIPO MISTO



CONFLITTO FEMORO-ACETABOLARE



LESIONI OSTEOCONDRALE



McCarthy ET AL. Acetabular and labral pathology. In: McCarthy JC, ed. Early hip disorders. Chapter 12. New York: Springer-Verlag, 2003

McCarthy ET AL. The role of labral lesions to development of early degenerative hip disease. Clin Orthop Relat Res 2001

Cartlidge IJ, Scott JH. The inturned acetabular labrum in osteoarthritis of the hip. J R Coll Surg Edinb 1982

OSTEOTOMIA TIBIALE VALGIZZANTE

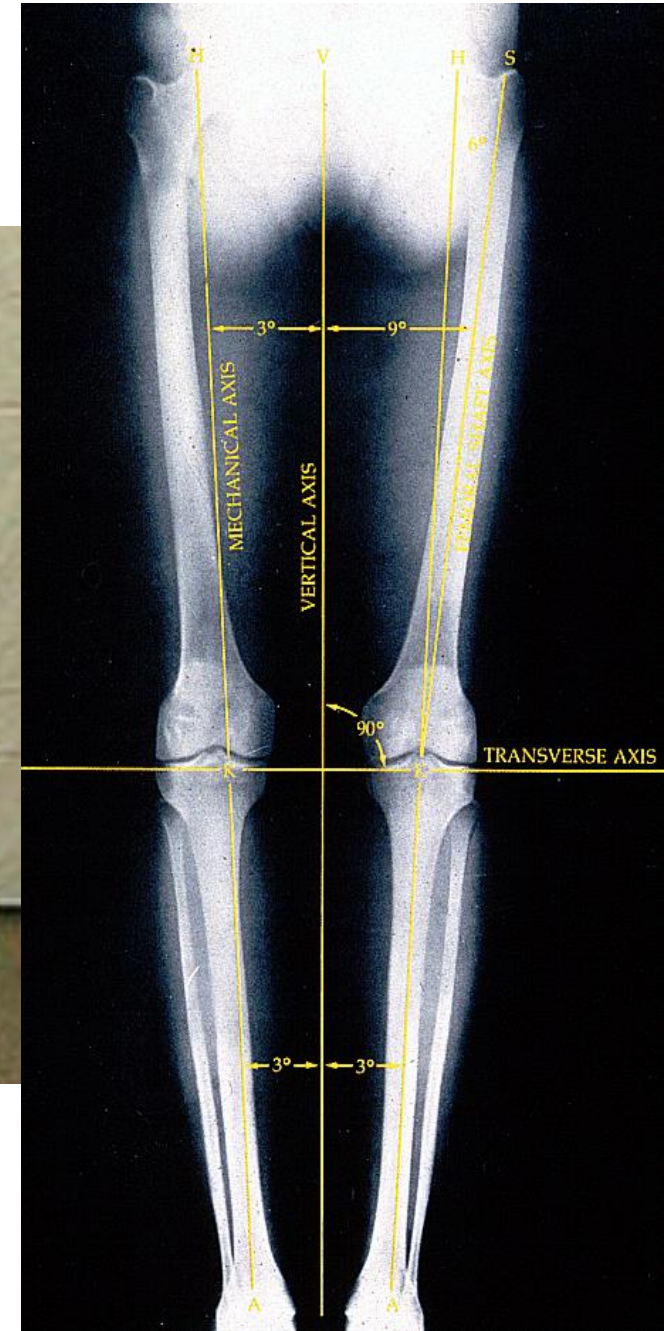
INDICAZIONI

Varismo tibiale congenito

Precoce degenerazione compartimento
mediale dopo meniscectomia

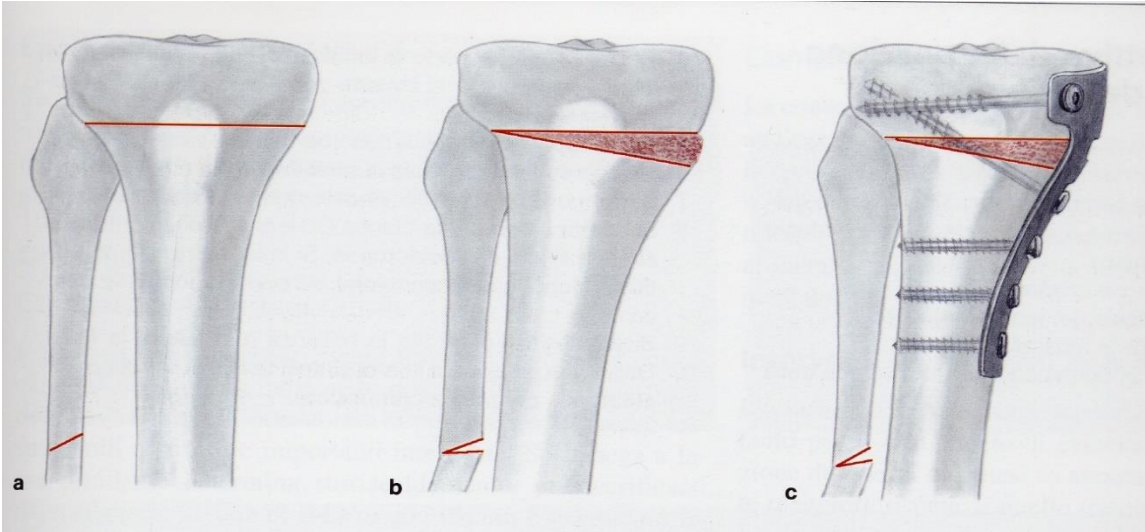
Precoci alterazioni cartilaginee dopo
ricostruzione LCA

Iniziale gonartrosi del compartimento mediale
paziente giovane

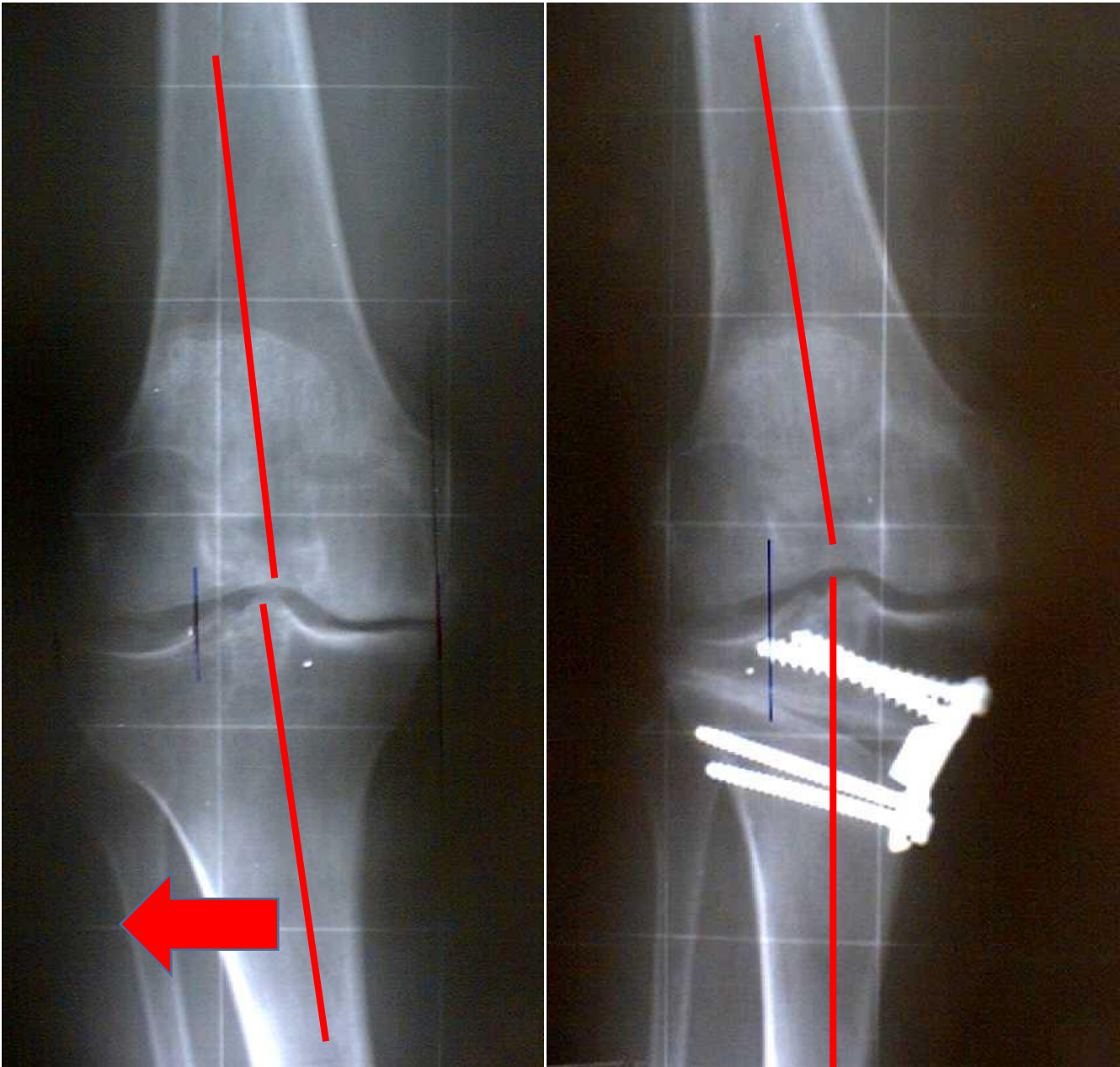
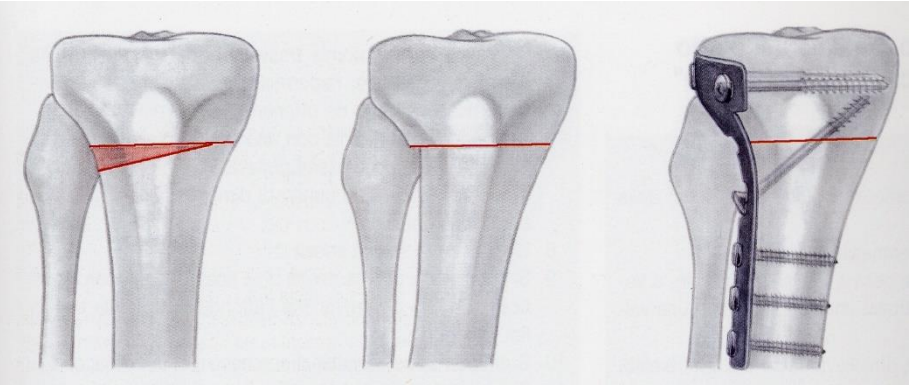


L'obiettivo dell'osteotomia tibiale è di spostare
l'asse meccanico sul compartimento laterale

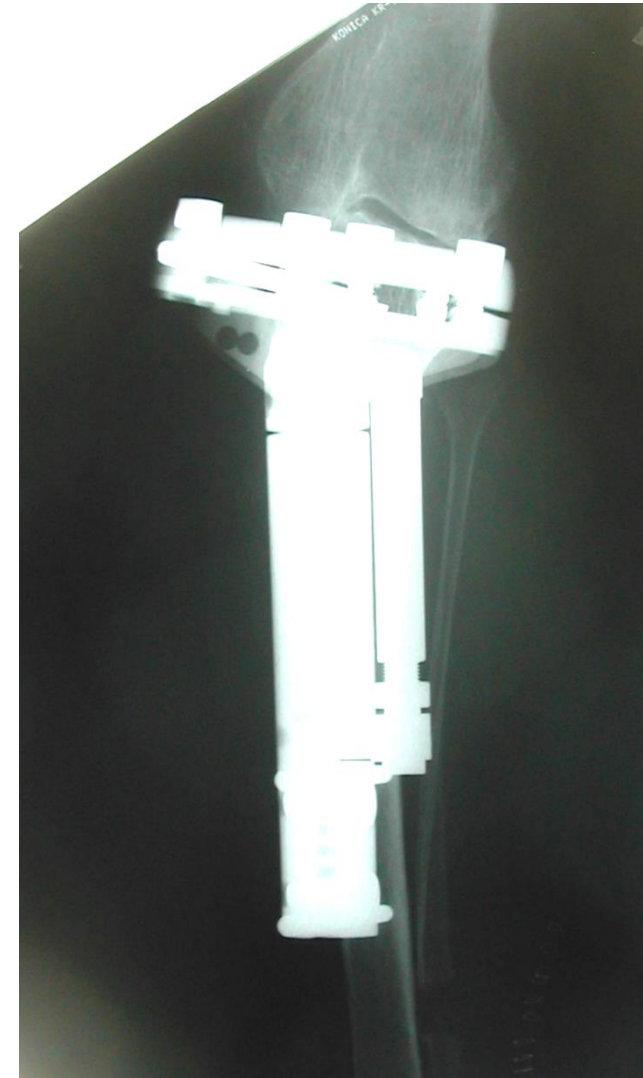
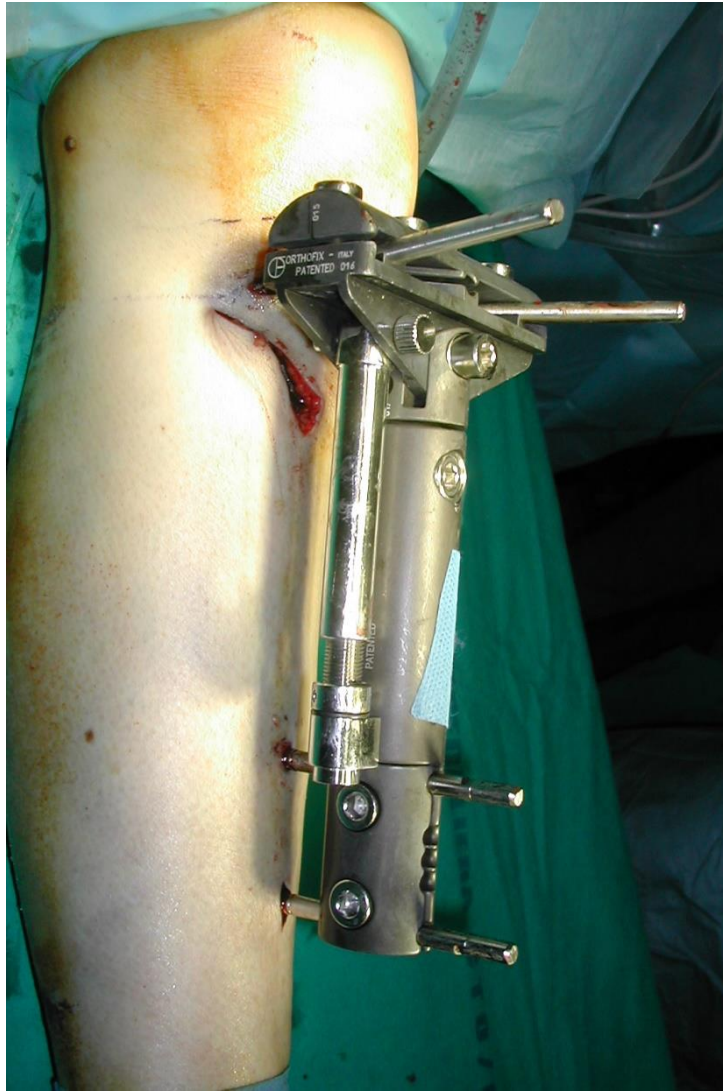
TECNICA DI ADDIZIONE

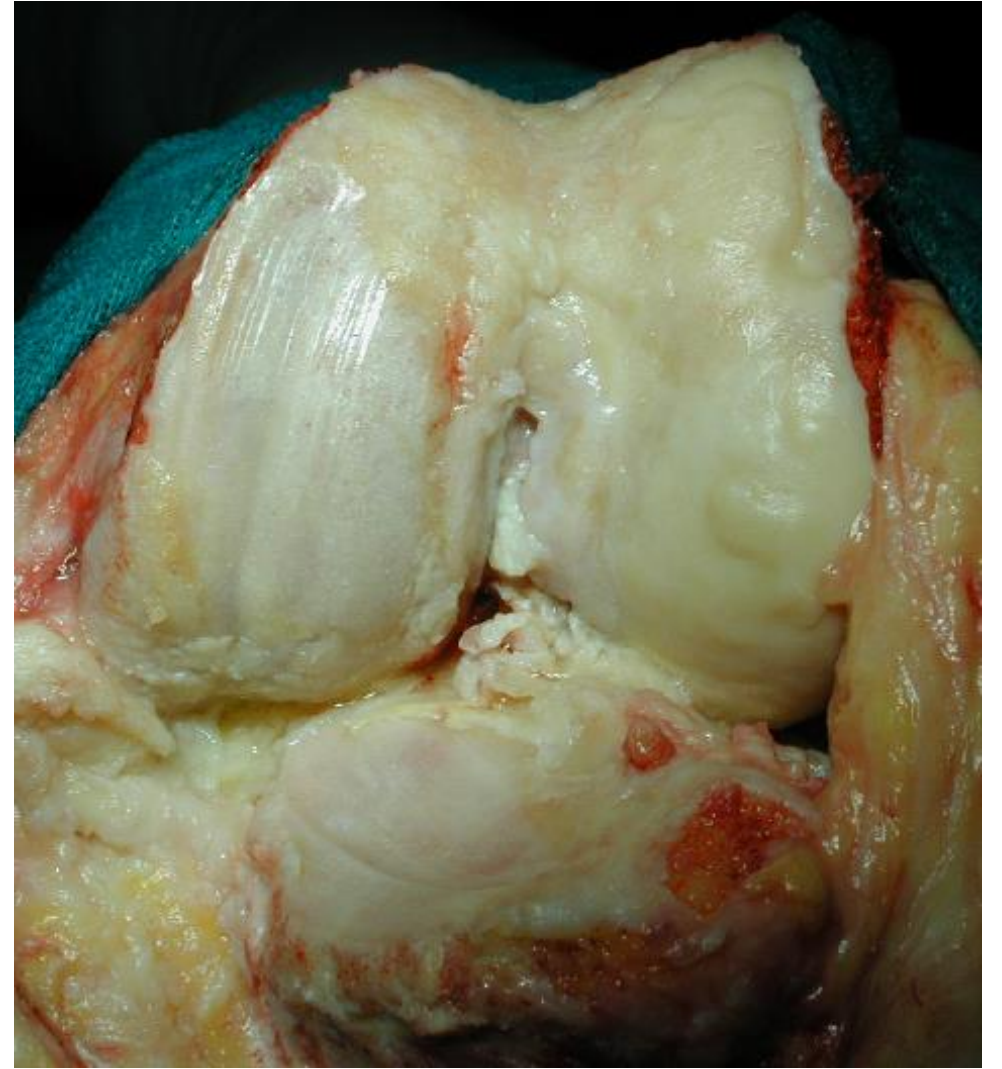
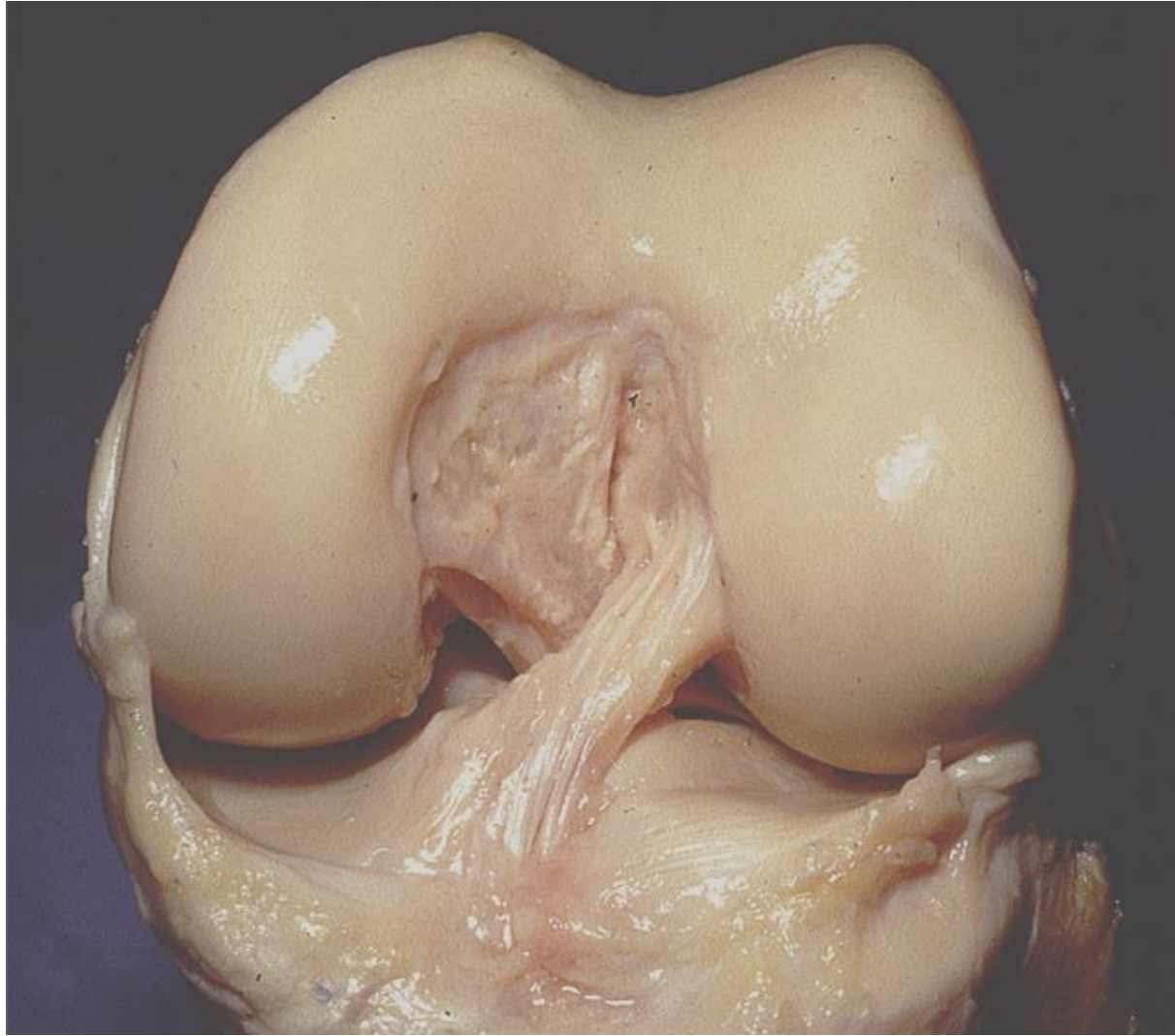


TECNICA DI SOTTRAZIONE

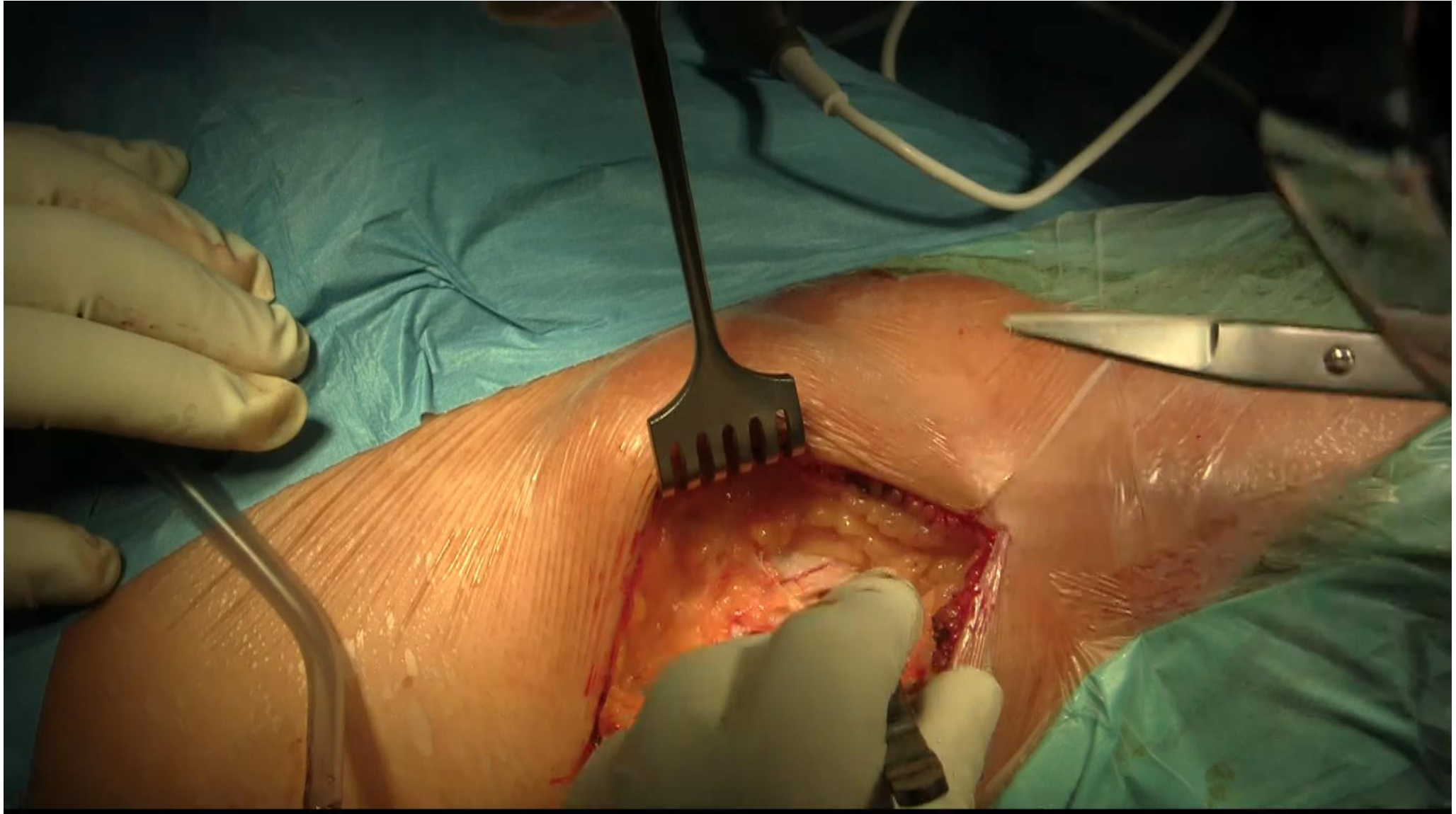


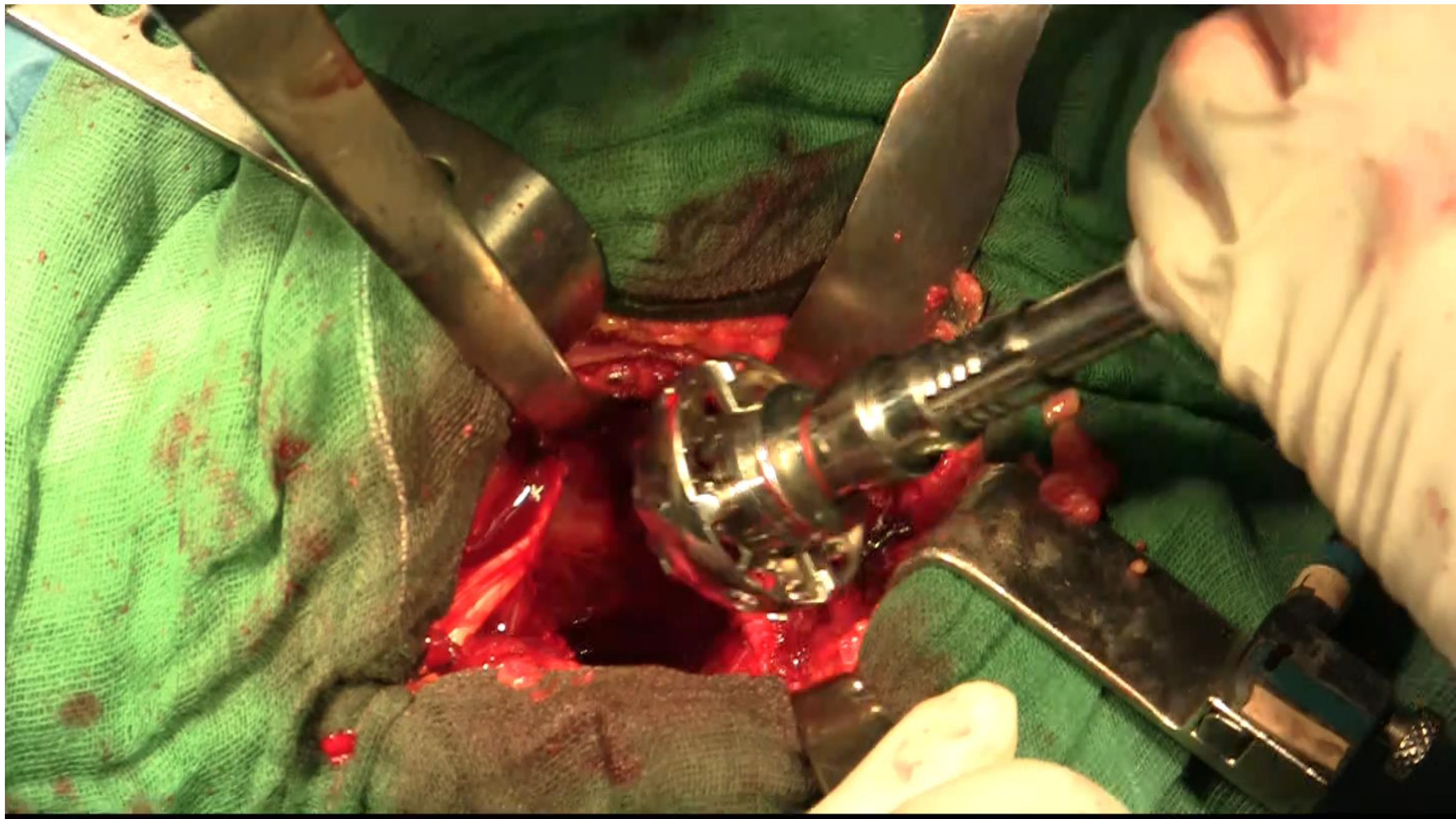
TECNICA CON FISSATORE ESTERNO

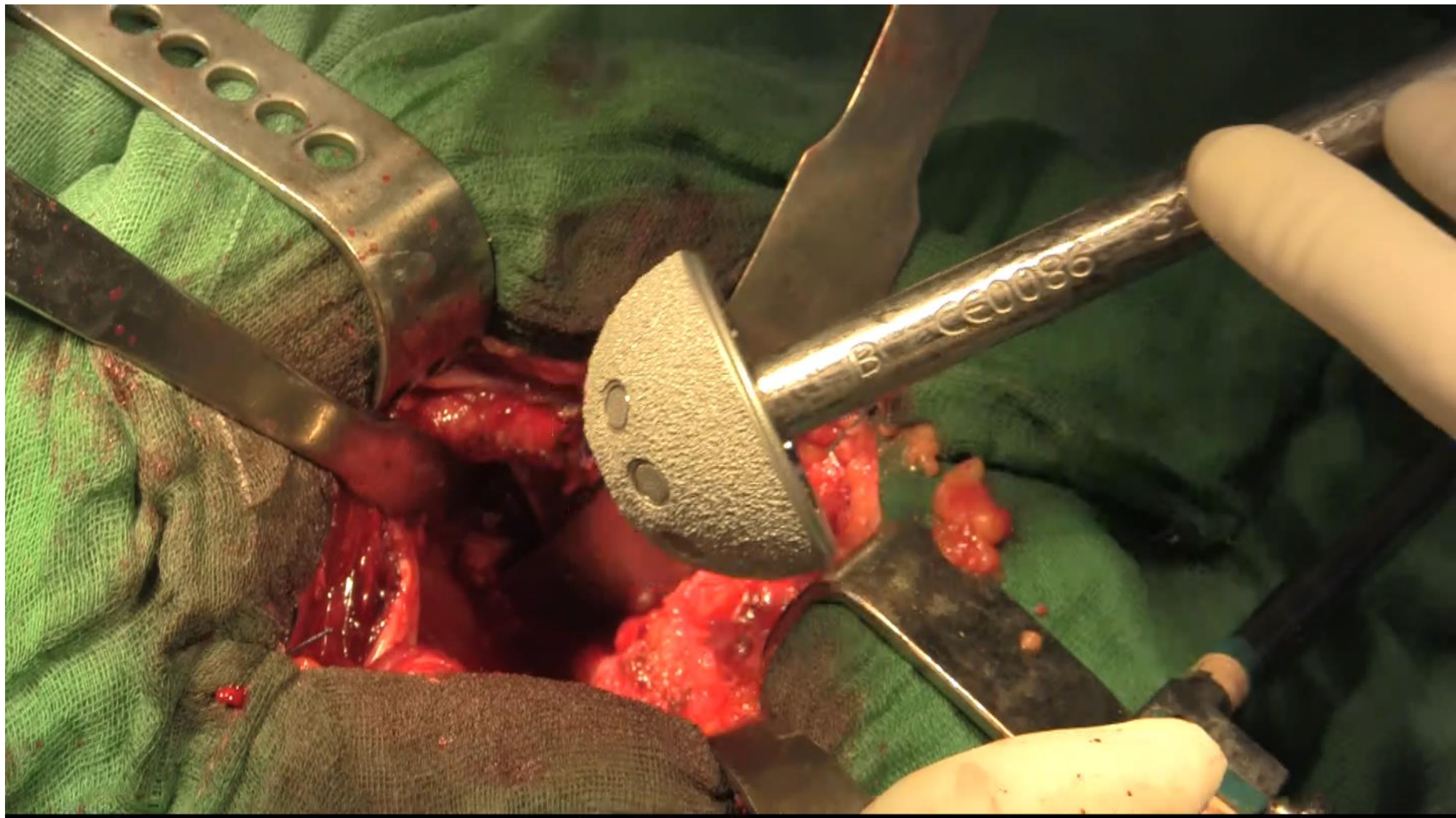


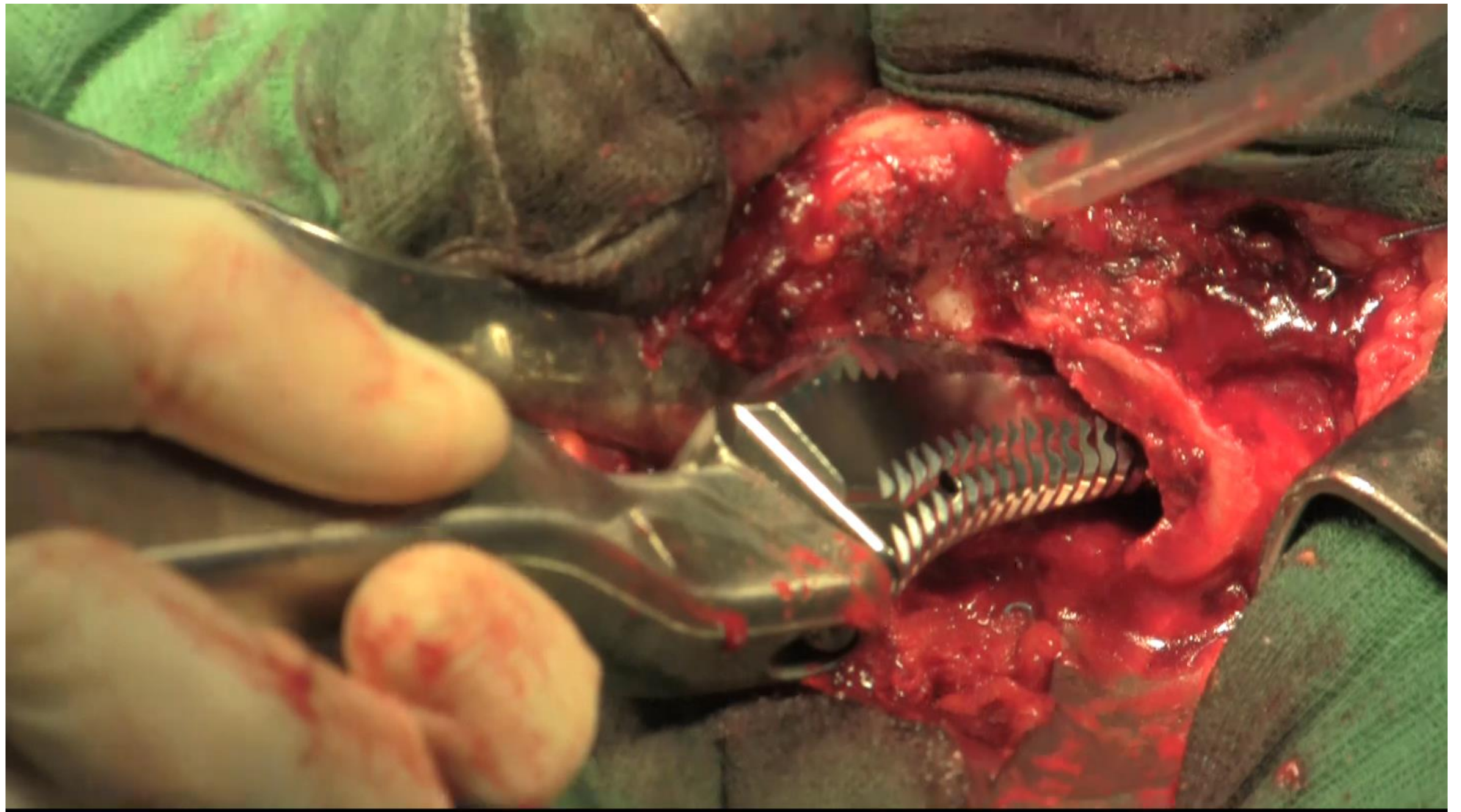


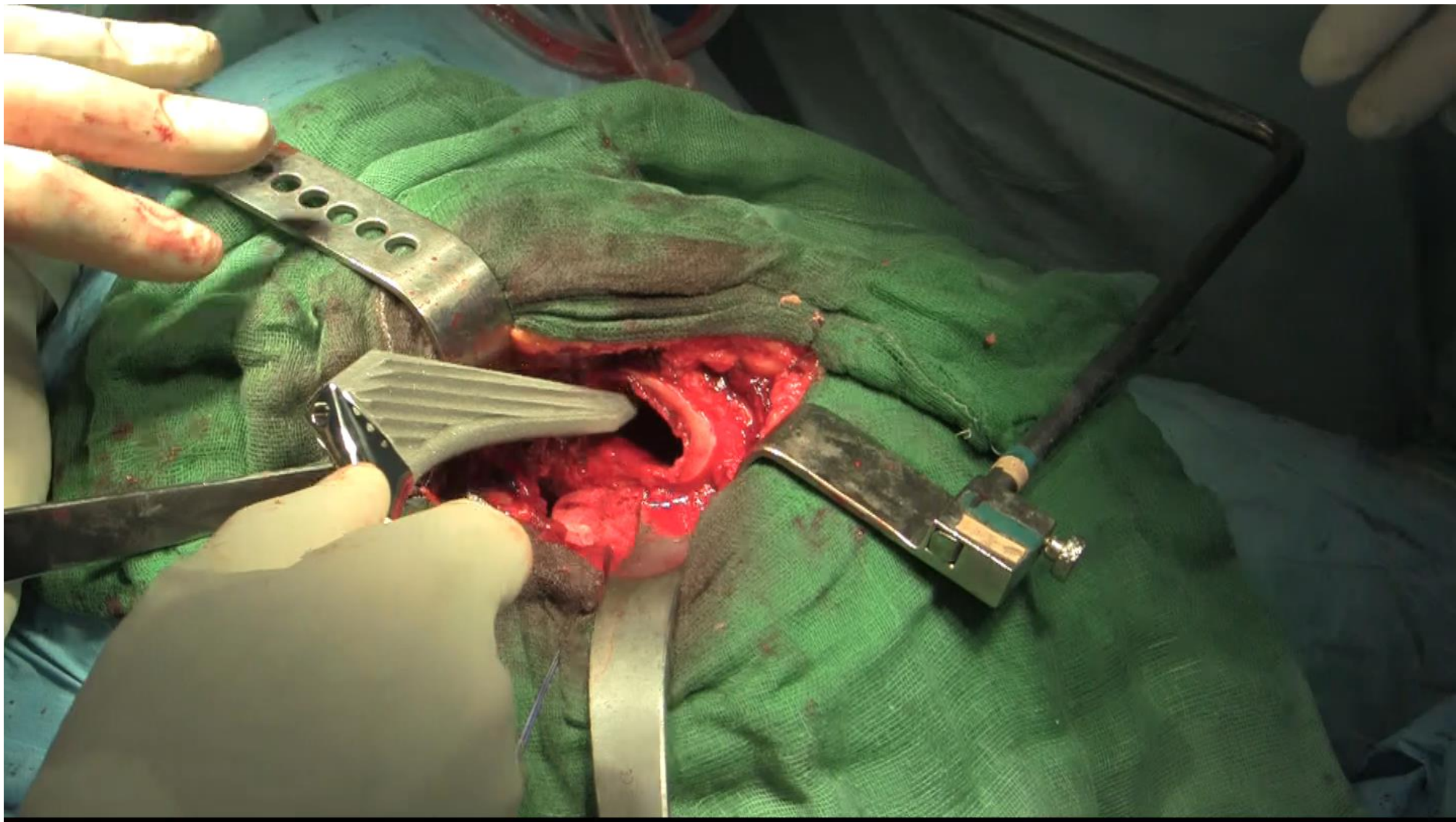
CHIRURGIA PROTESICA

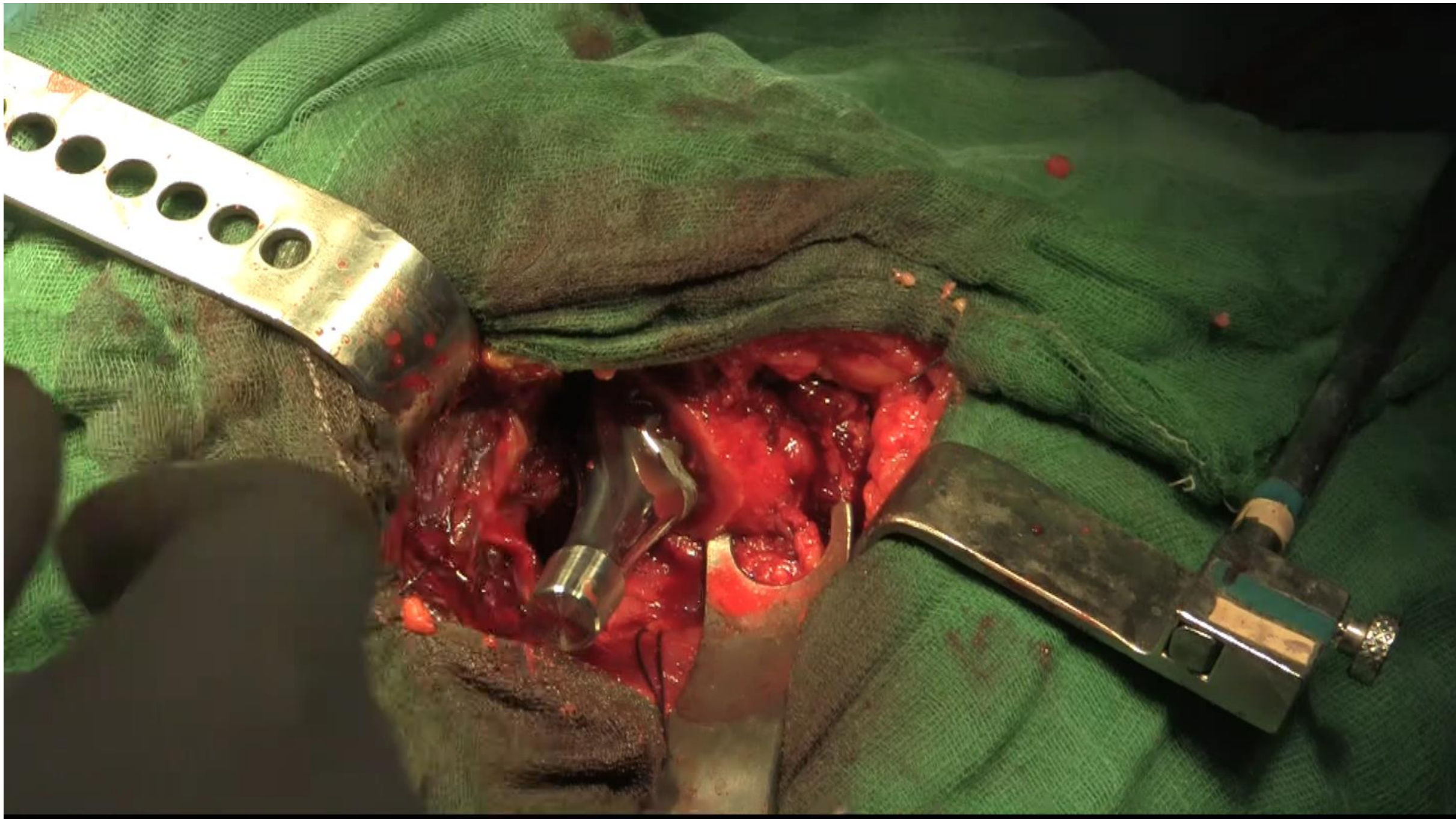


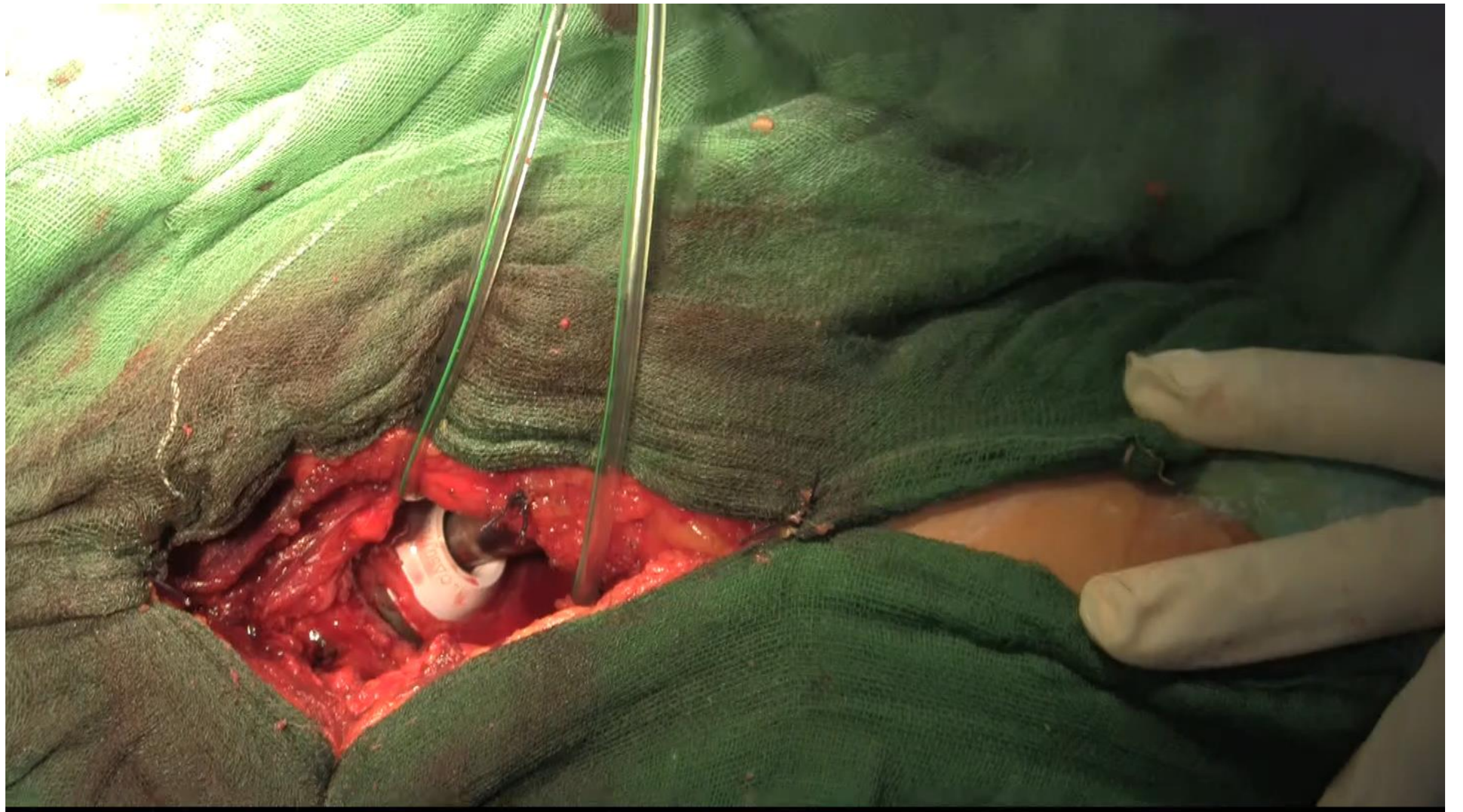


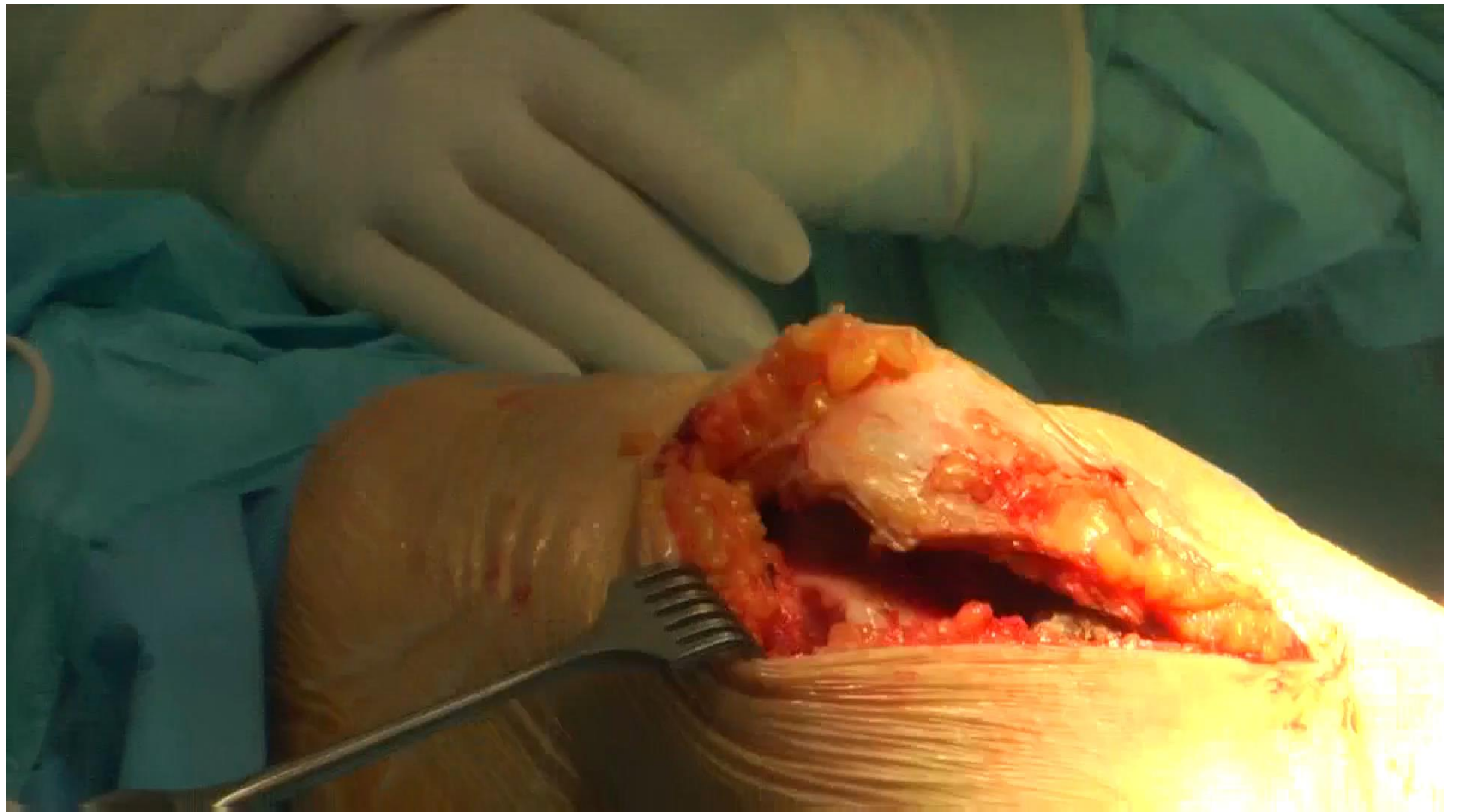


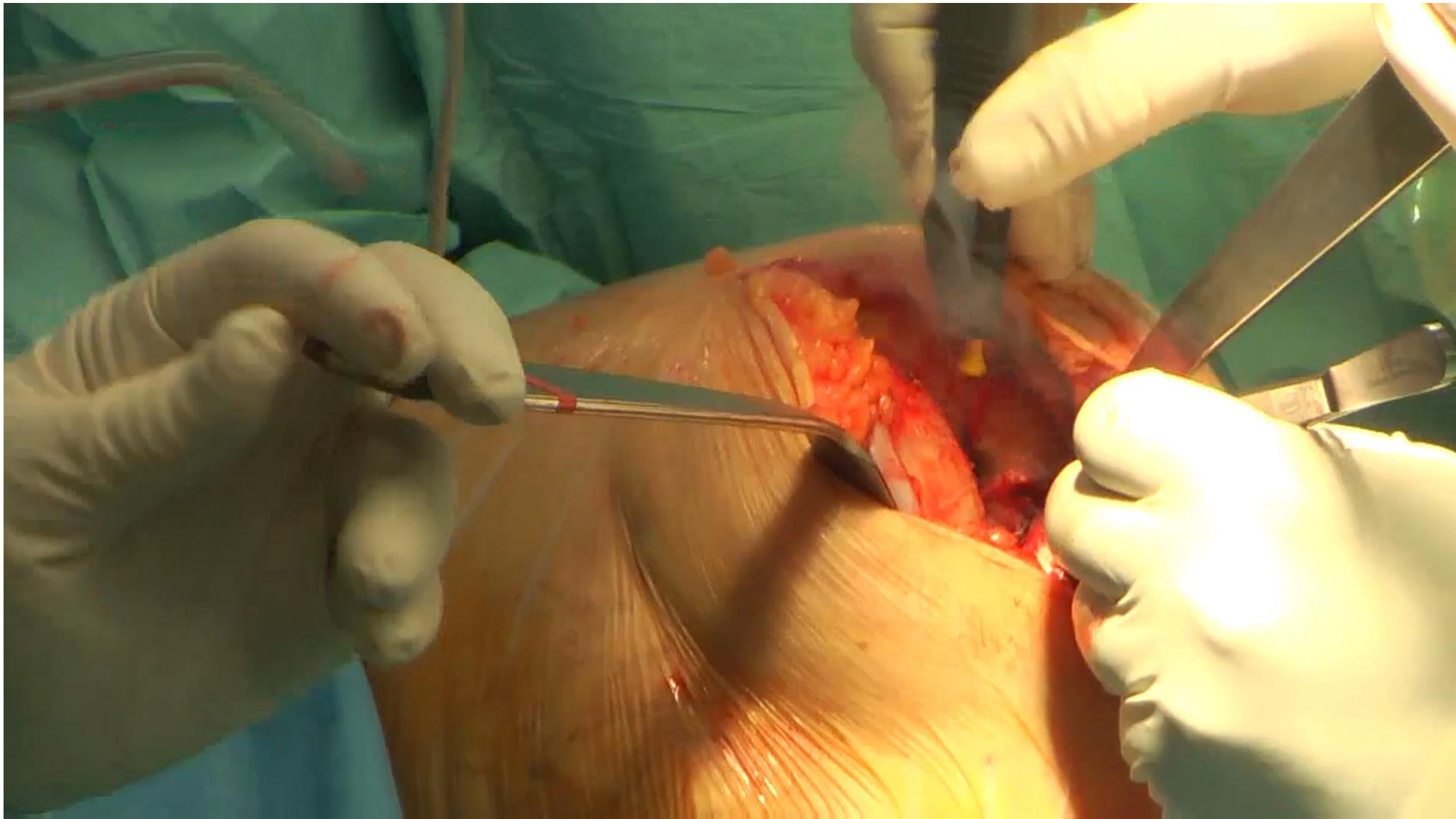


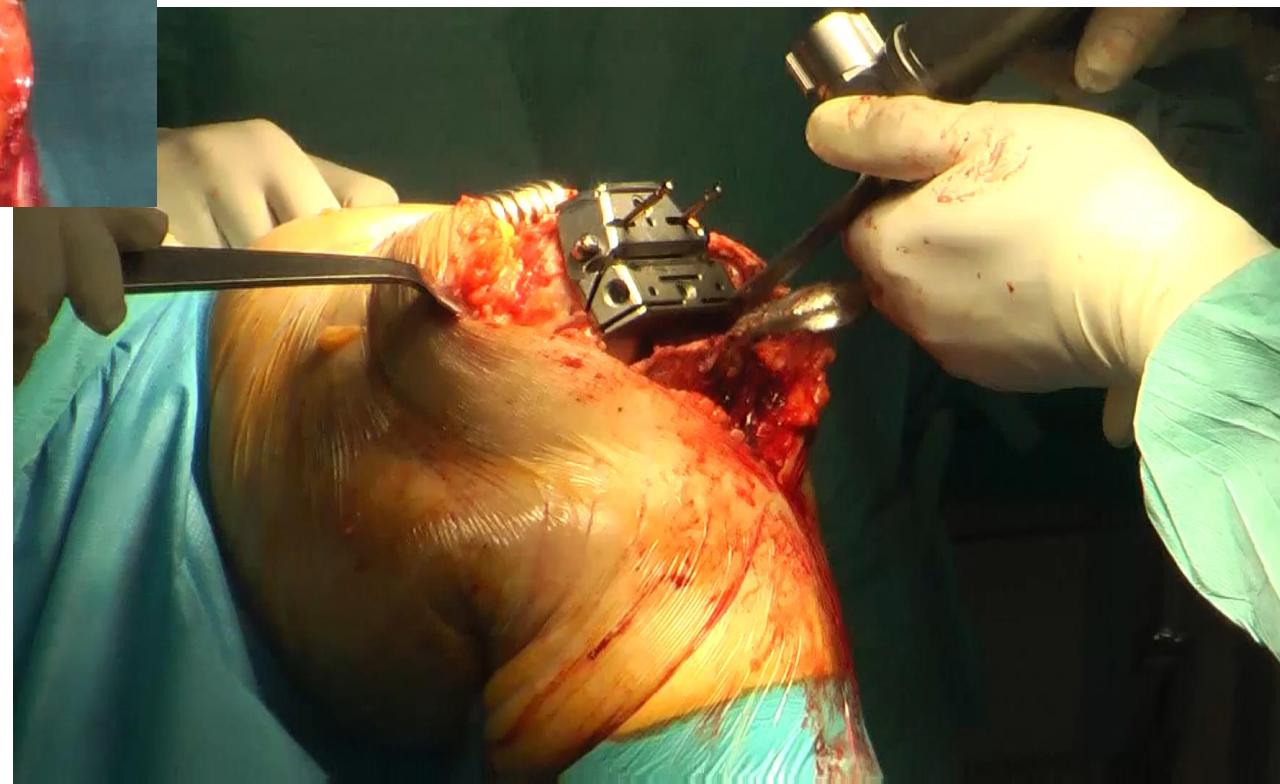
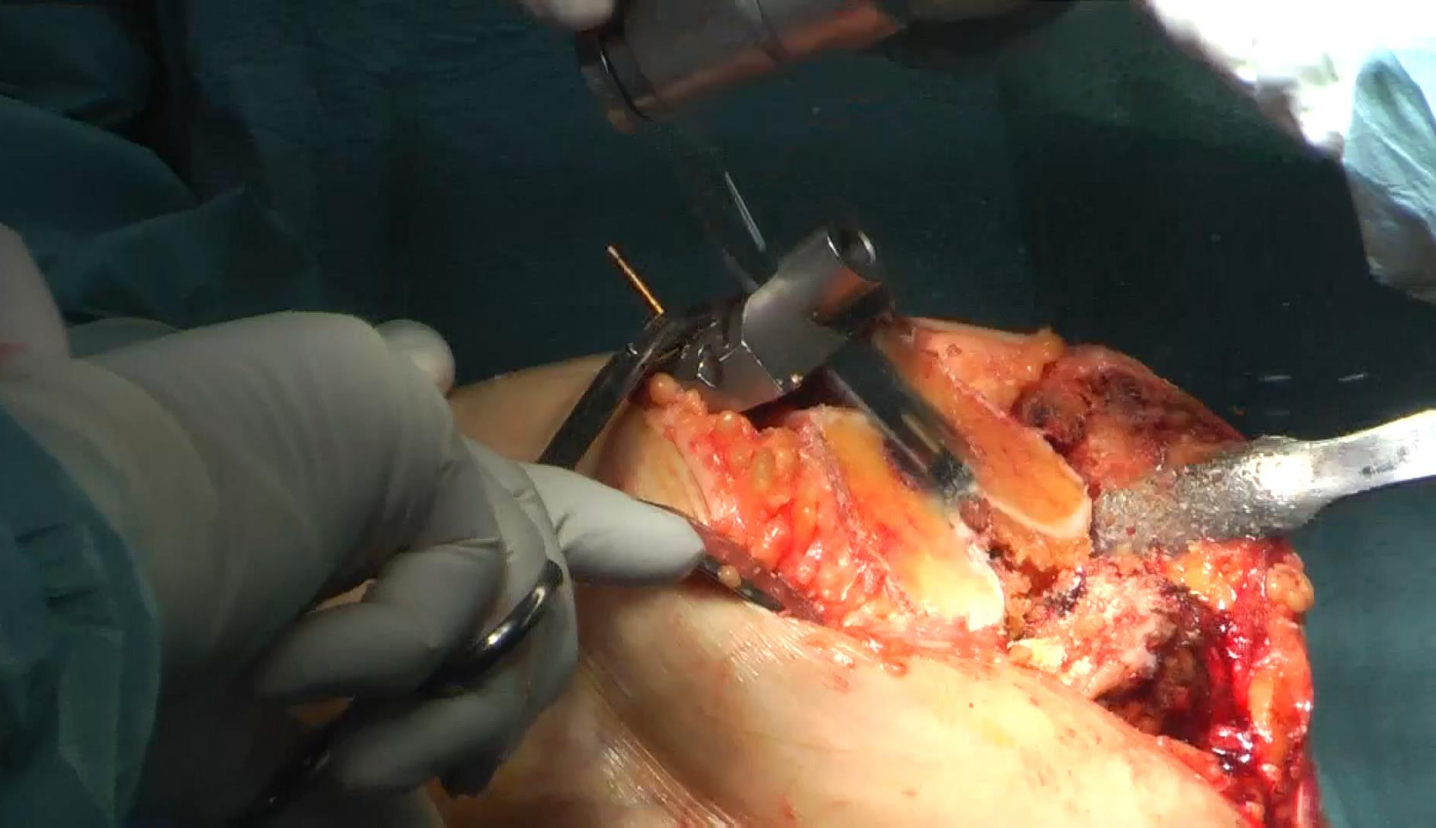


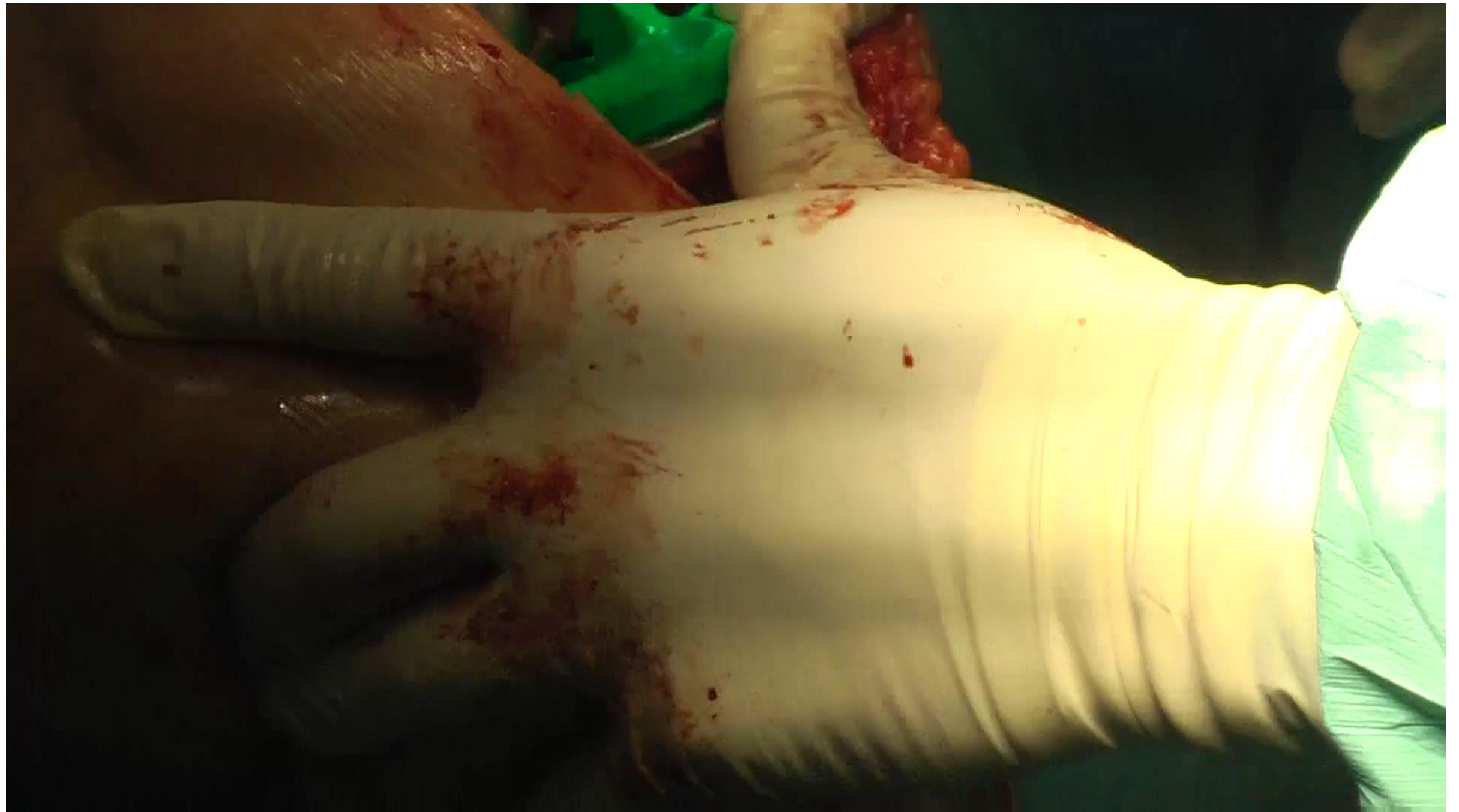






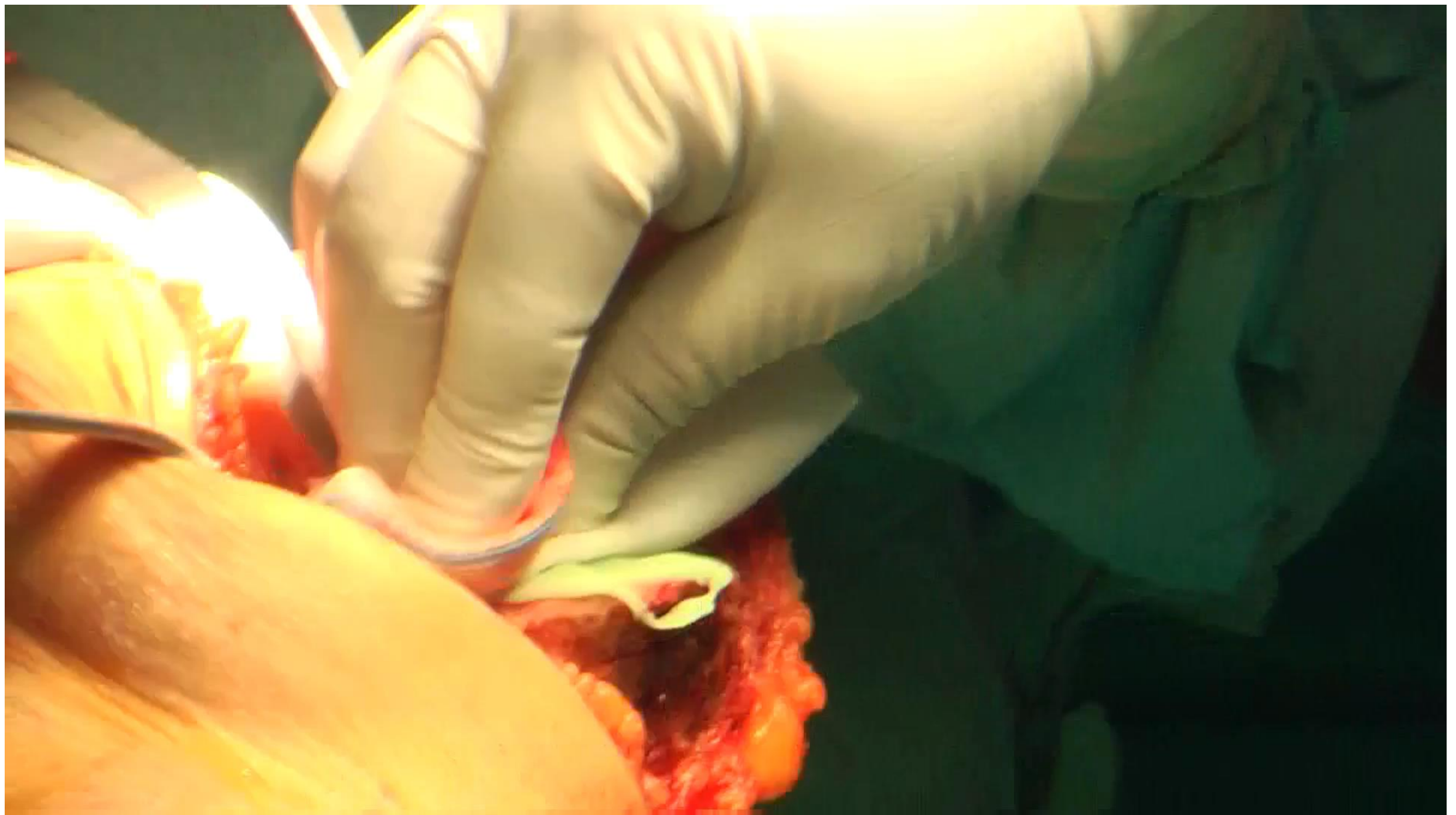


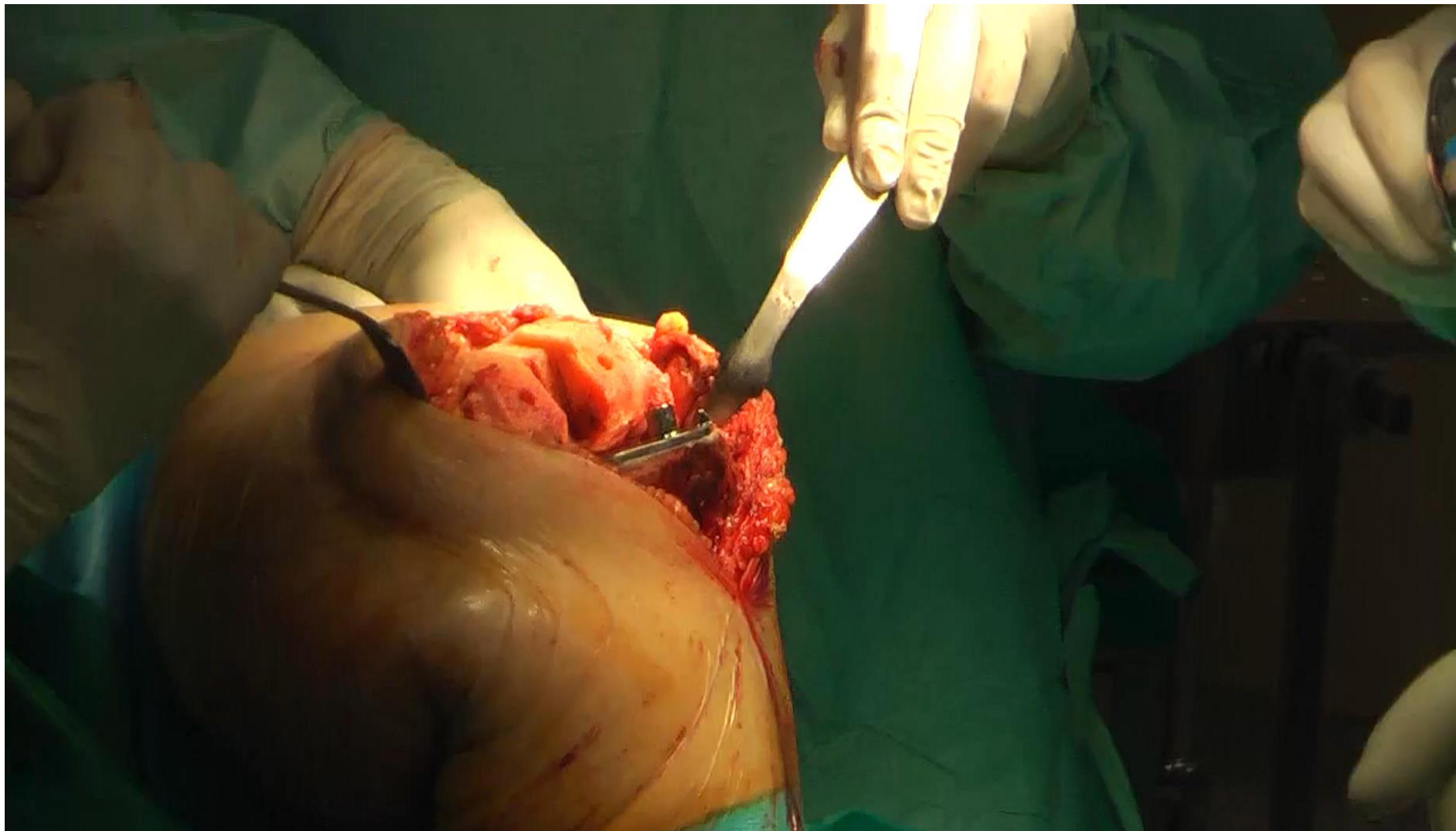


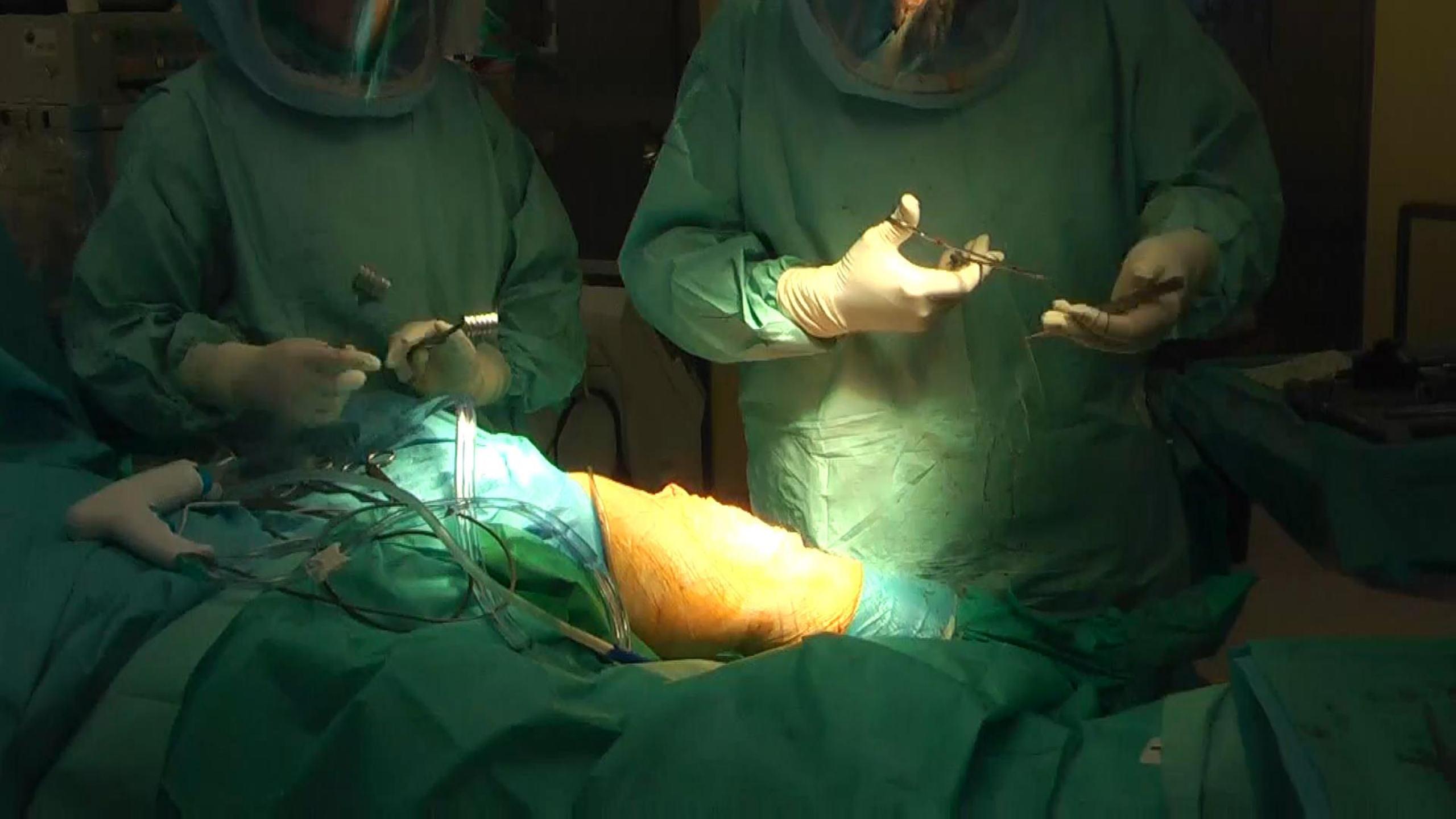




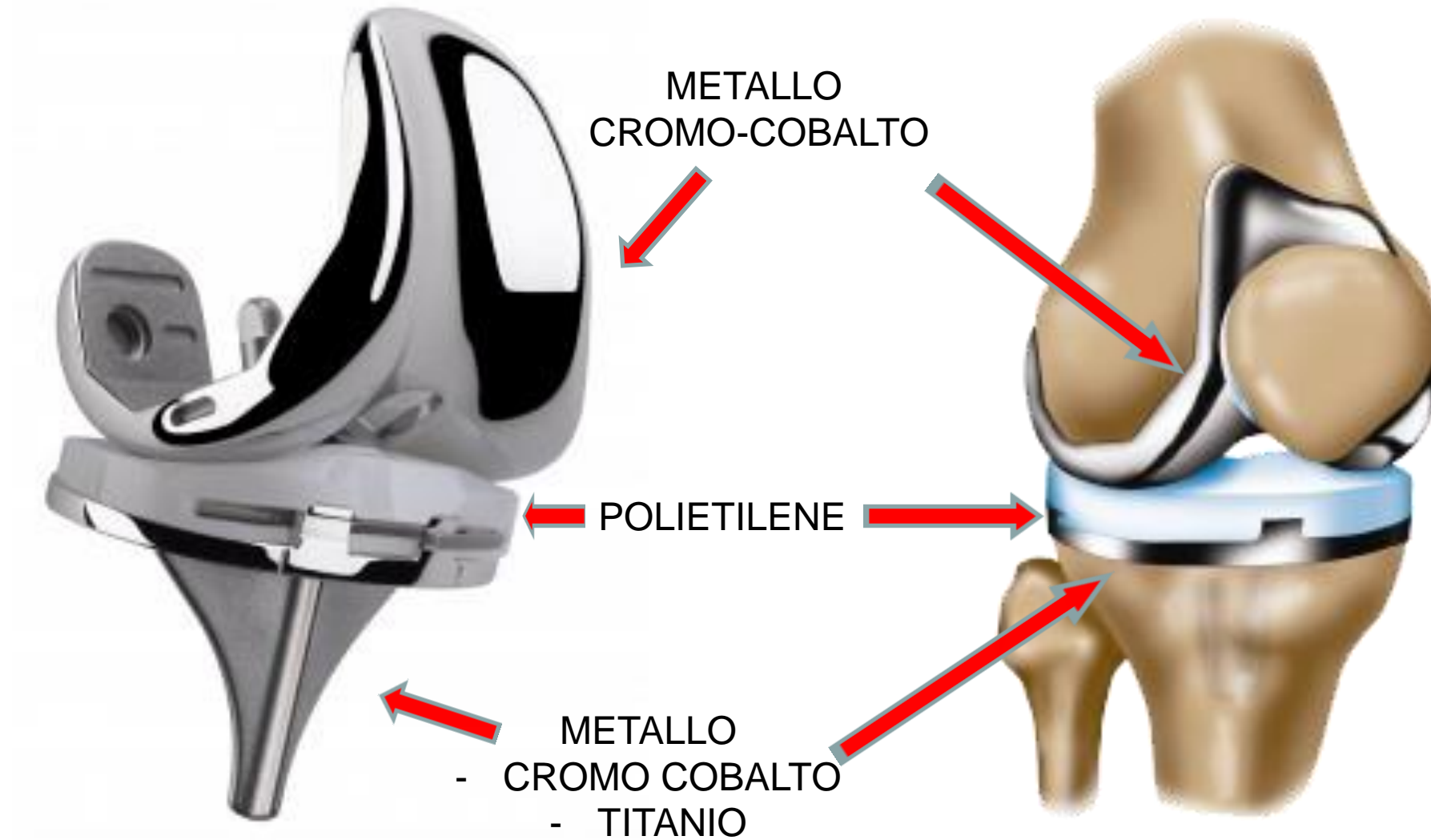




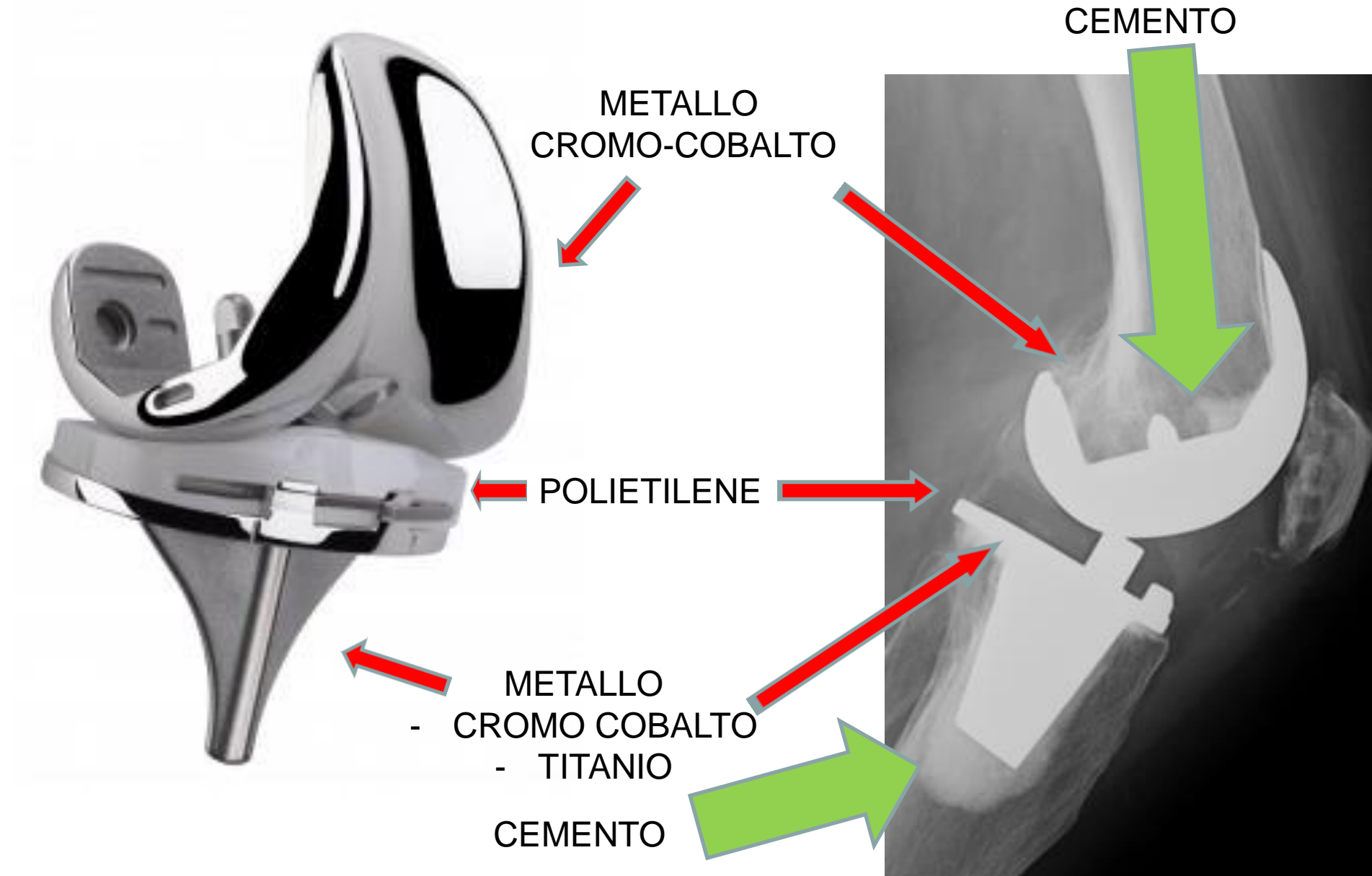




2) COME E' FATTA UNA PROTESI: GINOCCHIO



2) COME E' FATTA UNA PROTESI: GINOCCHIO



2) COME E' FATTA UNA PROTESI: ANCA



2) COME E' FATTA UNA PROTESI: ANCA



RIGETTO = IMPOSSIBILE

REAZIONI ALLERGICHE = RARISSIME MA POSSIBILI



***Avvisare se allergia o intolleranza ai metalli (bigiotteria):
Protesi anti-allergiche***

INFEZIONE

0.5-2%

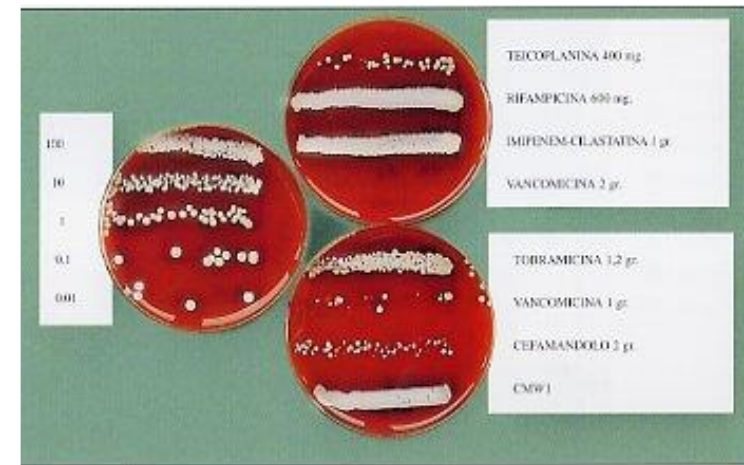
IMMEDIATE: 6 SETTIMANE

PRECOCI: 6 SETT - UN ANNO

TARDIVE: OLTRE 1 ANNO

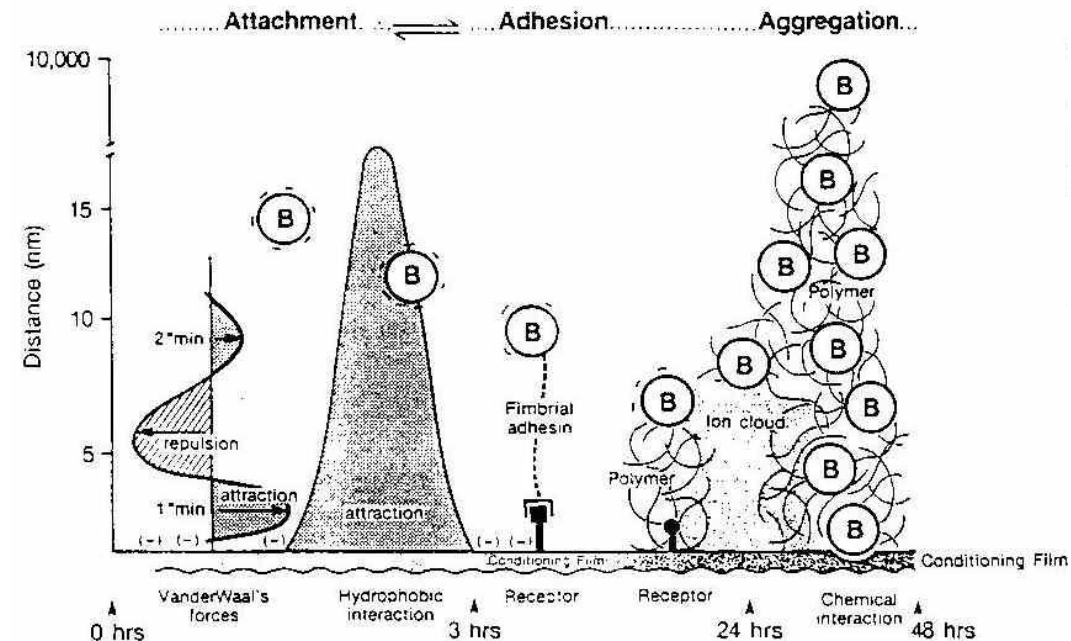
FATTORI PREDISPONENTI:

- Diabete Mellito
- Obesità
- Fumo
- Foci infettivi
- Artrite Reumatoide
- Interventi precedenti



AGENTE:

- Stafilococco Aureo*
- Stafilococco Coagulasi negativo*
- Streptococco*
- Gram -



LESIONI VASCOLARI

Rare 0.3%

VASI:

- Art. iliaca esterna
- Art femorale comune
- Vena iliaca esterna



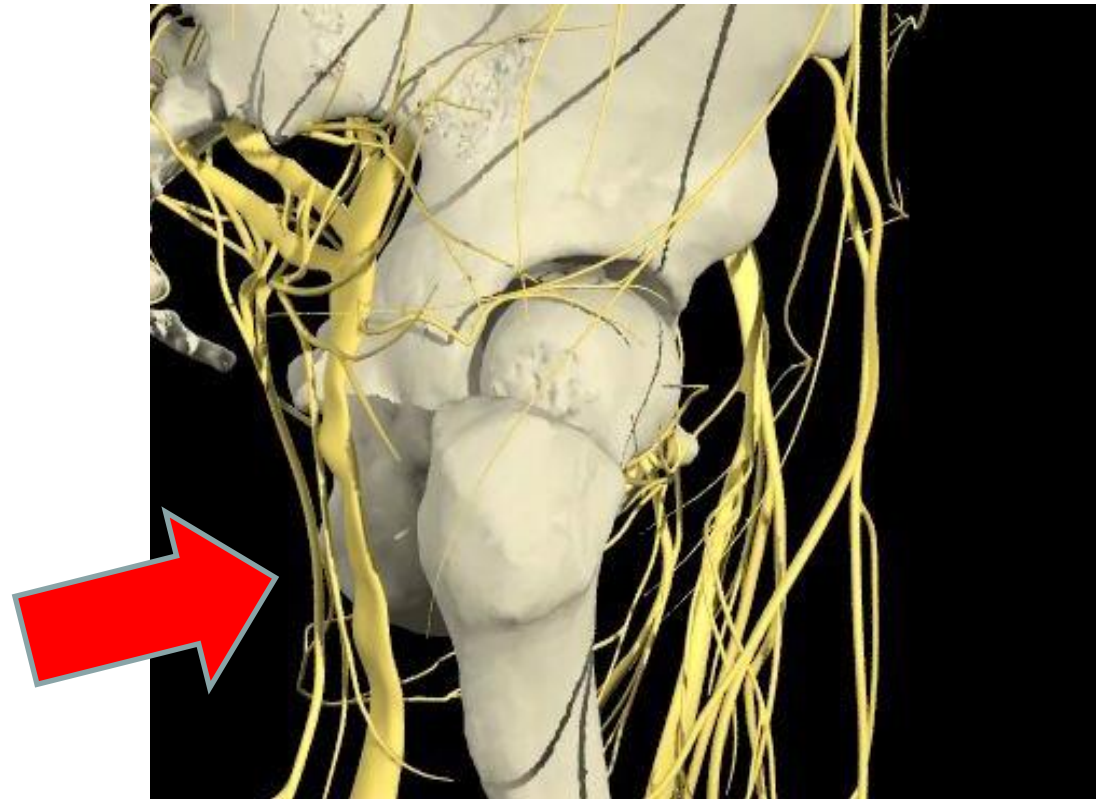
LESIONI NERVOSE

0%-3%

N. SCIATICO

FATTORI DI RISCHIO:

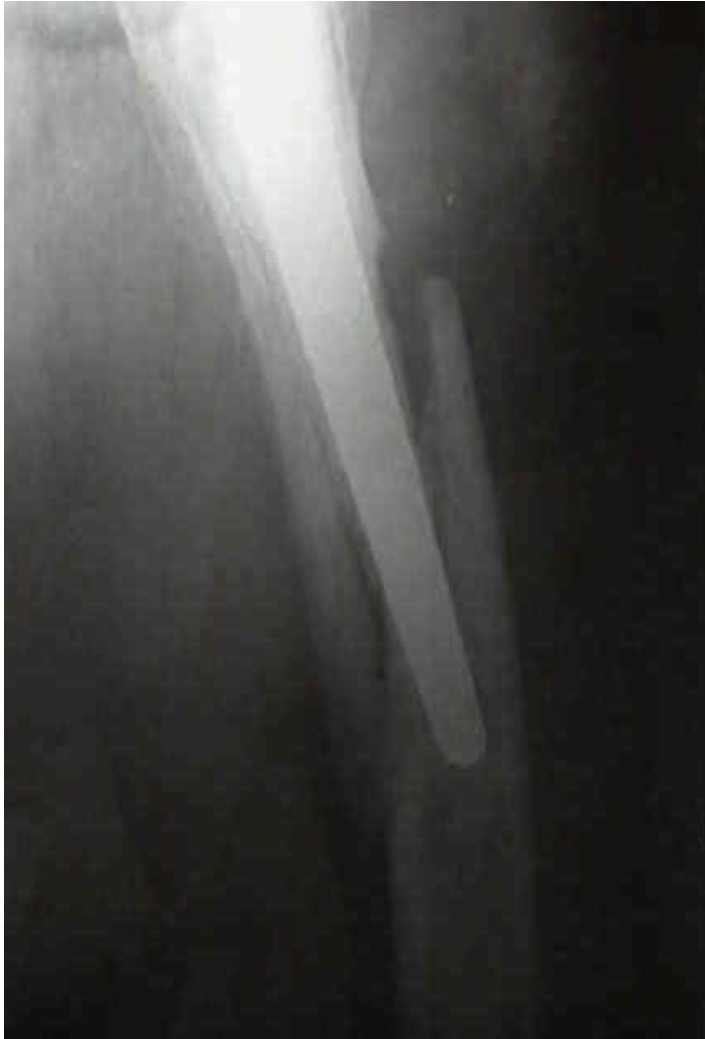
- Chirurgia di revisione
- Displasia congenita dell'anca
- Allungamento arto



LE FRATTURE

SEDE DI LESIONE

- Trocantere
- Calcar
- Metafisi
- Diafisi
- Bacino



LUSSAZIONE

1-15%

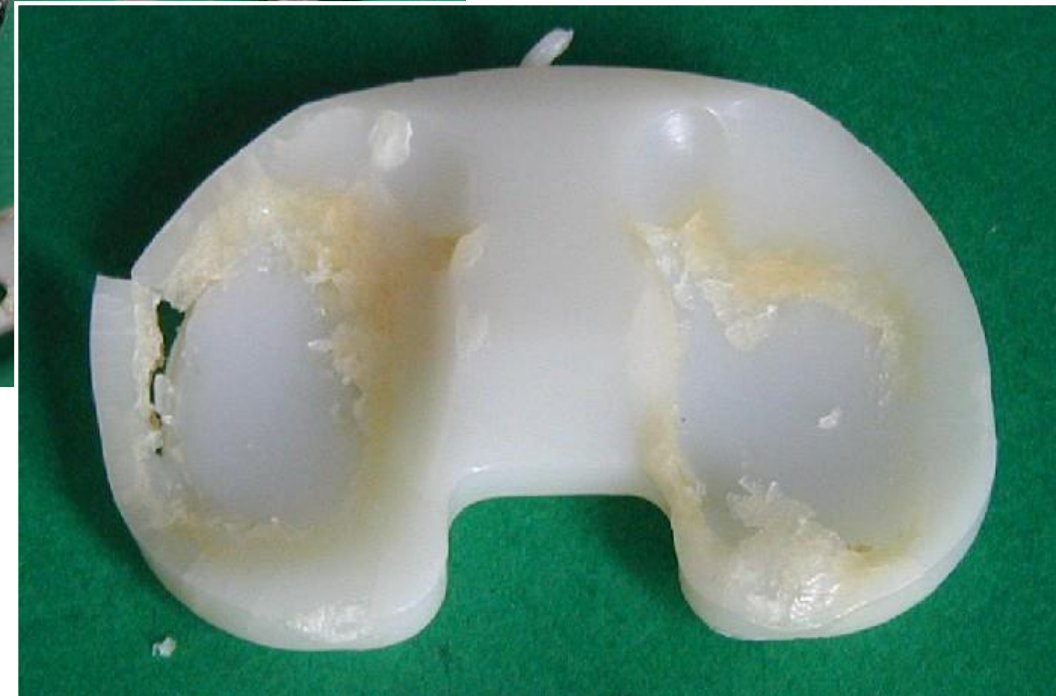
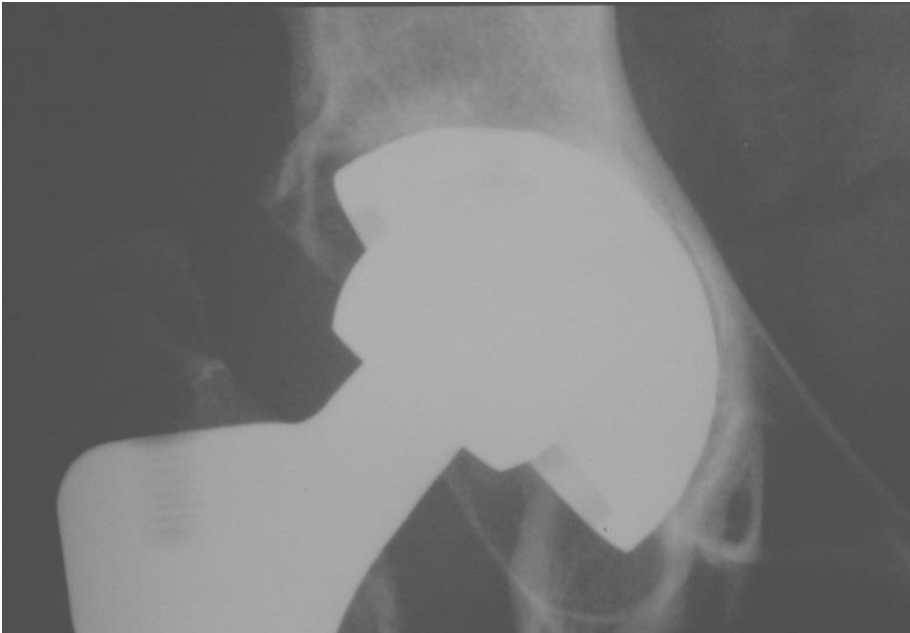
2-3 MESI POSTOPERATORI





















FALLIMENTO MECCANICO

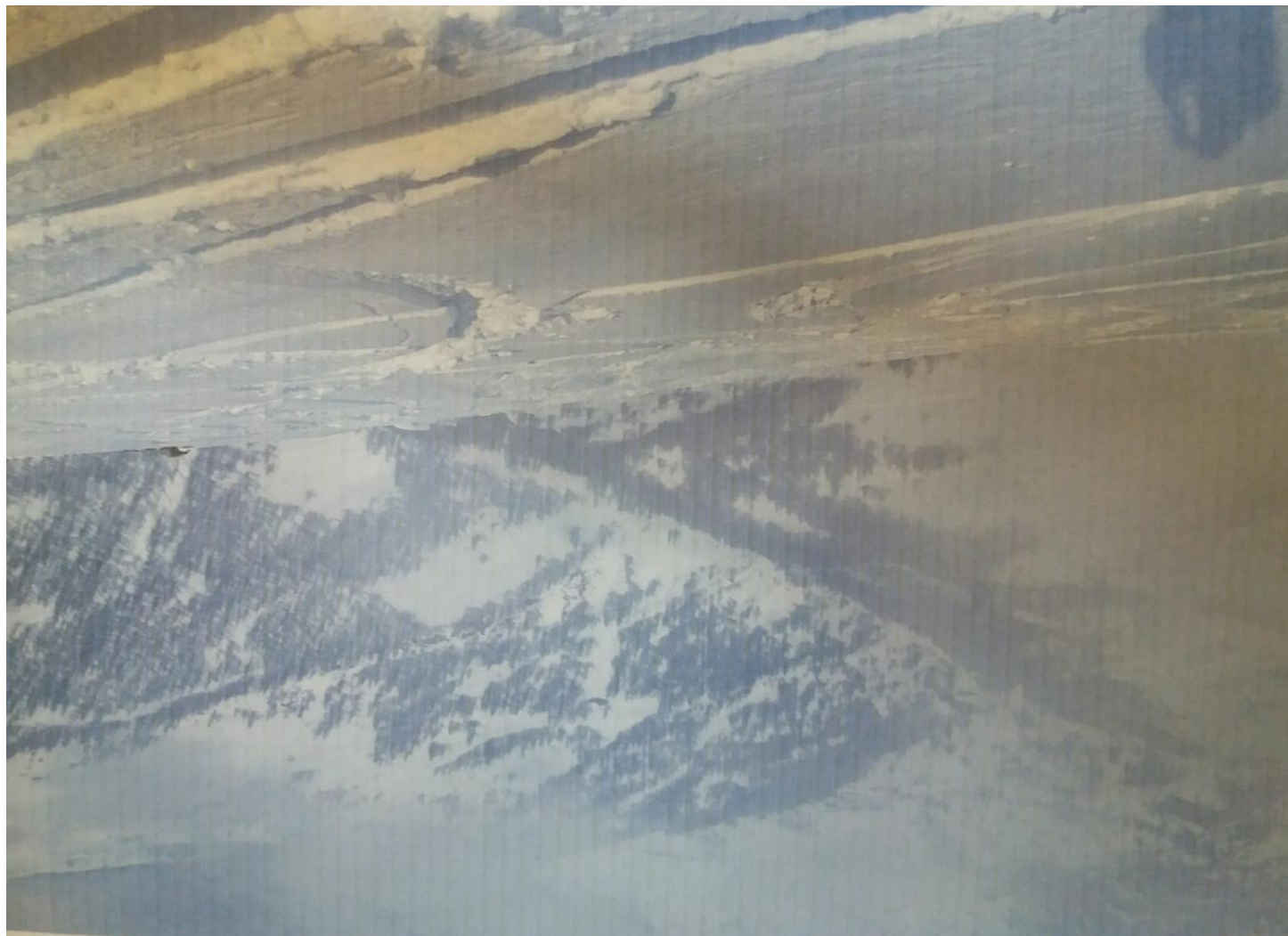
1) USURA – CONSUMO

2) ROTTURA



5) BENEFICI: COSA PUO' DARE LA PROTESI

	ANCA	GINOCCHIO
DOLORE		
PASSEGGIATE		
CORSA		
SCI		
TENNIS		
GOLF		
BICI		
BOCCE		
NUOTO		

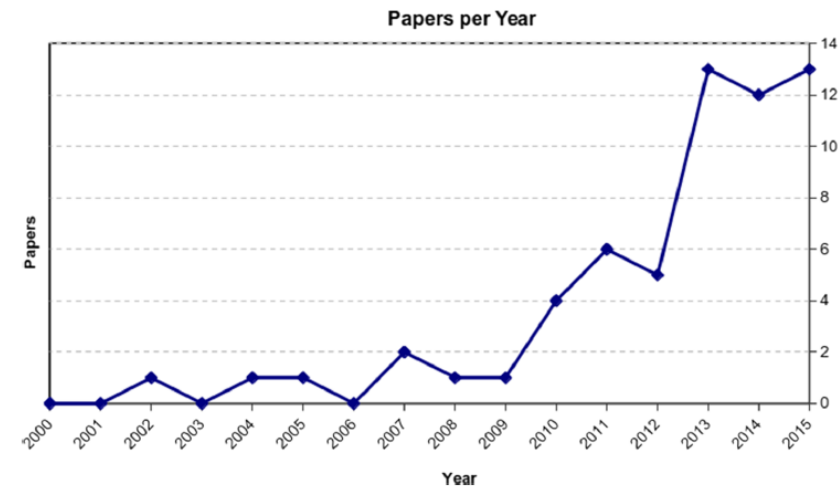


Literature

MSCs: A great seductive potential to the orthopaedic community

CLINICAL LITERATURE
SYSTEMATIC REVIEW
60 clinical papers on MSCs
for cartilage regeneration

MSCs TYPE	PAPERS
BMConcentrate	20
BMSCs	16
ADSCs	17
SDSCs	1
PBSCs	5



- **9** Case report
- **30** Case series
- **14** Comparative
- **7** RCT

Filardo G, Perdisa F, Roffi A, Marcacci M, Kon E. Stem cells in articular cartilage regeneration. *Journal of Orthopaedic Surgery and Research*. 2016

Main sources of MSCs

ADULT

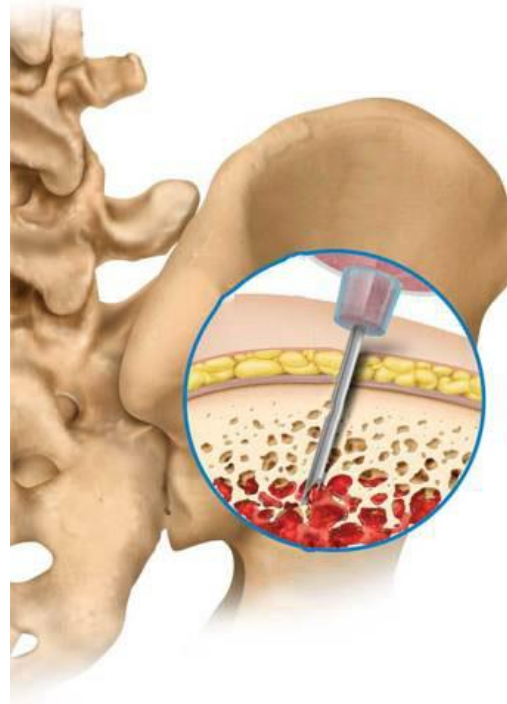
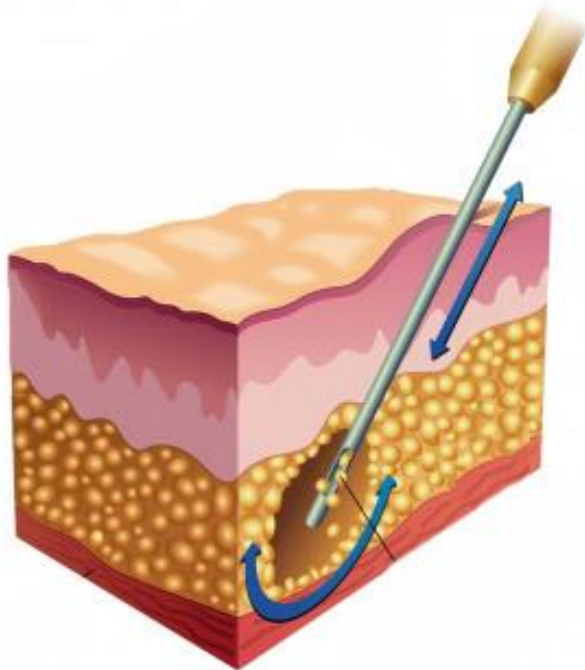
Bone marrow (BMSC)

Adipose tissue (ASC)

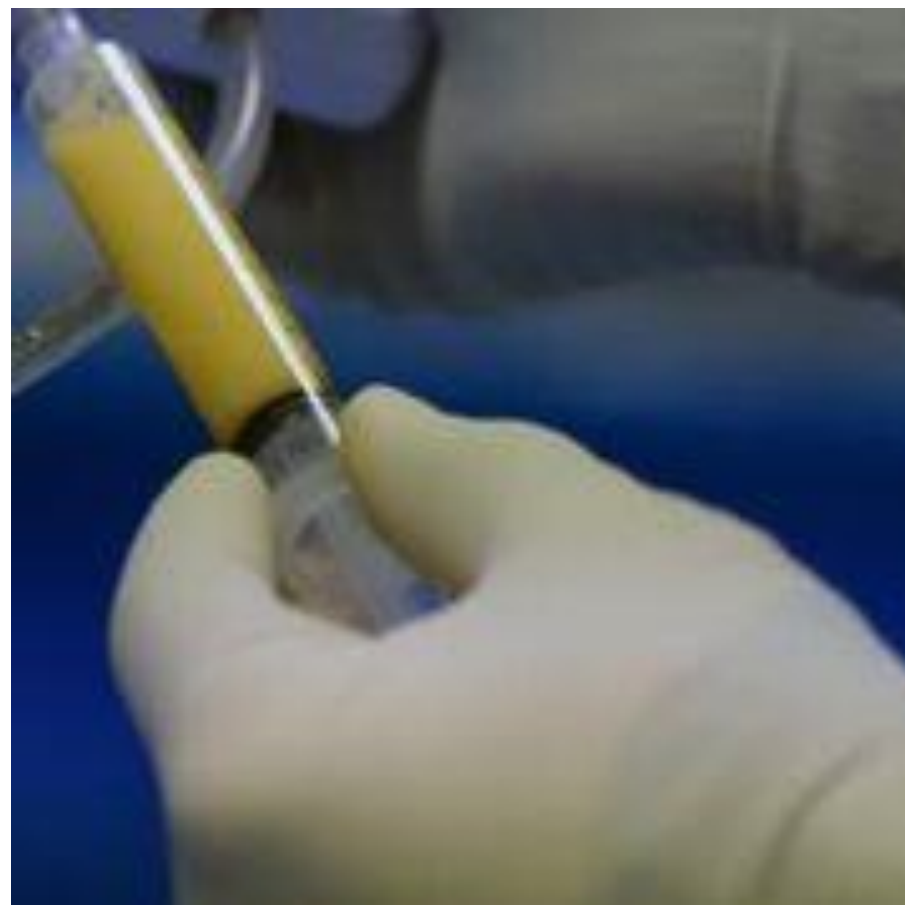
Tendon (TSPC)

Synovial fluid (SF-MSC)

Peripheral blood (PBMSC)







Adipose tissue as a preferable source of MSCs

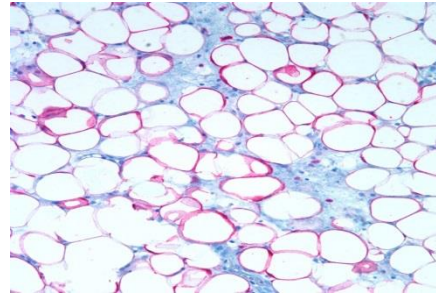
- Easy to access and different options for the harvesting, less pain
- Richer in MSCs frequency than bone marrow (300-fold more)

Table 1 MSC and CFU-F concentrations and frequency derived from adult and near-fetal tissues

Human tissue source	Native CFU-F concentration range per ml of fluid/tissue	MSC frequency range (CFU-F/10 ⁶ nucleated cells)	References
Bone marrow aspirate	109–664 ^a	10–83	91,183–187
Adipose/lipoaspirate	2058–9650	205–51 000	98,184,188–190
Dermis	Not reported	74 000–157 000	89
Umbilical cord blood	0.06	0–0.02	184,185,191,192
Peripheral blood	0	0–2 ^b	185,192,193
Synovial fluid	4–14	2–250	92,194
Amniotic fluid	3	9.2	195

^aBased on average of 8×10^5 nucleated cells per ml bone marrow aspirate.¹⁸³

^bOccurance of CFU-F in peripheral blood requires systemic treatment with GCSF.

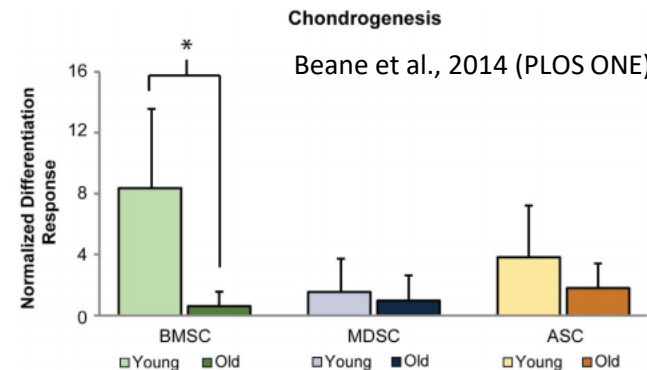


Baer et al., 2012 (Stem Cells International)

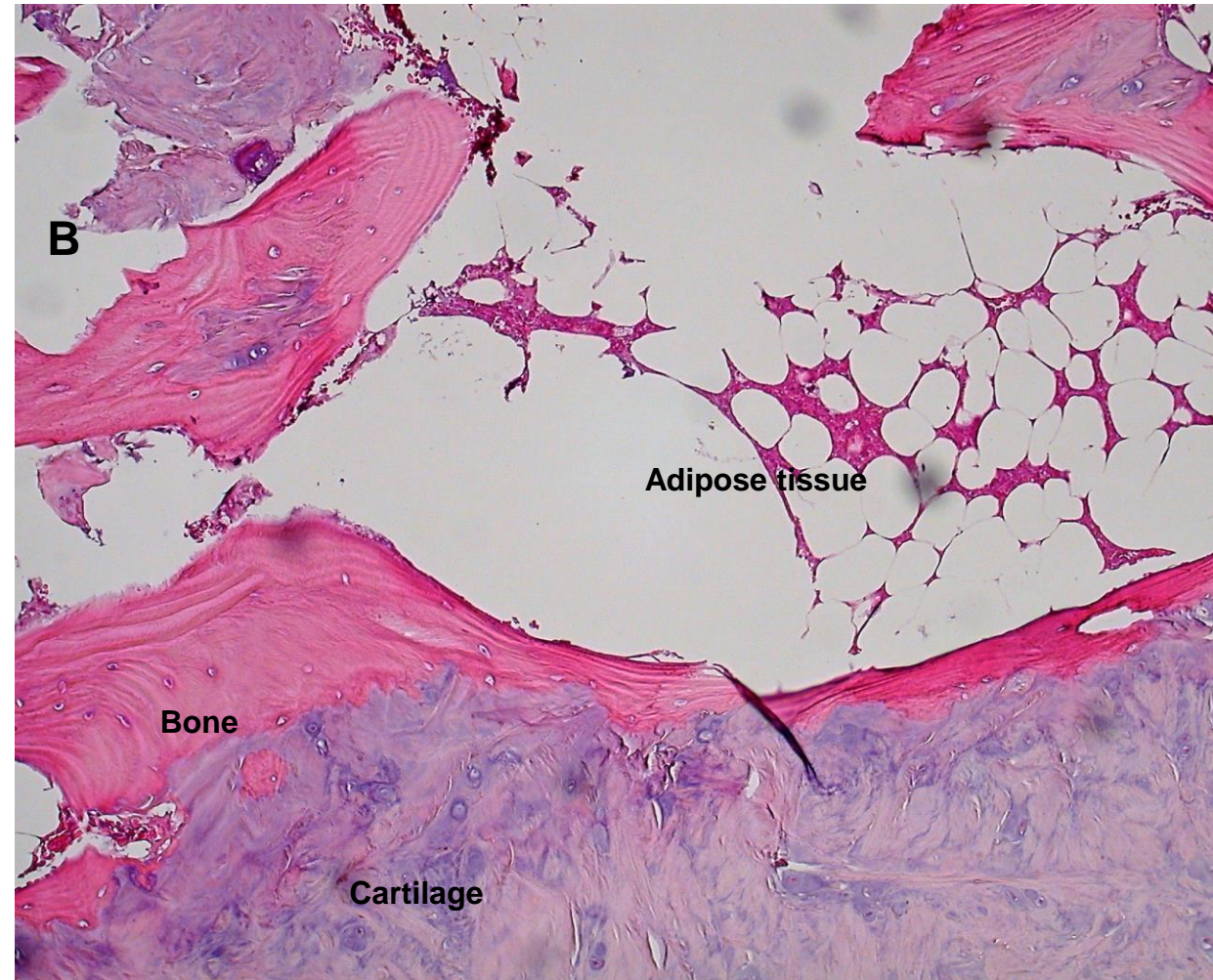
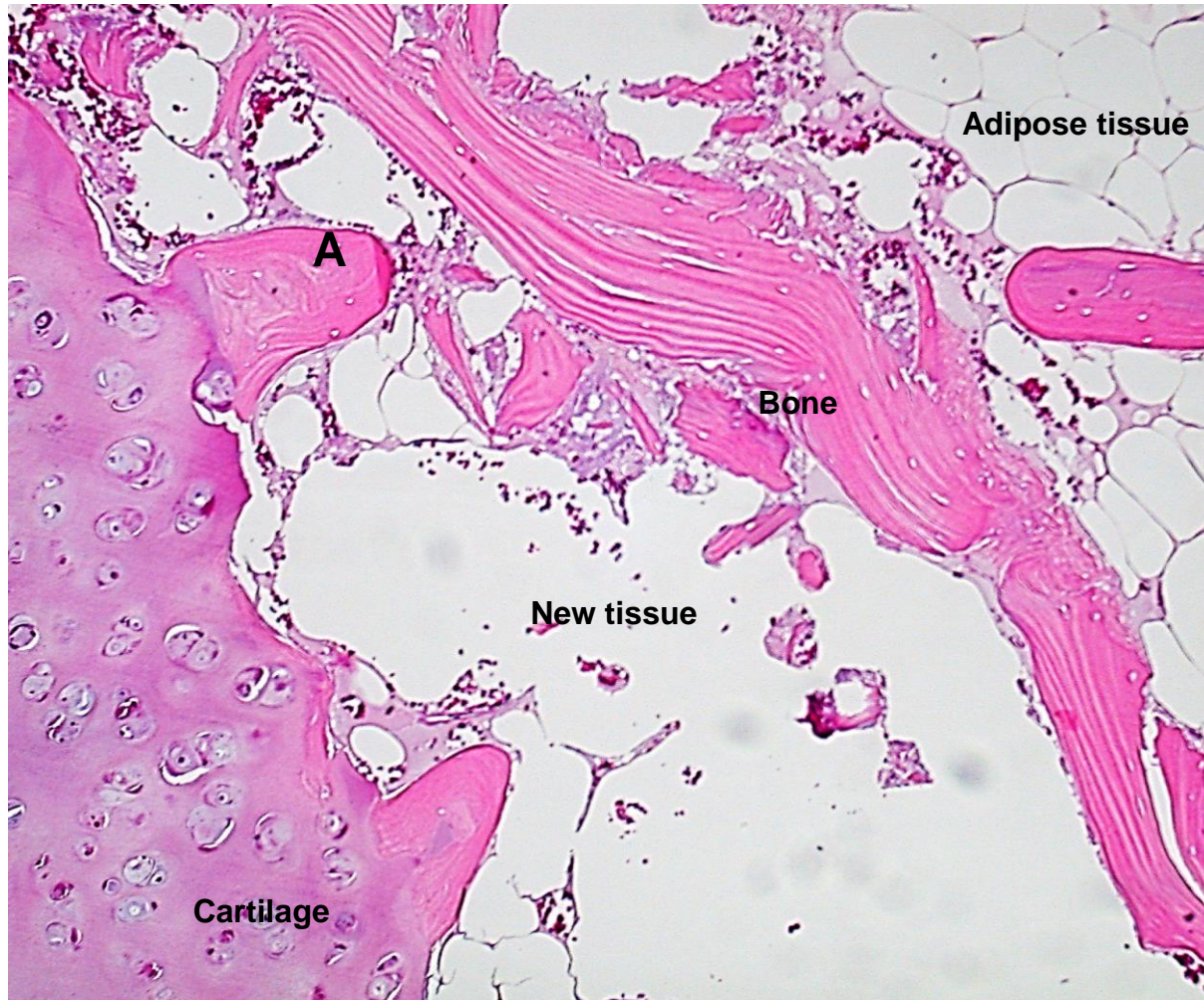
- Adipose Tissue derived MSC are not impaired by aging

- *Aged ADSCs grow as young ADSCs while aged BMSCs proliferation is impaired*
- *Osteogenic differentiation of ADSCs is not affected by age like BMSCs*

Chen et al., 2012 (Cell Mol Med)



HYSTOLOGIC FINDINGS



H&E staining showed the presence of new tissue formations in knee biopsy of patient previously treated with concentrated adipose tissue injection (A). Neo-tissue formation was not evident in joint of untreated patients (B).

Grazie dell'attenzione....