

Distal femur; growing prosthesis / f / 51/2 yr

♀ 51/2 yo

Nov 11, 2008

Palpable tumor L distal medial femur

Short history of days / weeks

PMH:

none

Distal femur growing prosthesis / f / 51/2 yr

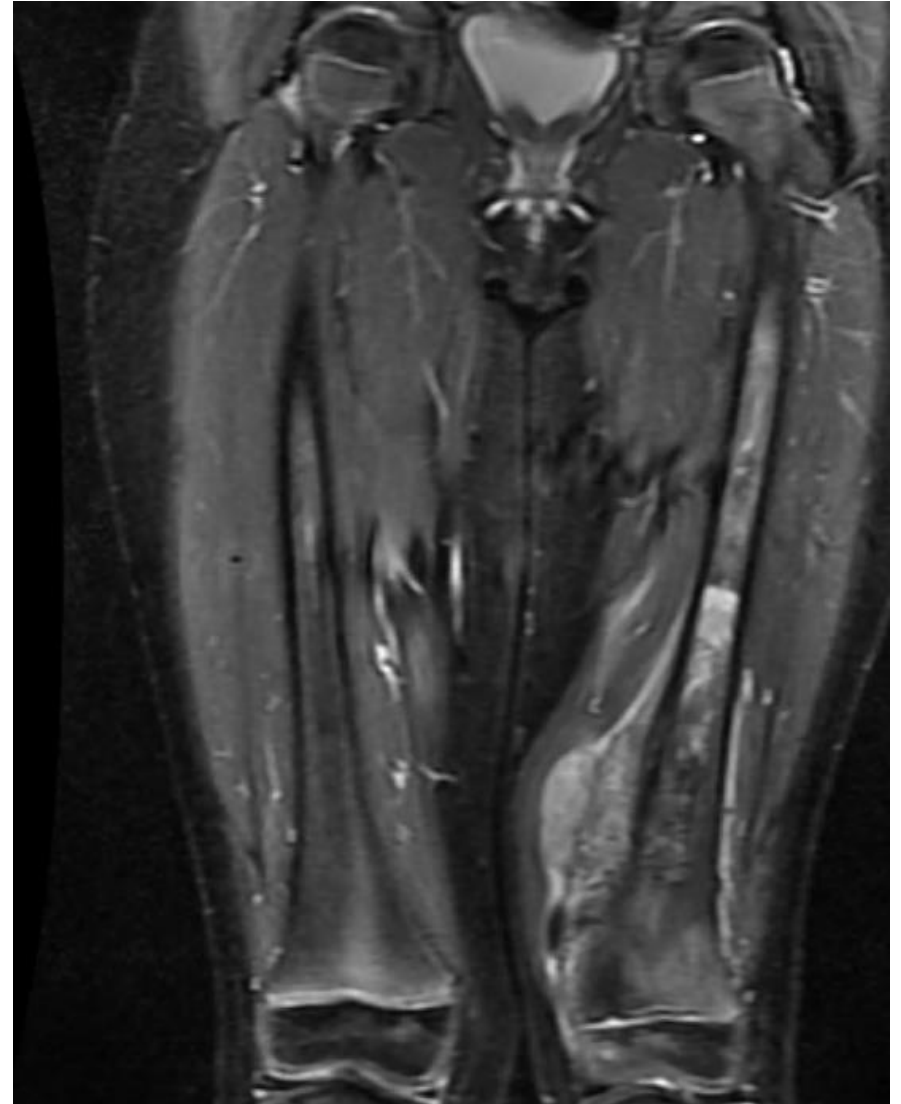
Nov 11, 2008



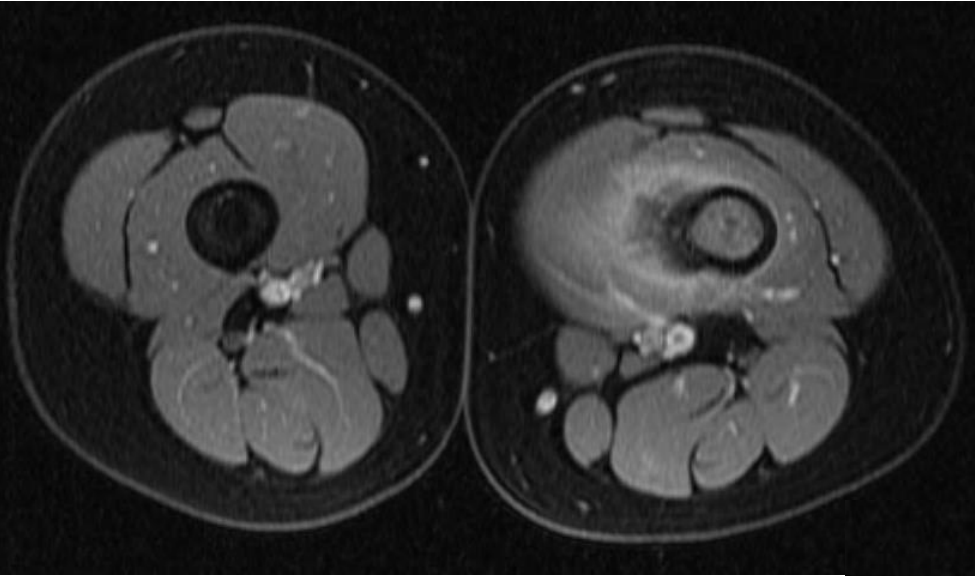
Distal femur growing prosthesis / f / 51/2 yr



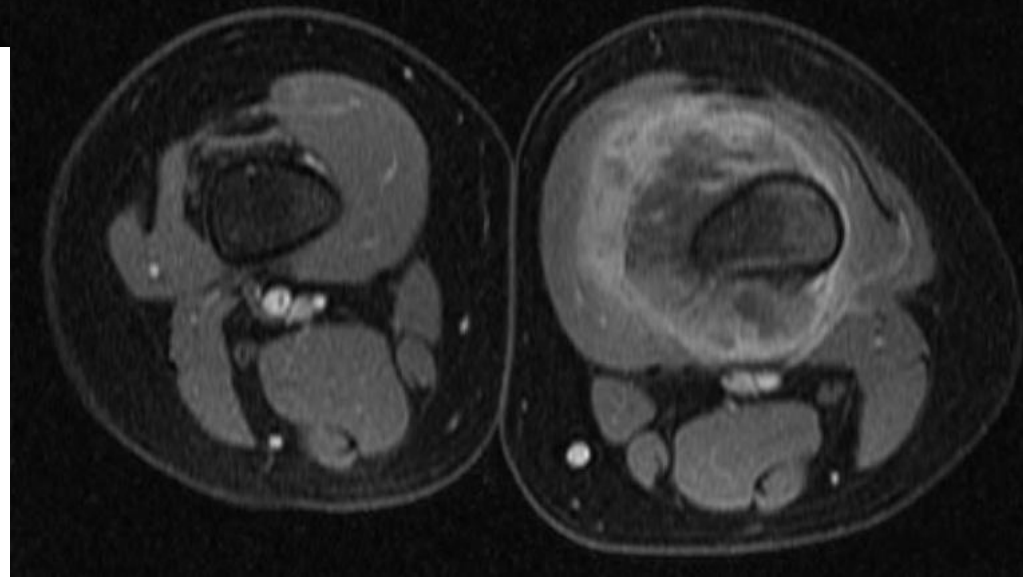
Nov 12, 2008

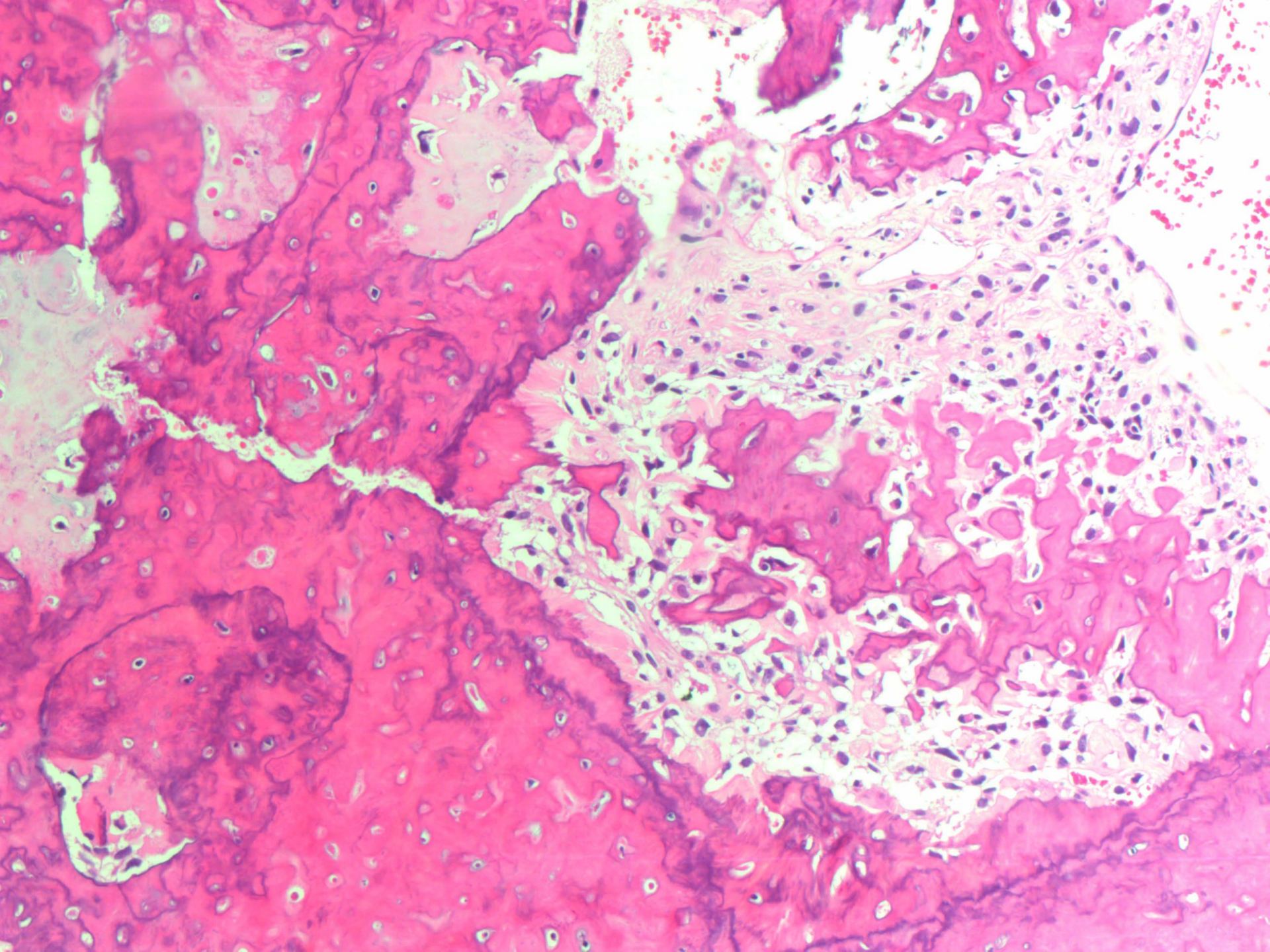


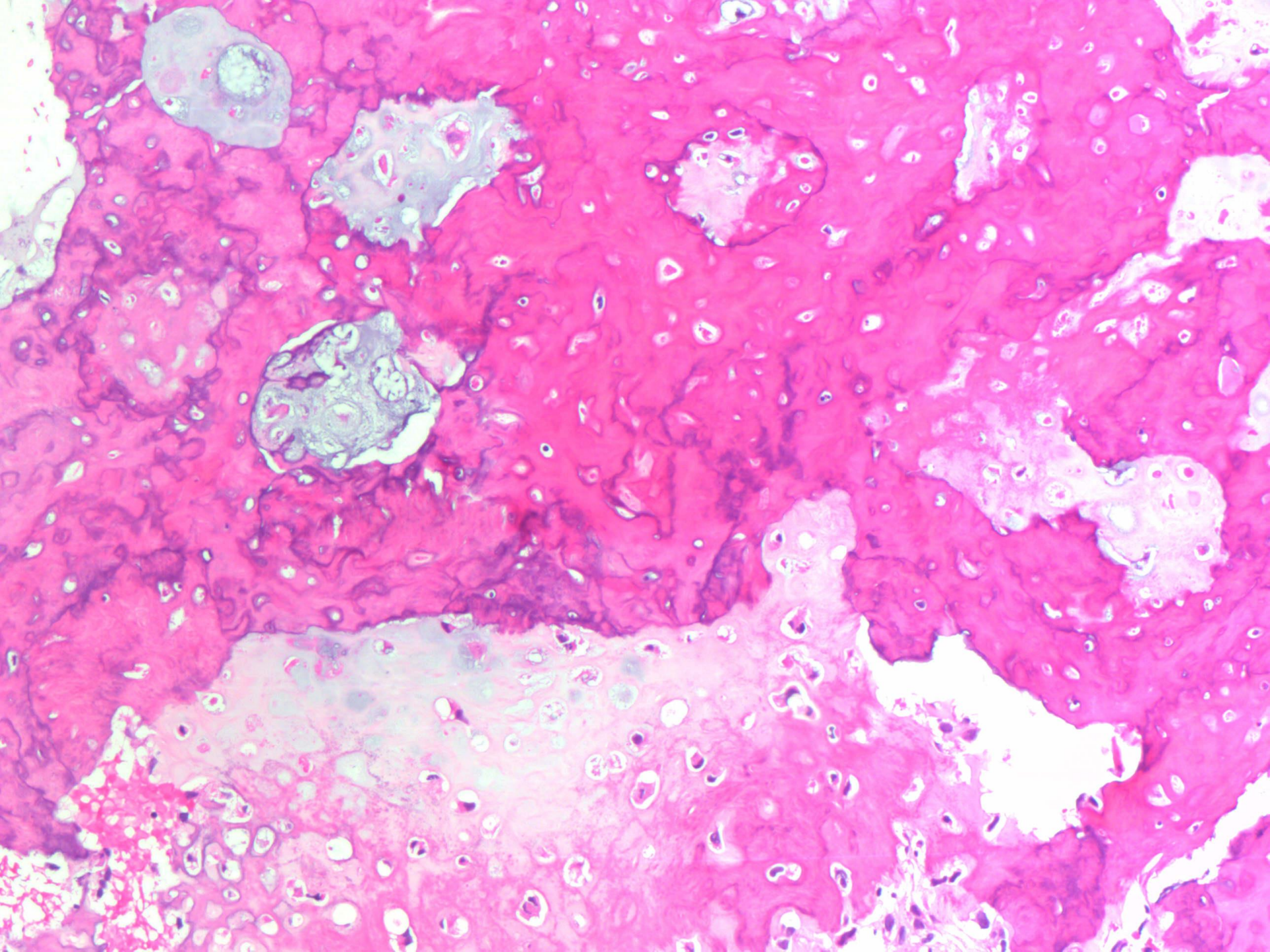
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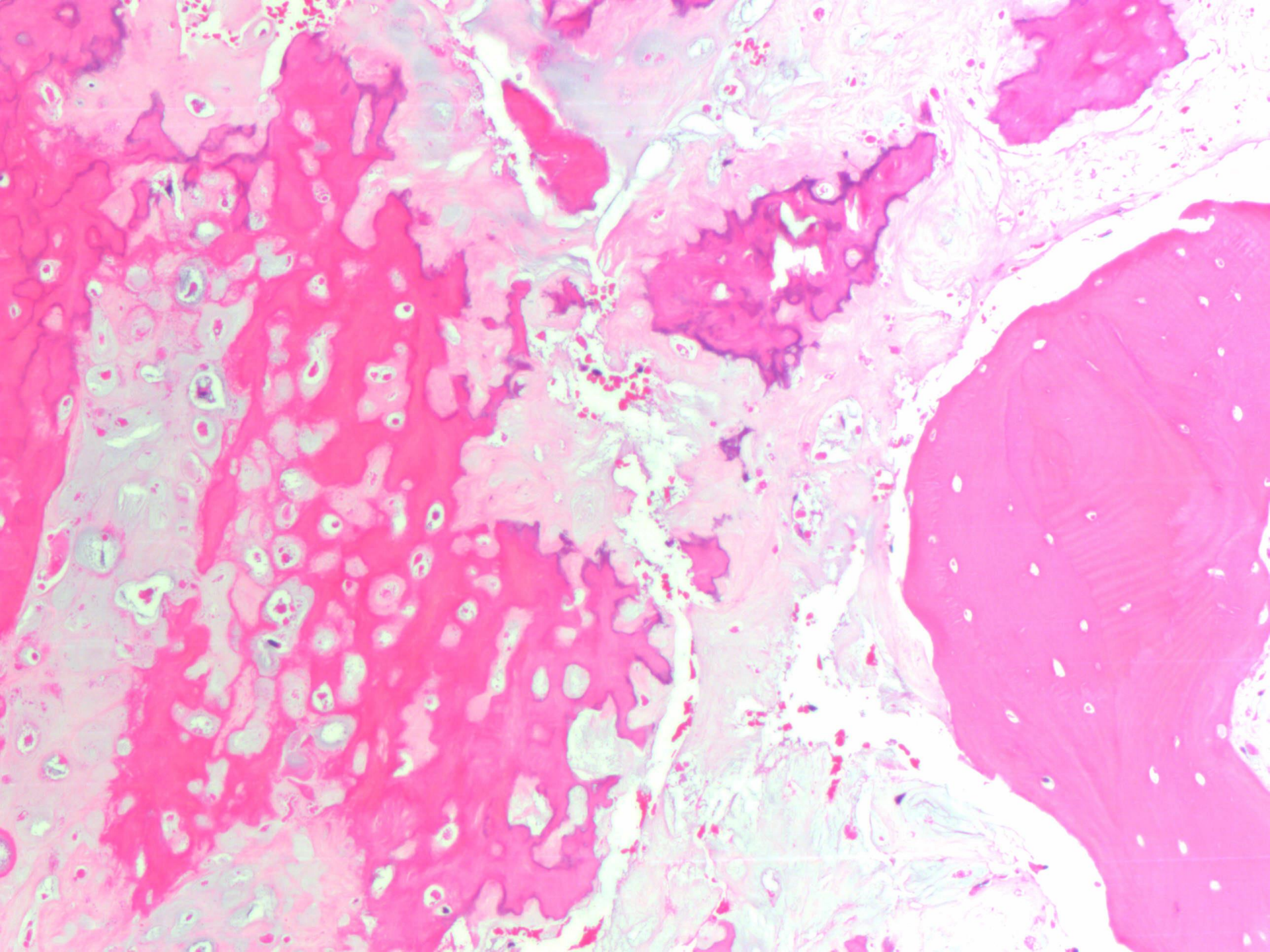


Nov 12, 2008









Distal femur growing prosthesis / f / 51/2 yr

Eingang: 12.11.2008
Ausgang: 17.11.2008 matve
Vorbefunde:

Diagnose

Anteile eines partiell nekrotischen, teils chondroblastisch differenzierten Osteosarkoms, high grade (distaler Femur links).

Klinische Angaben

3 d Schmerzen Knie links. Osteosarkom?

Angaben zur Probe

Distales Femur links

trocar biopsy, Nov 12, 2008

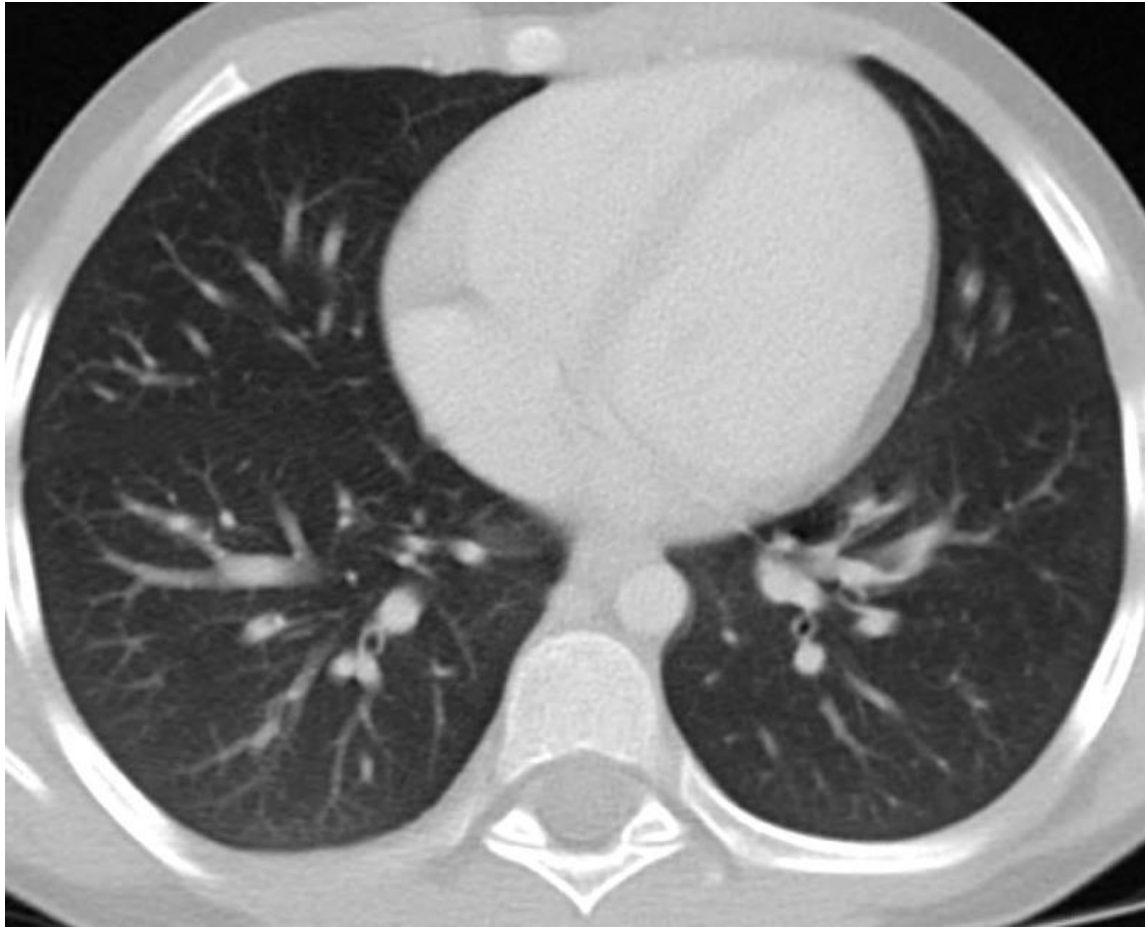
Distal femur growing prosthesis / f / 51/2 yr

Pathology 19.8.2008:

chondroblastic high grade osteosarcoma

**→ proceed with neoadjuvant ChemoTx,
possible rotationplasty**

Distal femur; growing prosthesis / f / 51/2 yr

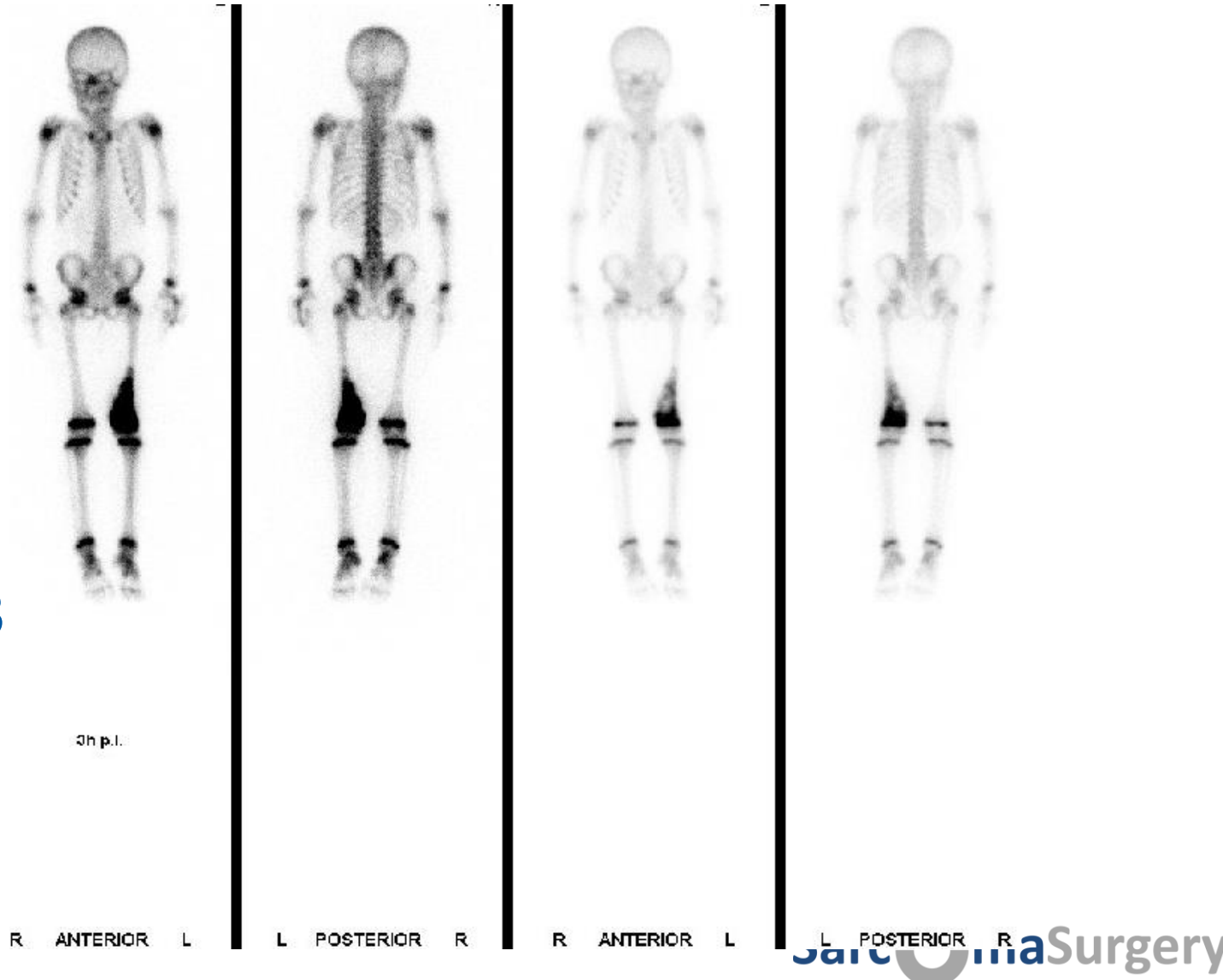


Nov 17, 2008

free of metastases

Distal femur; growing prosthesis / f / 51/2 yr

Nov 18, 2008



Distal femur; growing prosthesis / f / 51/2 yr

Surgical Options:

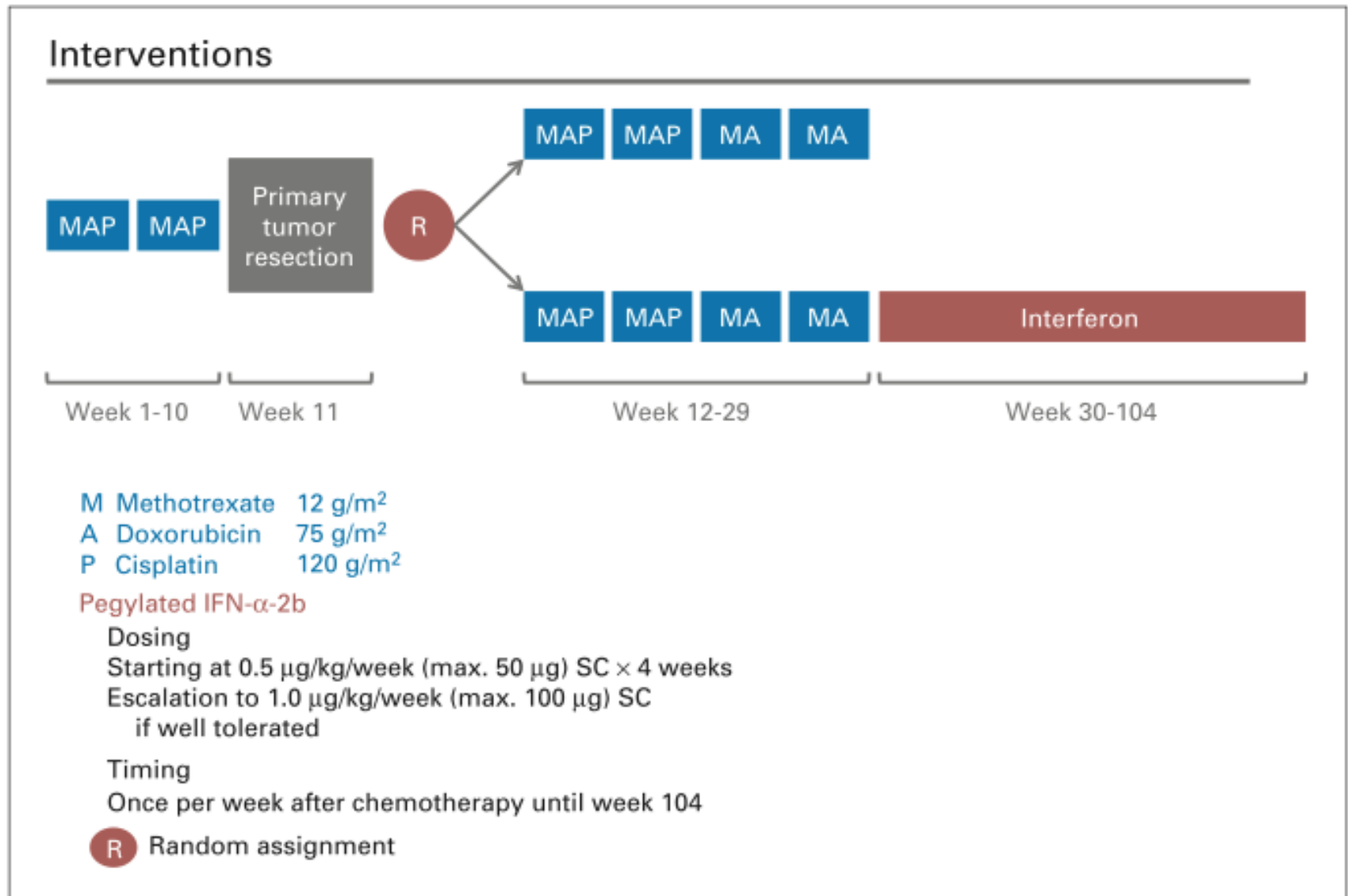
-amputation

-rotationplasty

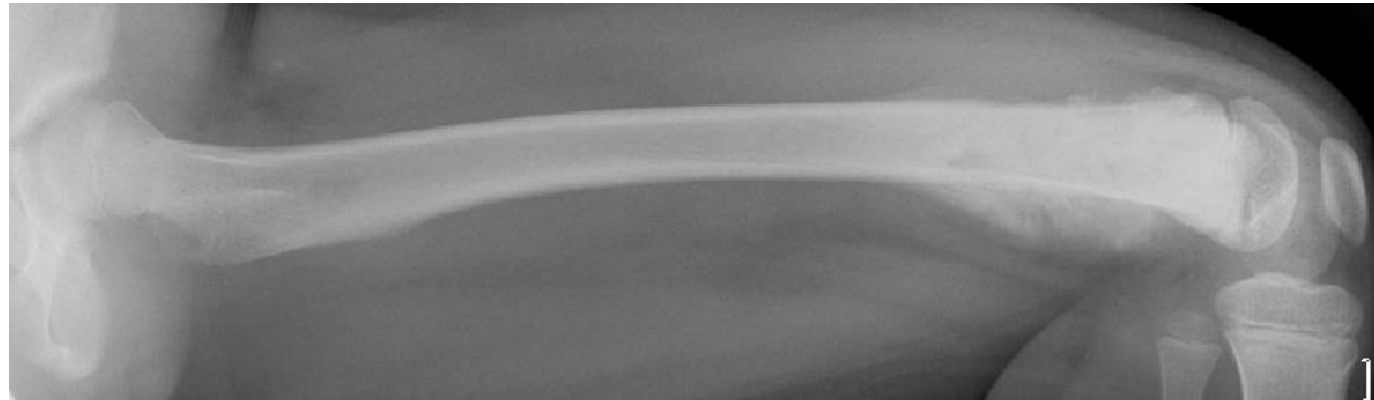
-growing prosthesis

**→ “Growing Prosthesis” planned despite disadvantages
(socio-cultural parents-wish)**

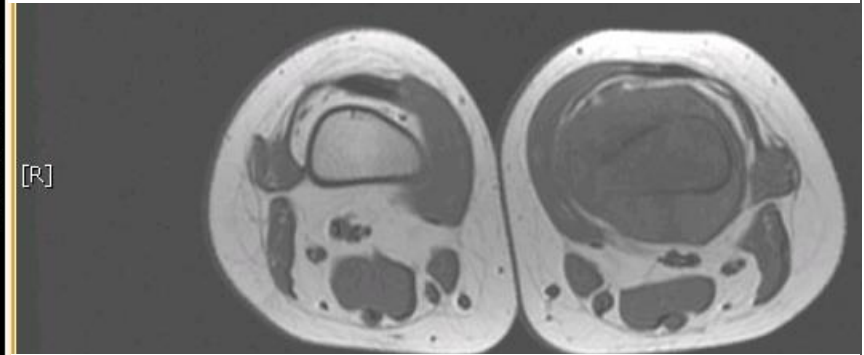
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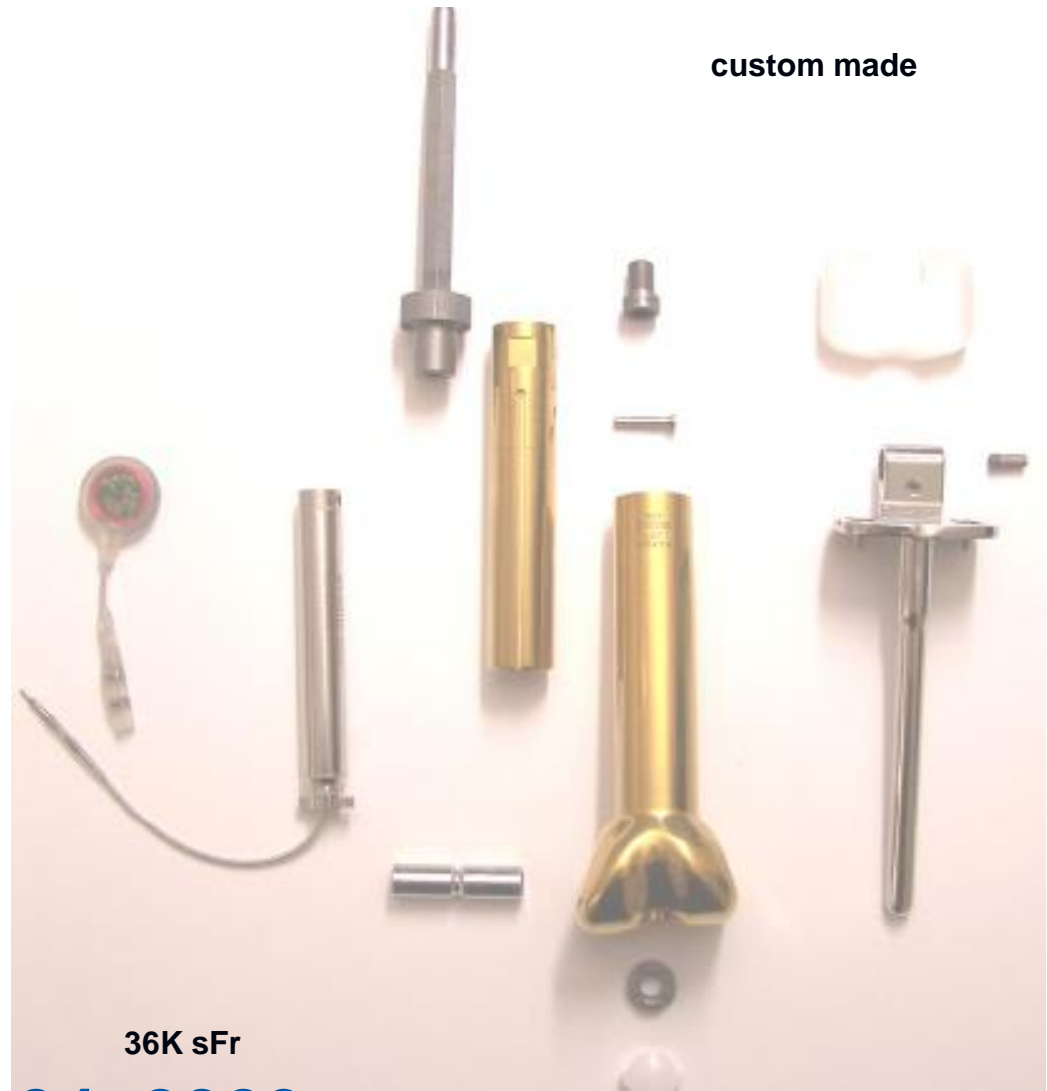


Distal femur; growing prosthesis / f / 51/2 yr



Feb 24, 2008

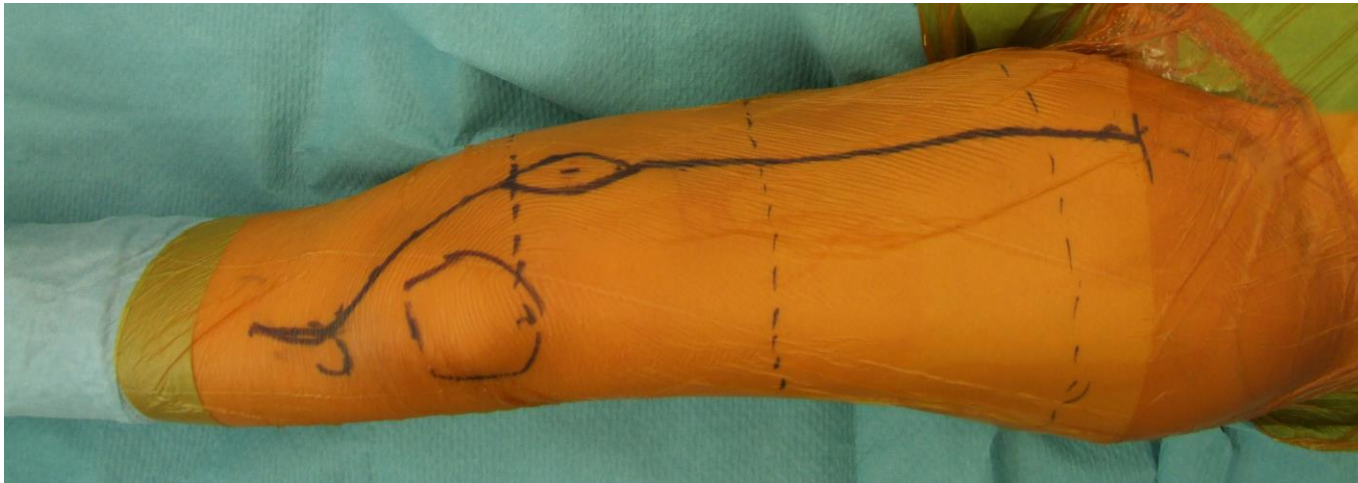
Distal femur; growing prosthesis / f / 51/2 yr



Preop planning, Feb 24, 2009

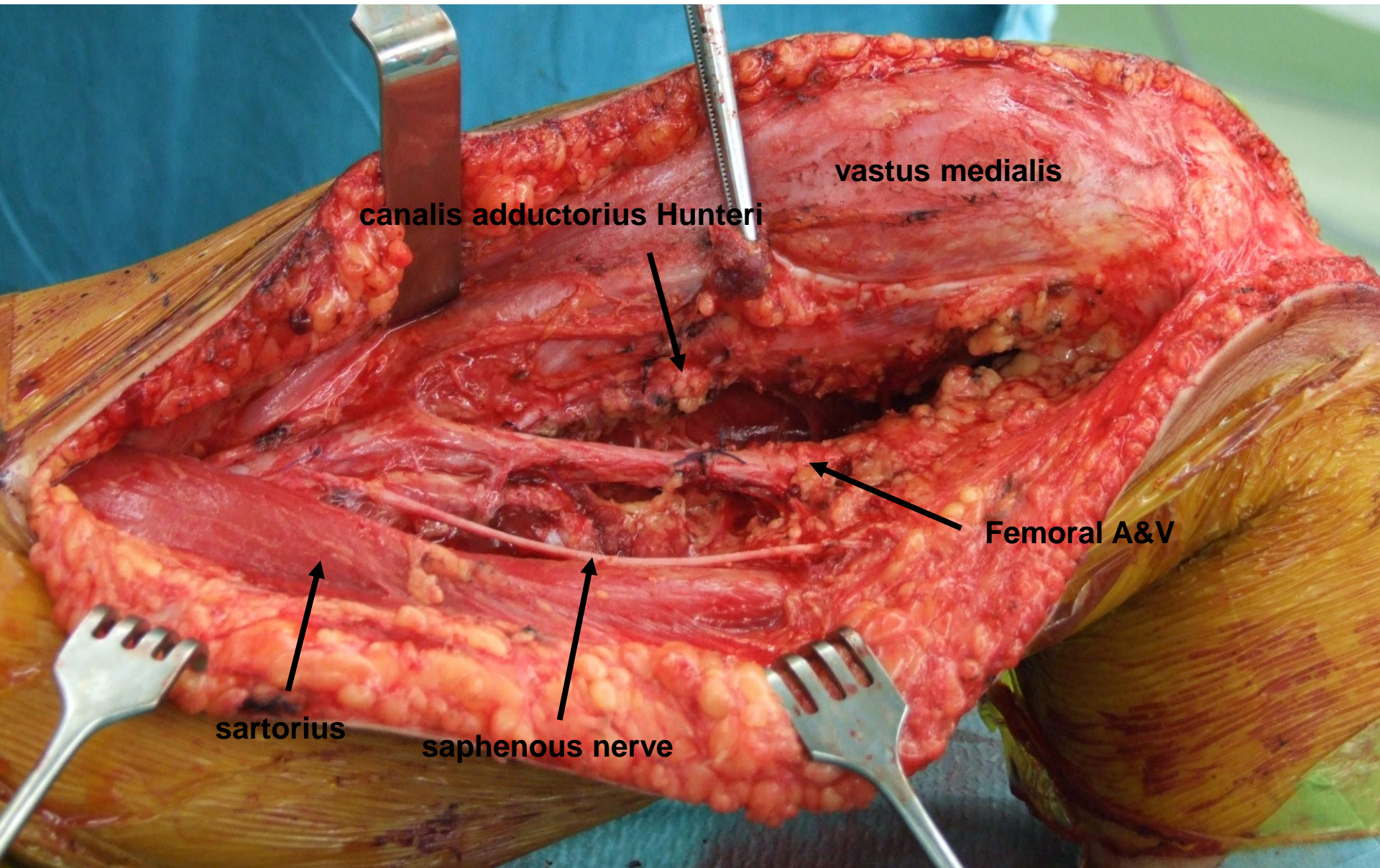
Distal femur; growing prosthesis / f / 51/2 yr

X

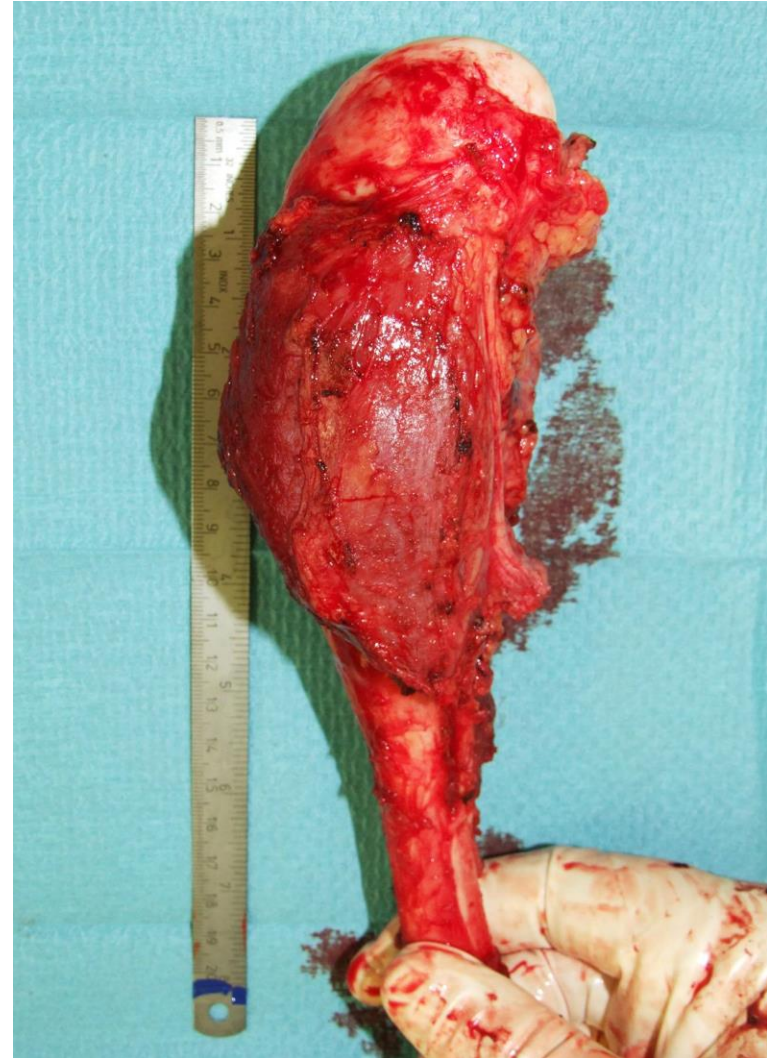
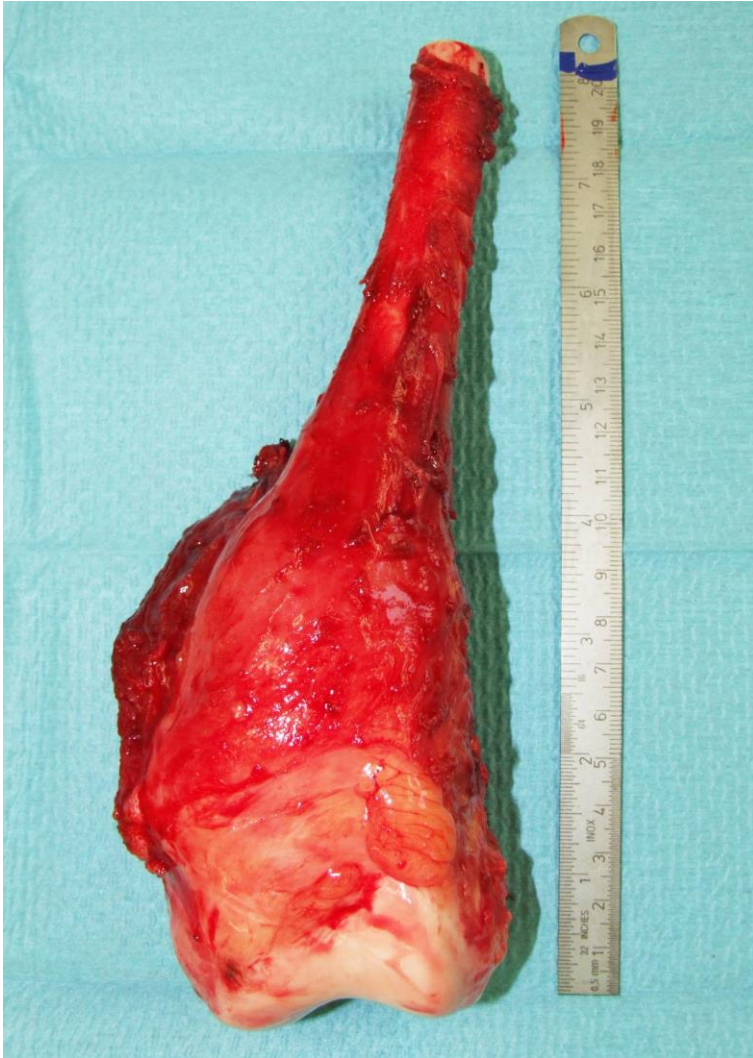


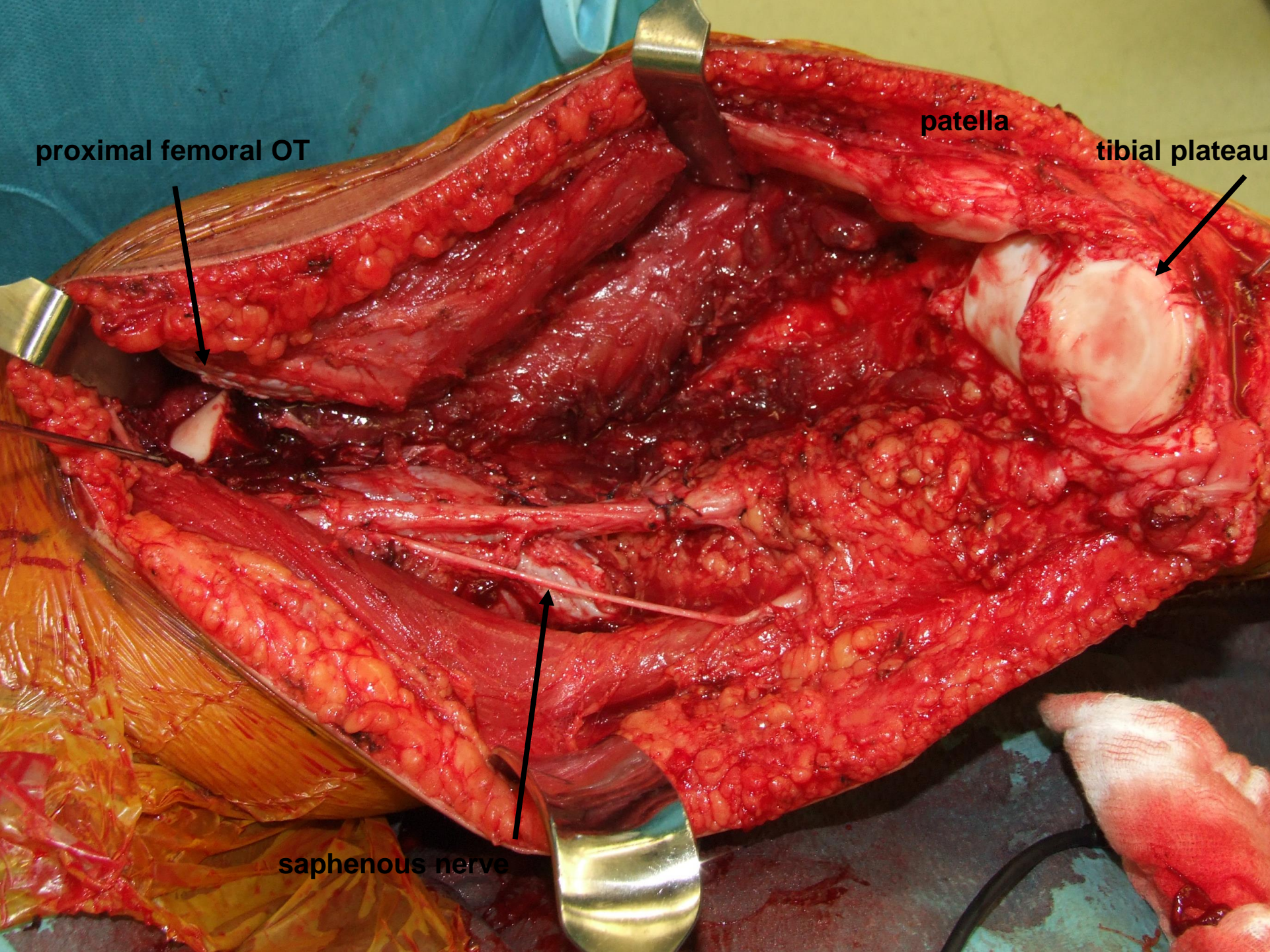
Feb 24, 2009

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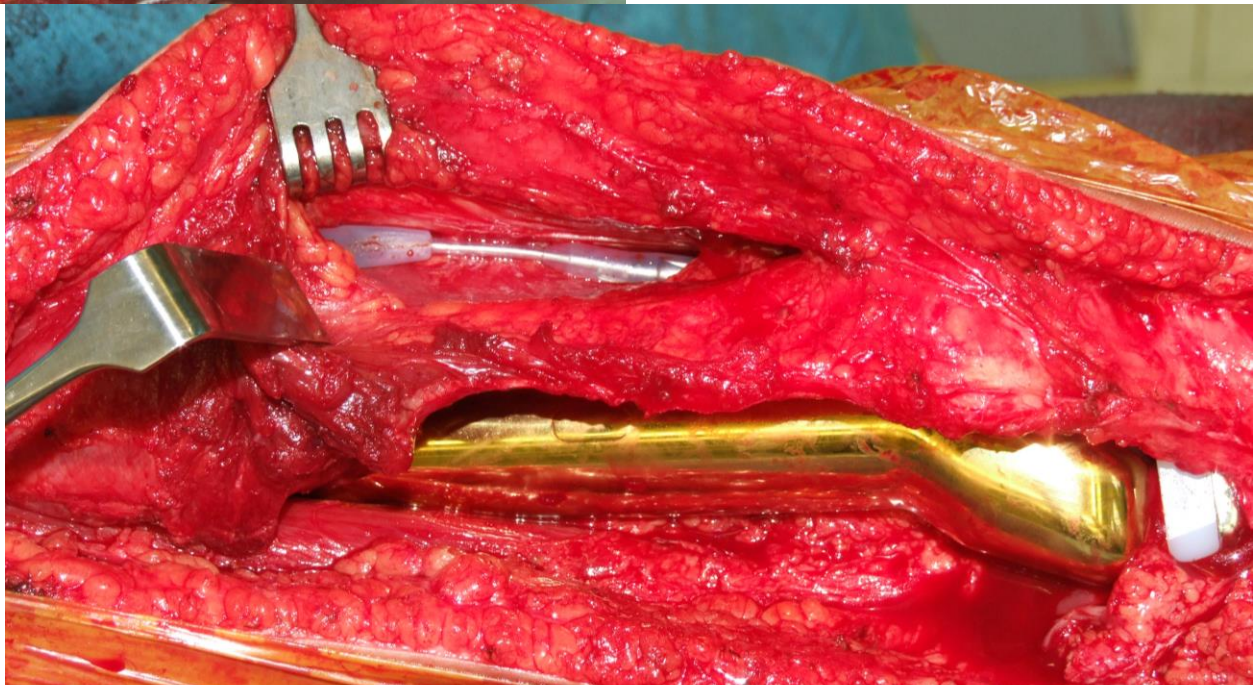
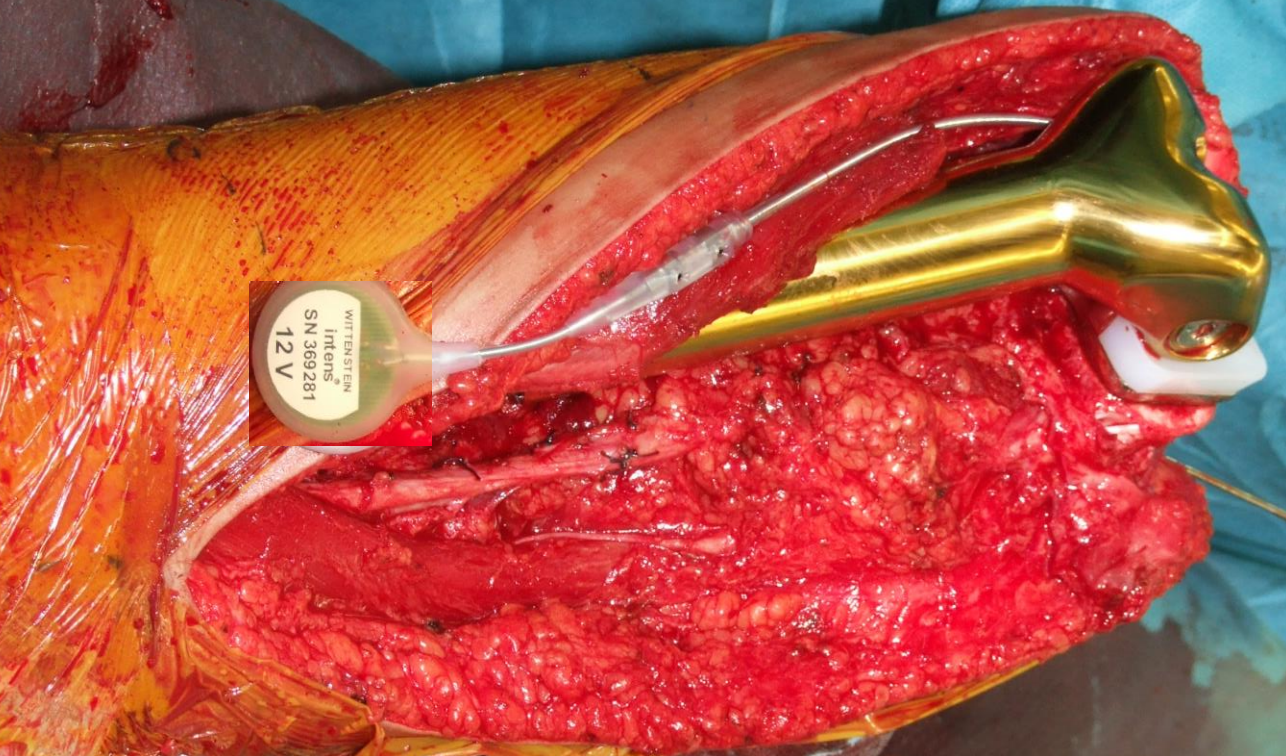


proximal femoral OT

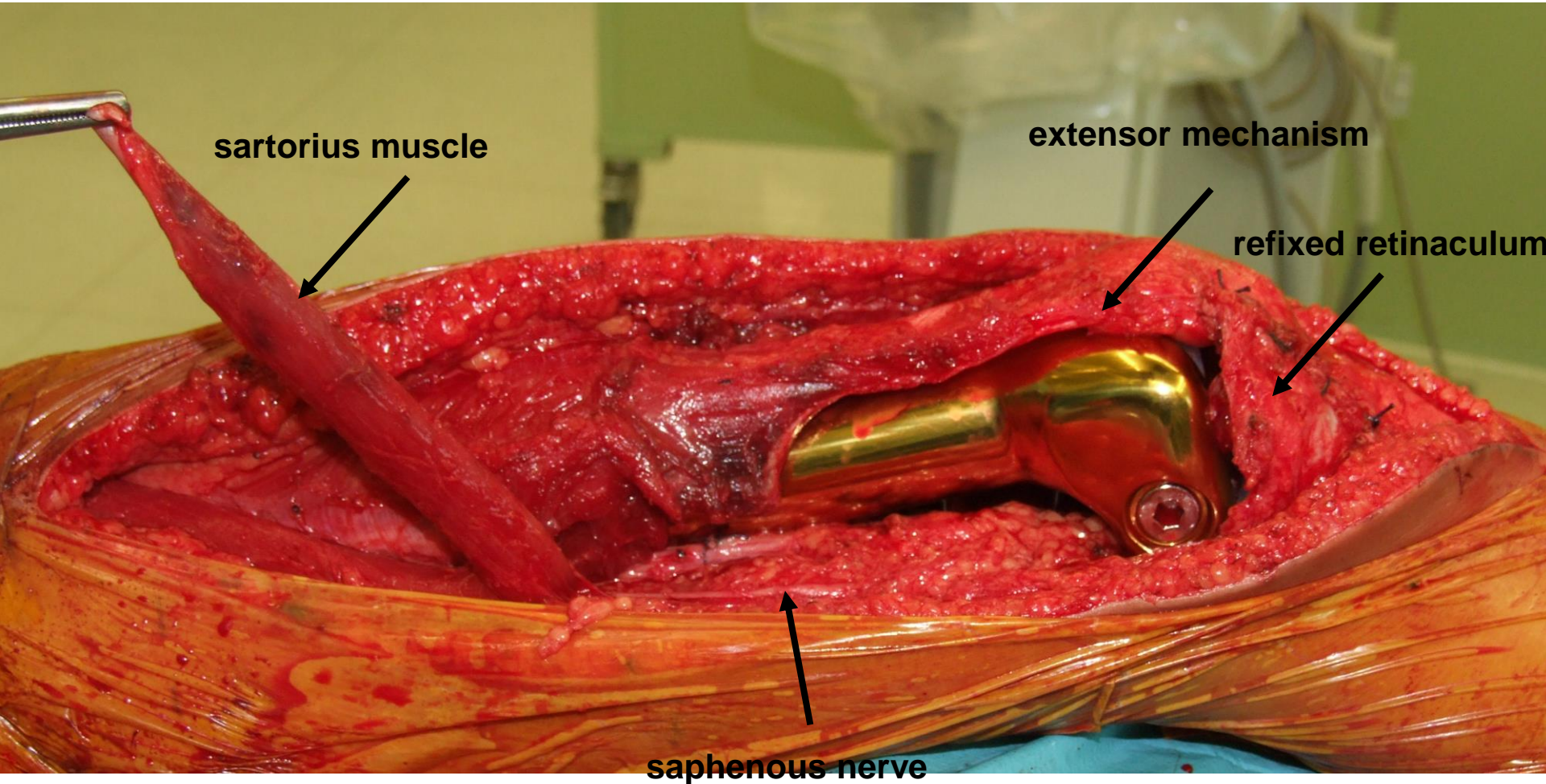
patella

tibial plateau

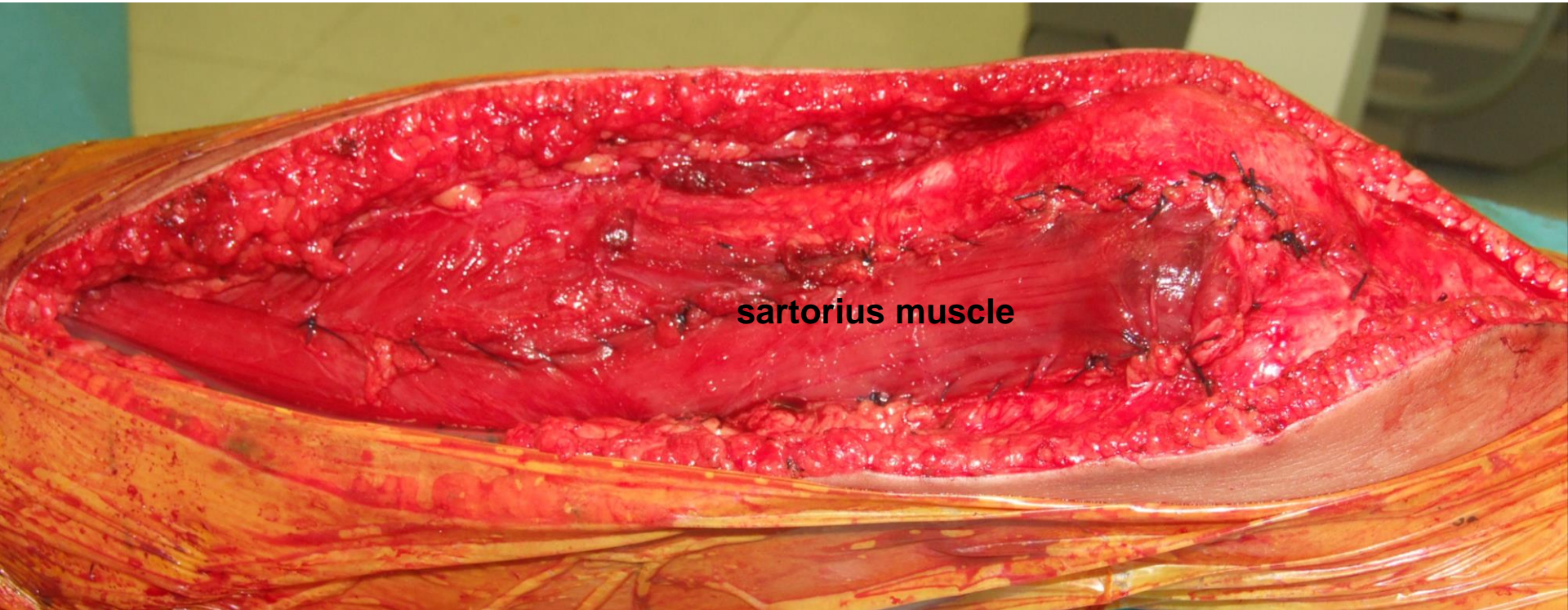
saphenous nerve



Distal femur; growing prosthesis / f / 51/2 yr



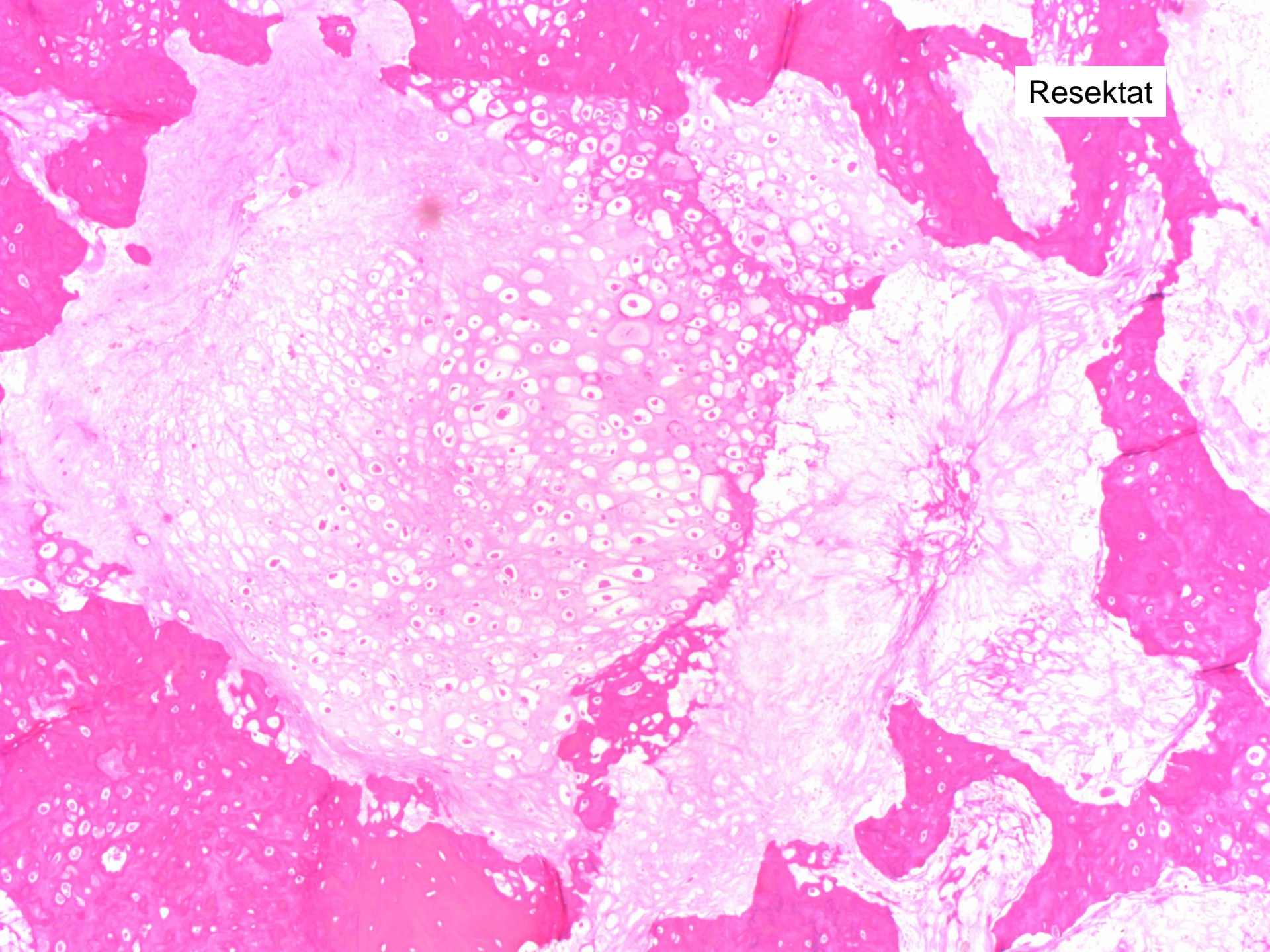
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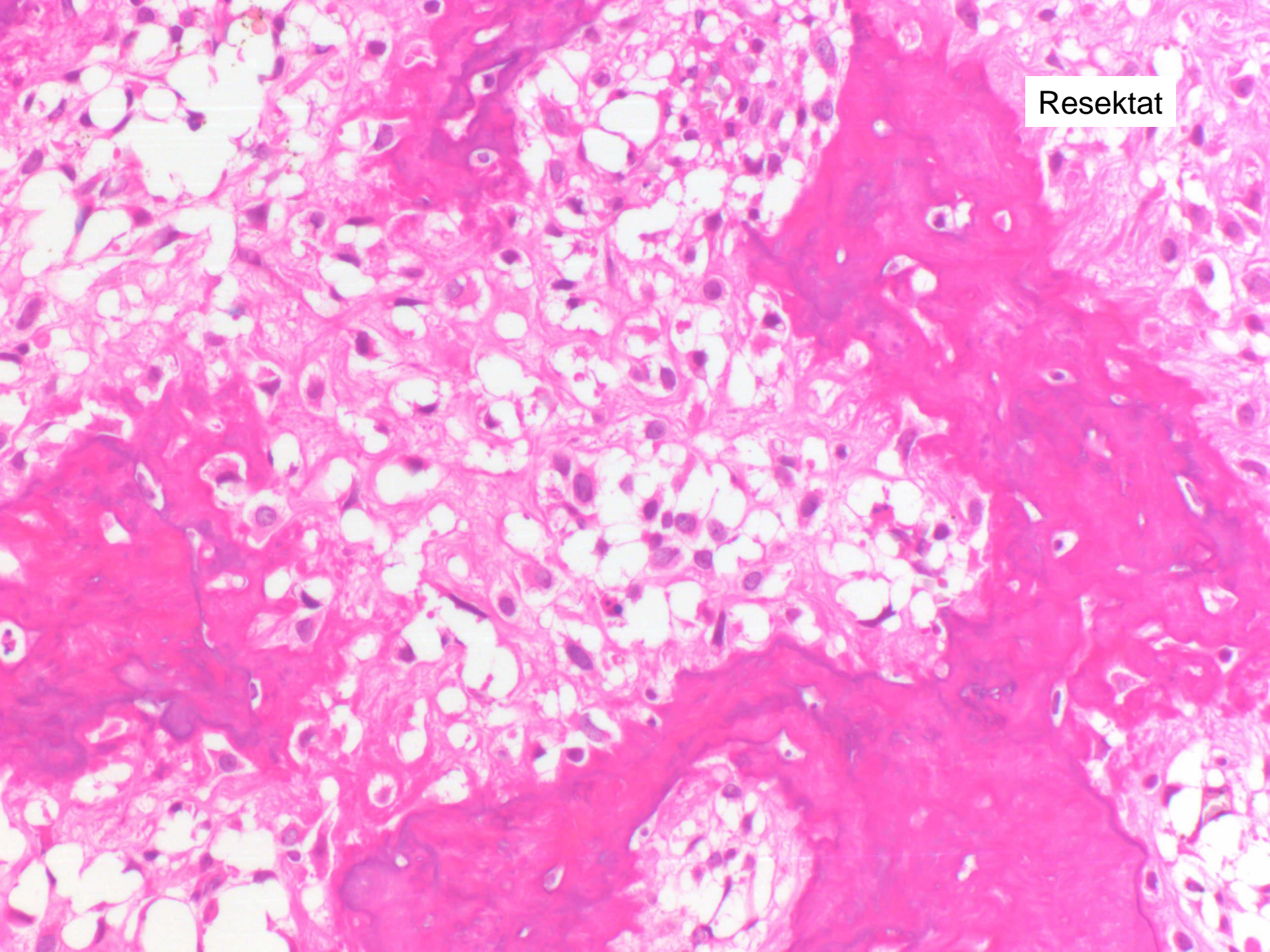
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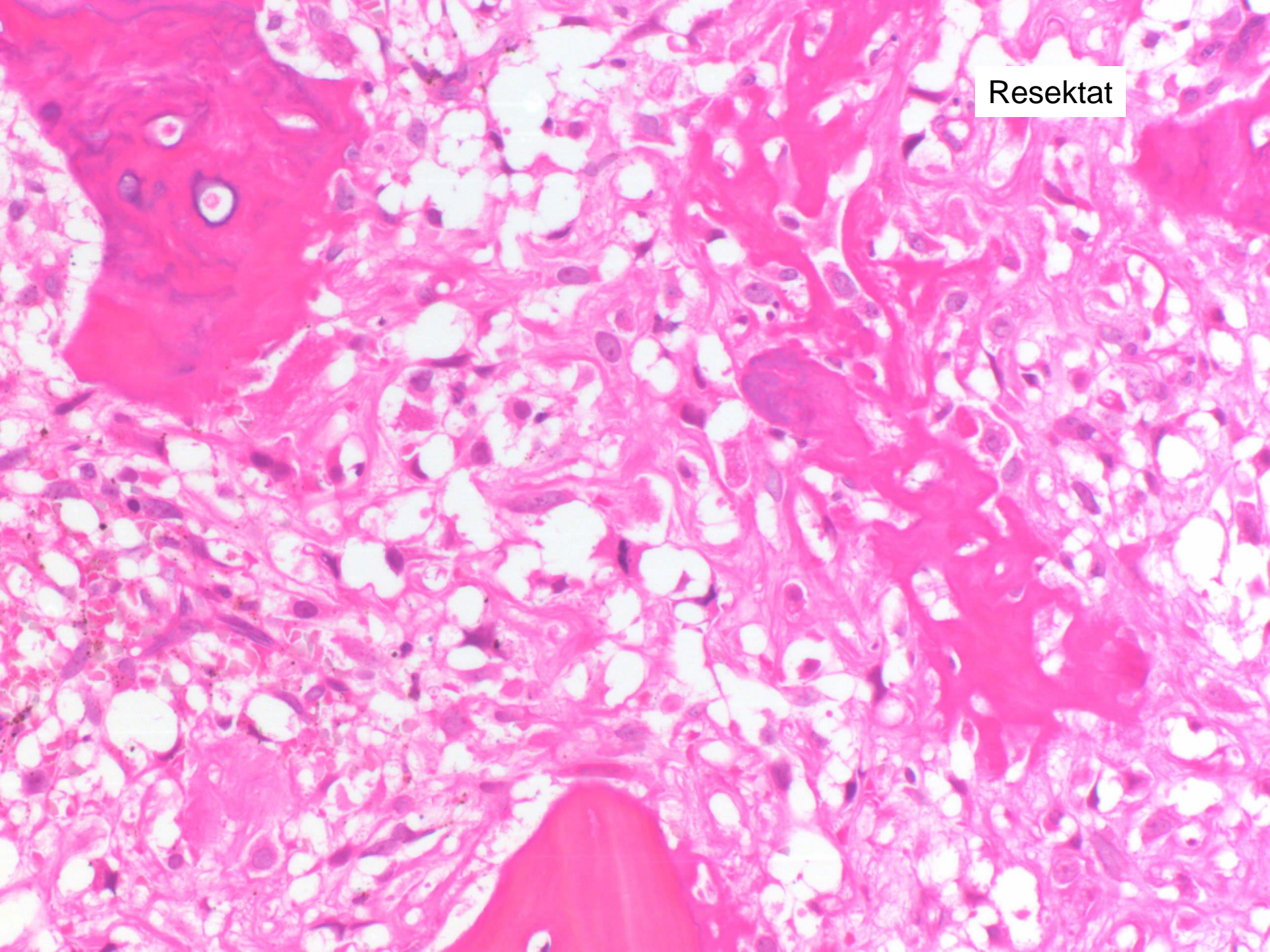
Resektat

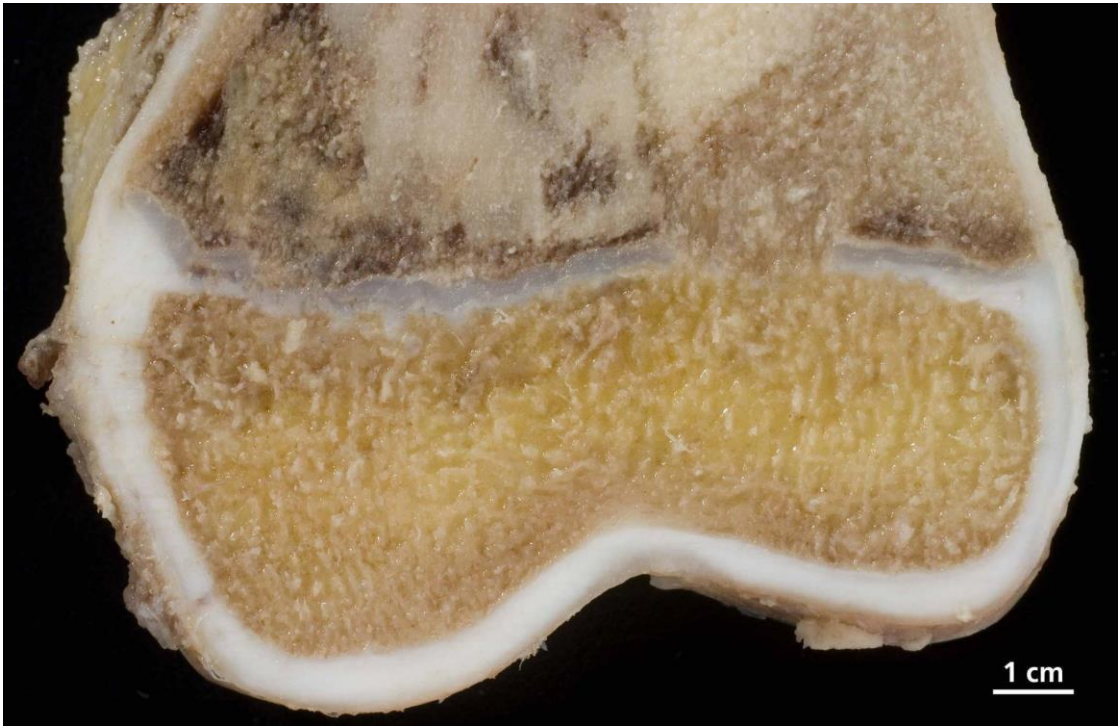


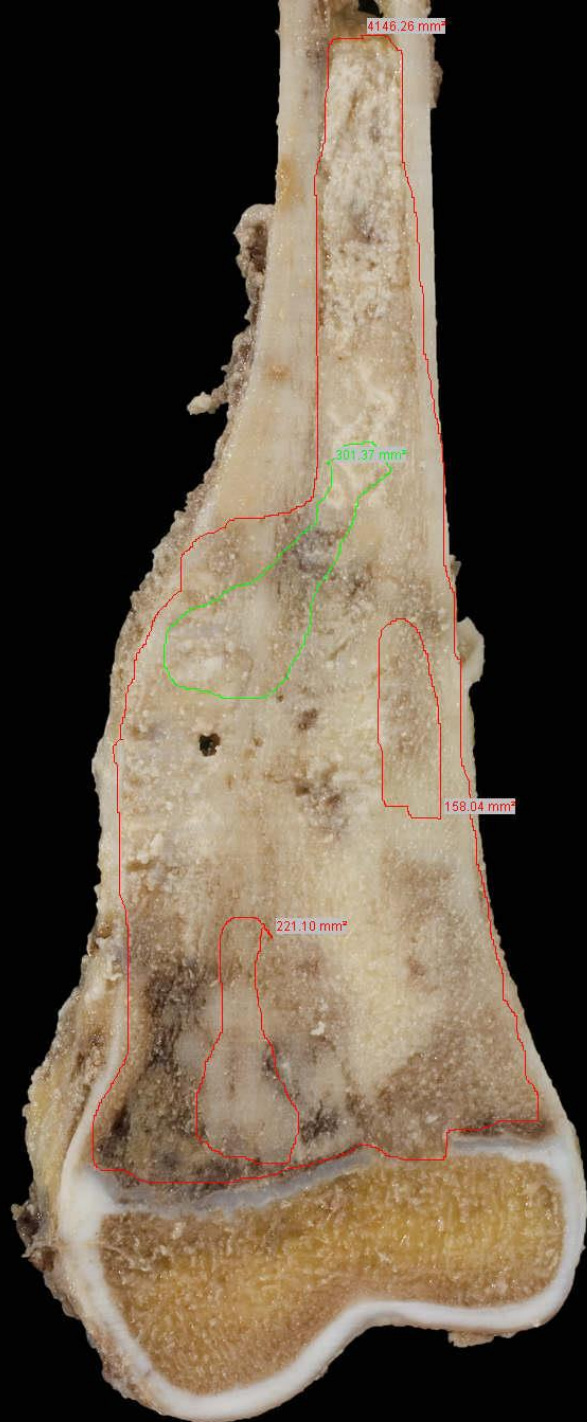
Resektat



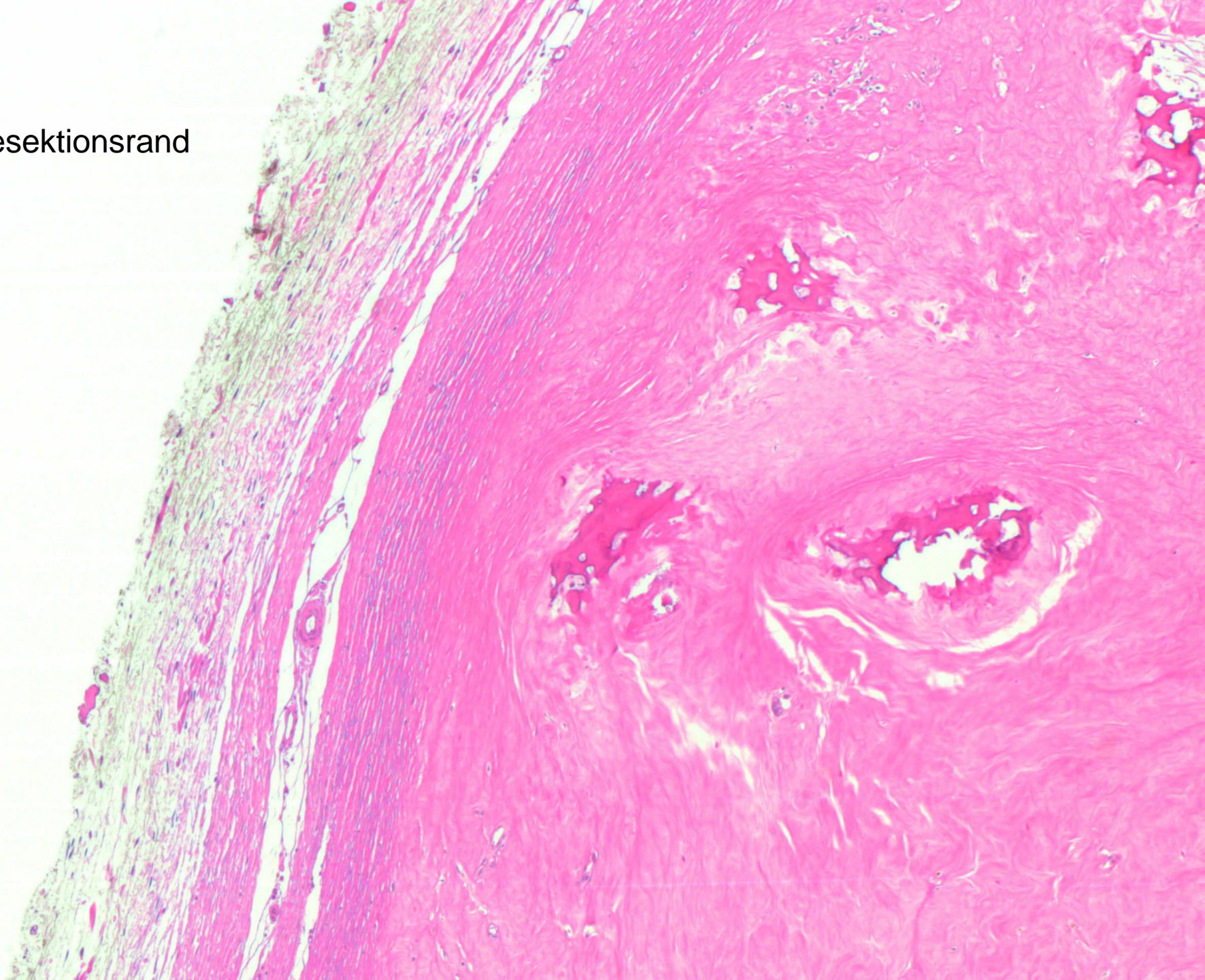
Resektat







Resektionsrand



Distal femur; growing prosthesis / f / 51/2 yr



2 days postop, Feb 26, 2009

Distal femur; growing prosthesis / f / 51/2 yr

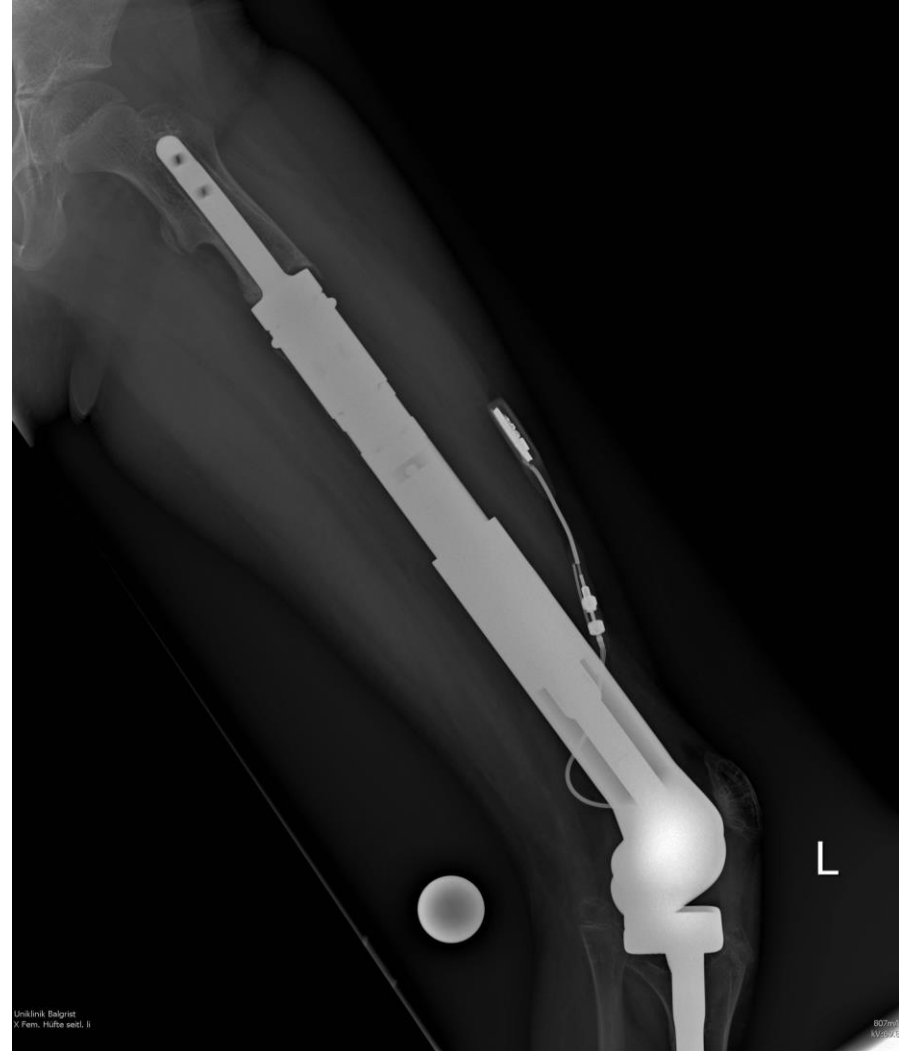


1st Prosthesis extension, June 19, 2009  Sarcoma Surgery

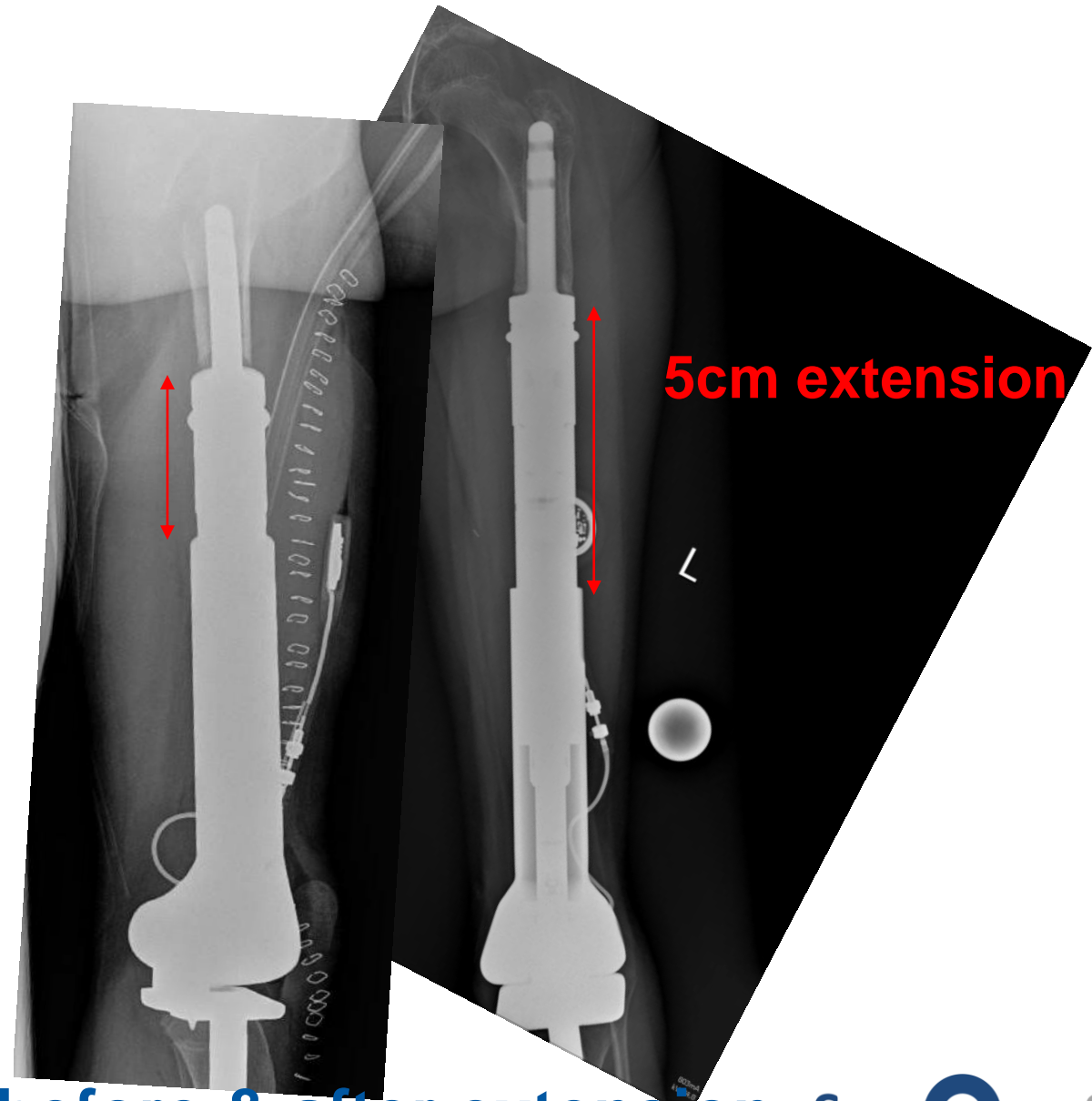
Distal femur; growing prosthesis / f / 51/2 yr



Dec 21, 2011



Distal femur; growing prosthesis / f / 51/2 yr



Distal femur; growing prosthesis / f / 51/2 yr



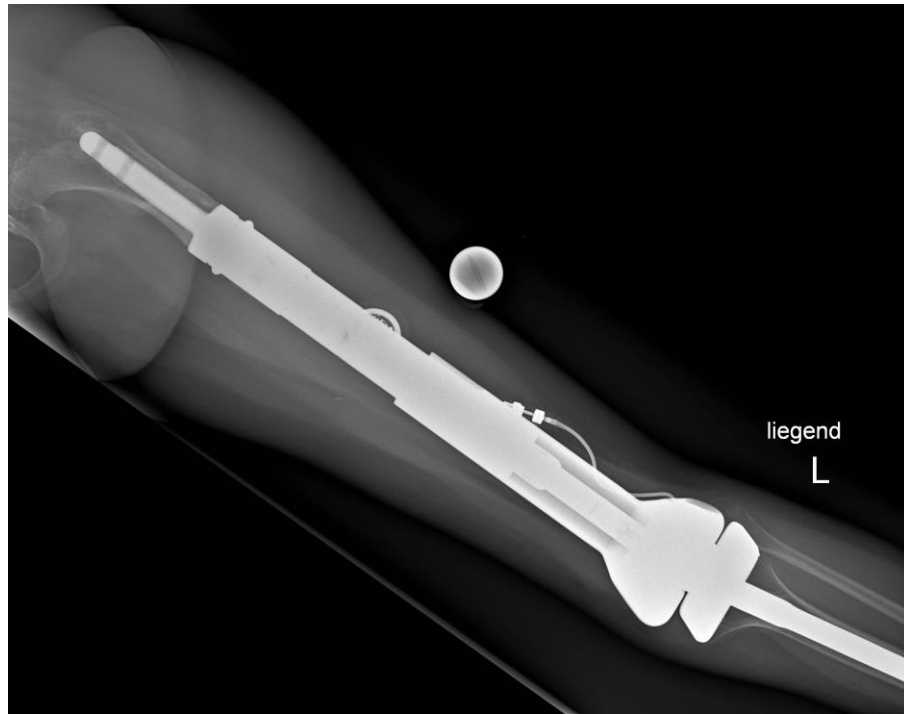
35 months postop, Jan 18, 2012

Distal femur; growing prosthesis / f / 51/2 yr

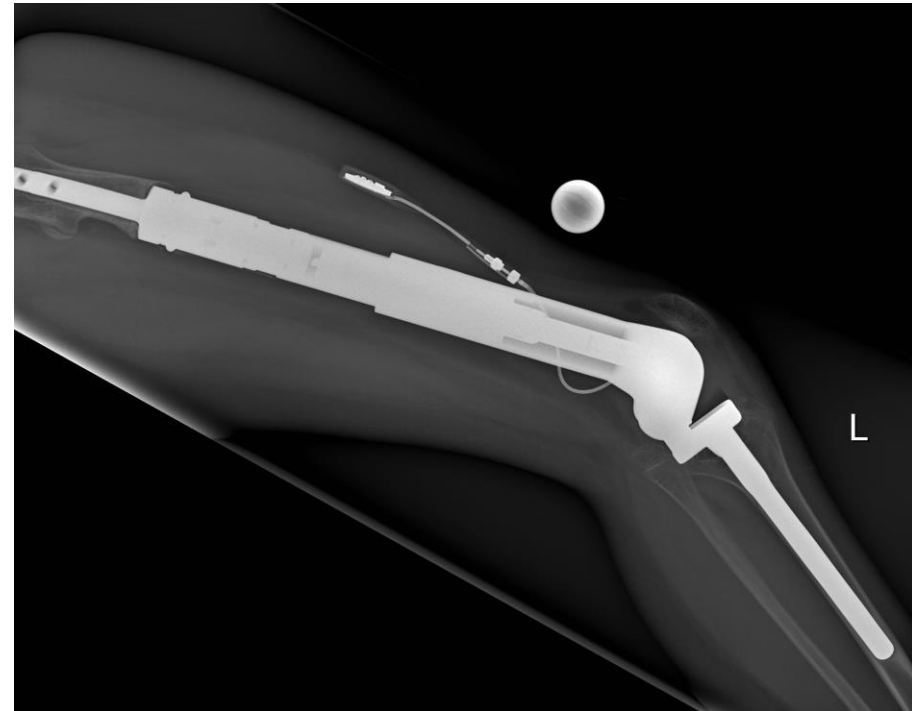


35 months postop, Jan 18, 2012

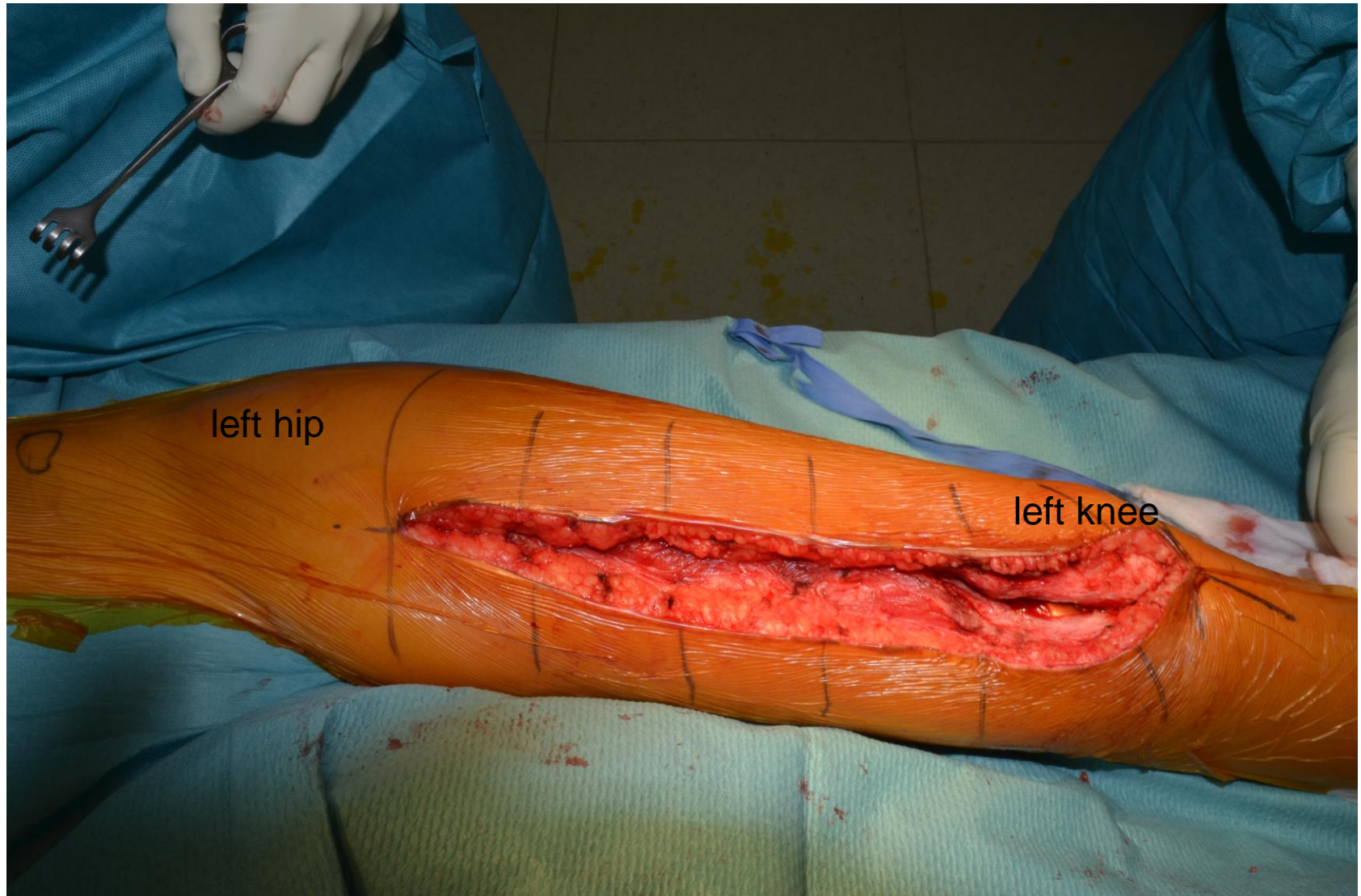
Distal femur; growing prosthesis / f / 51/2 yr



Rx: April 18, 2012



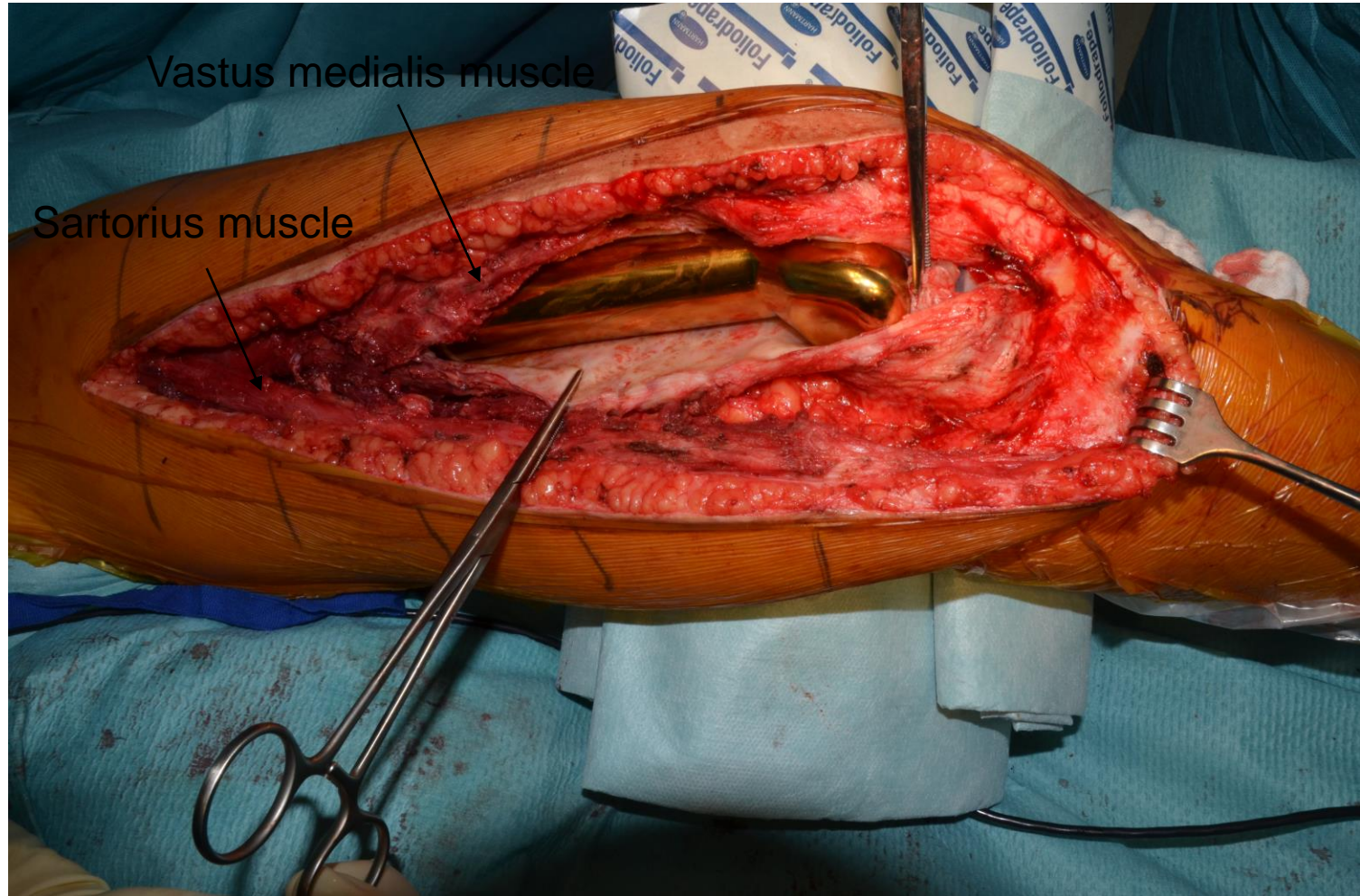
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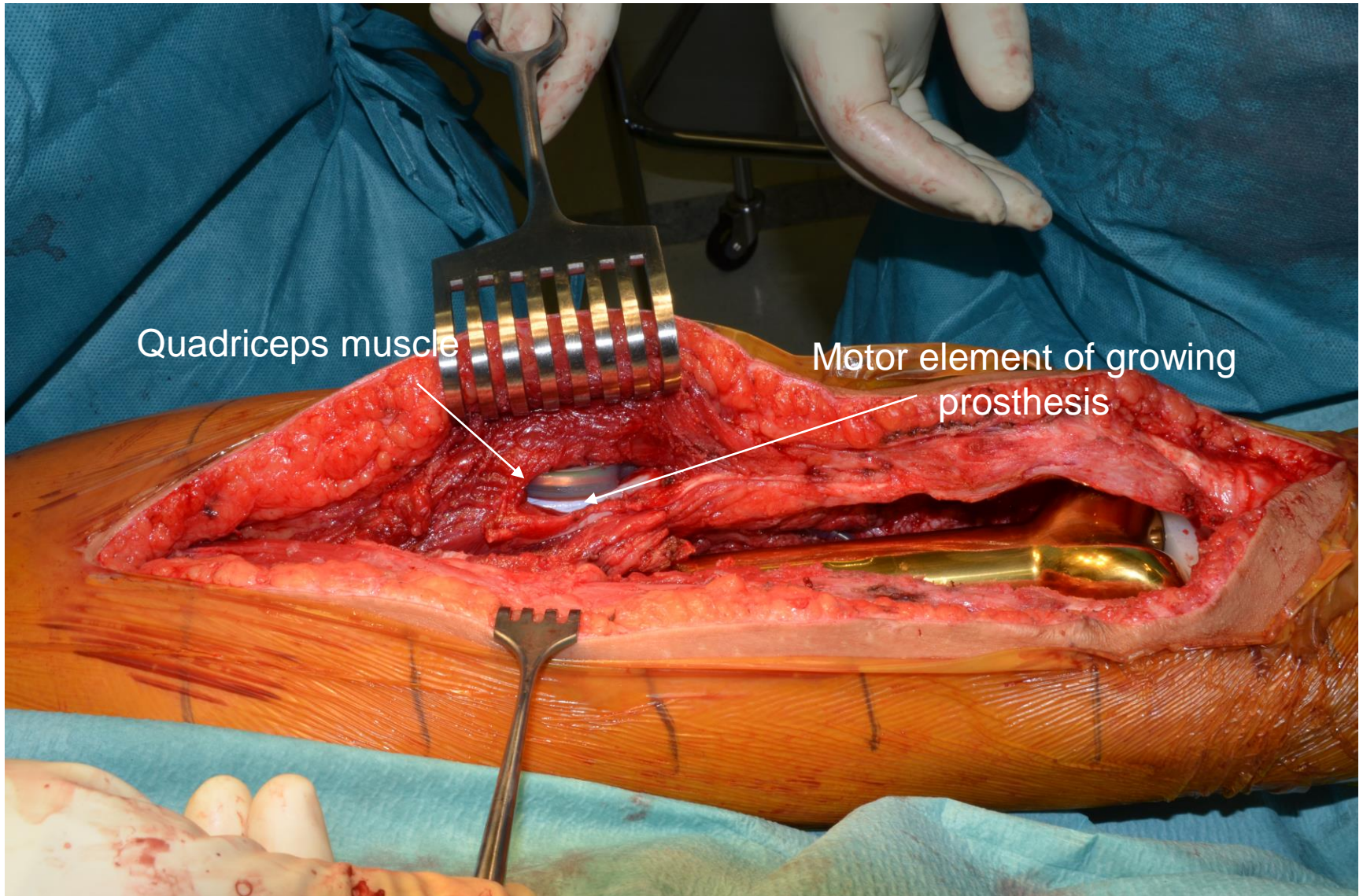
explantation of the prosthesis-

growth Femoral: October 02, 2012 SarcOmaSurgery

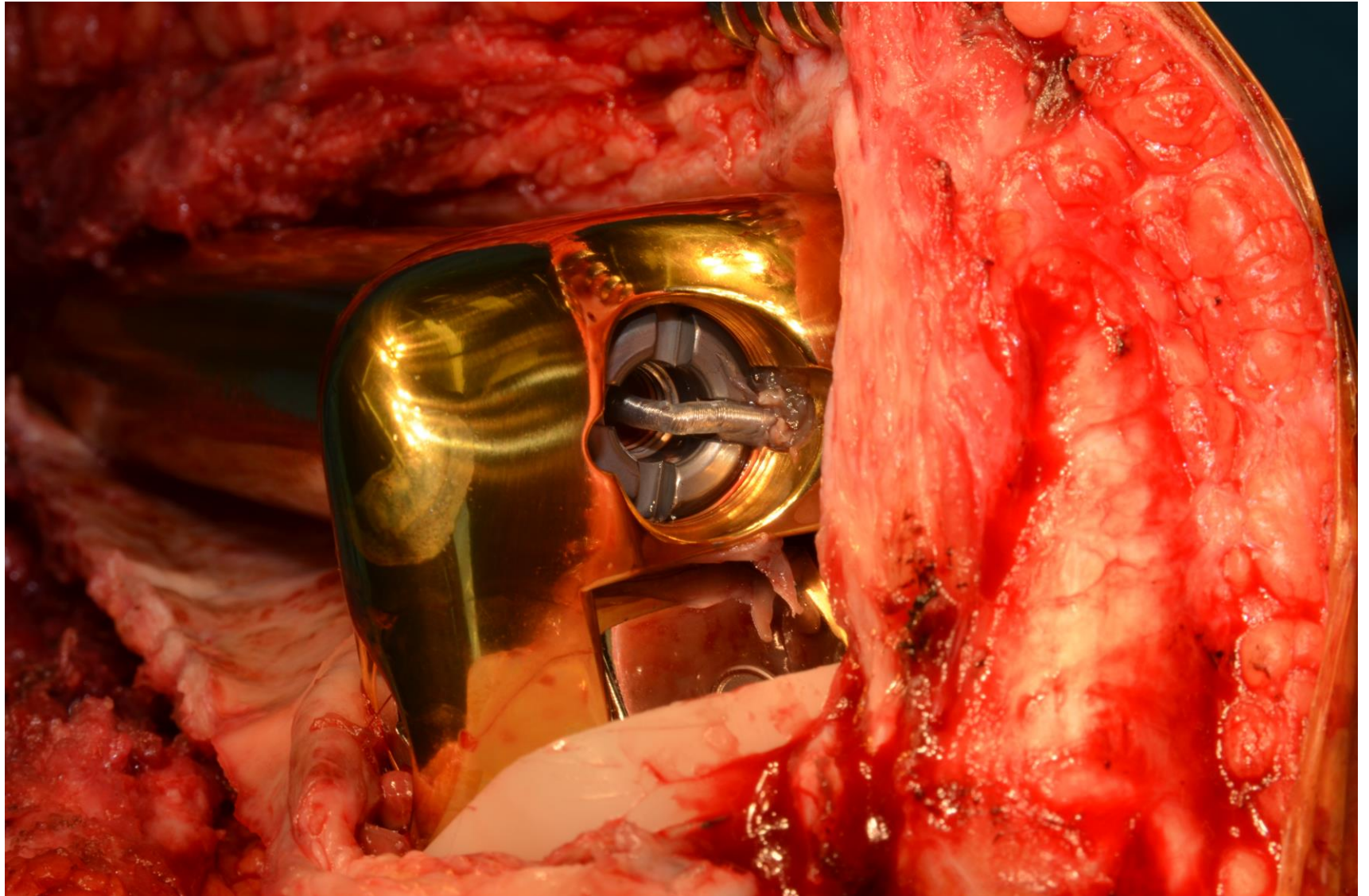
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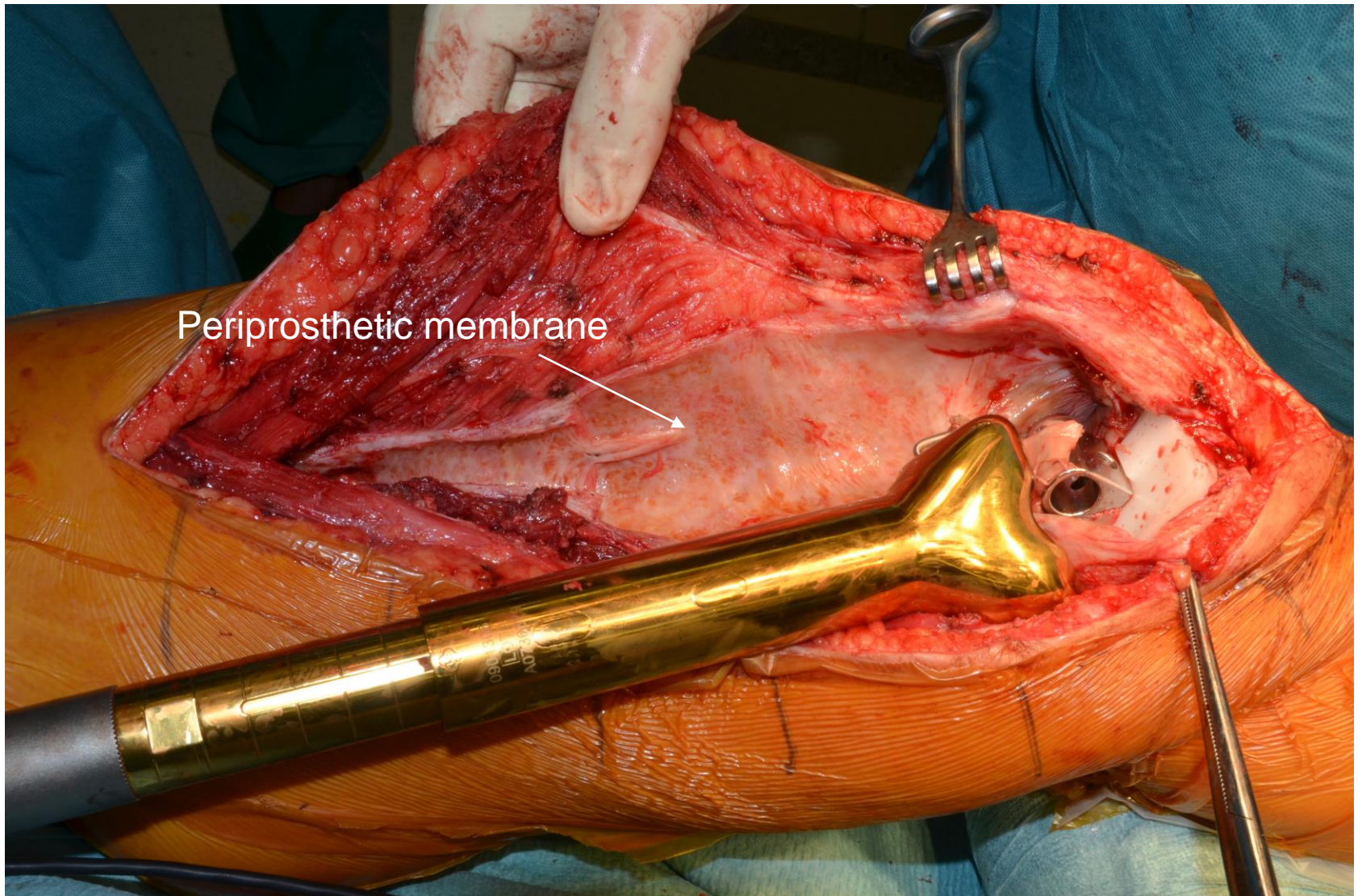
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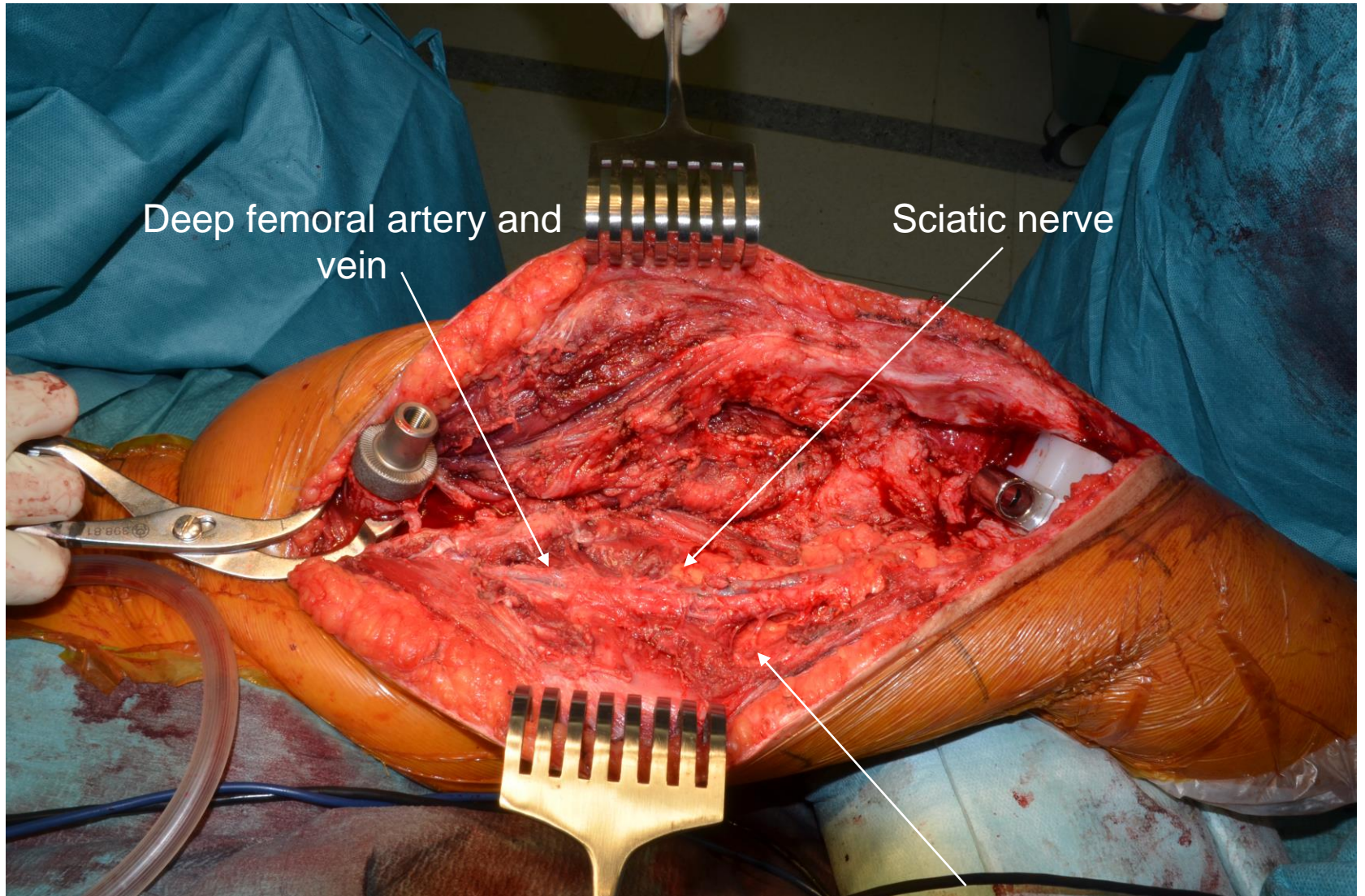
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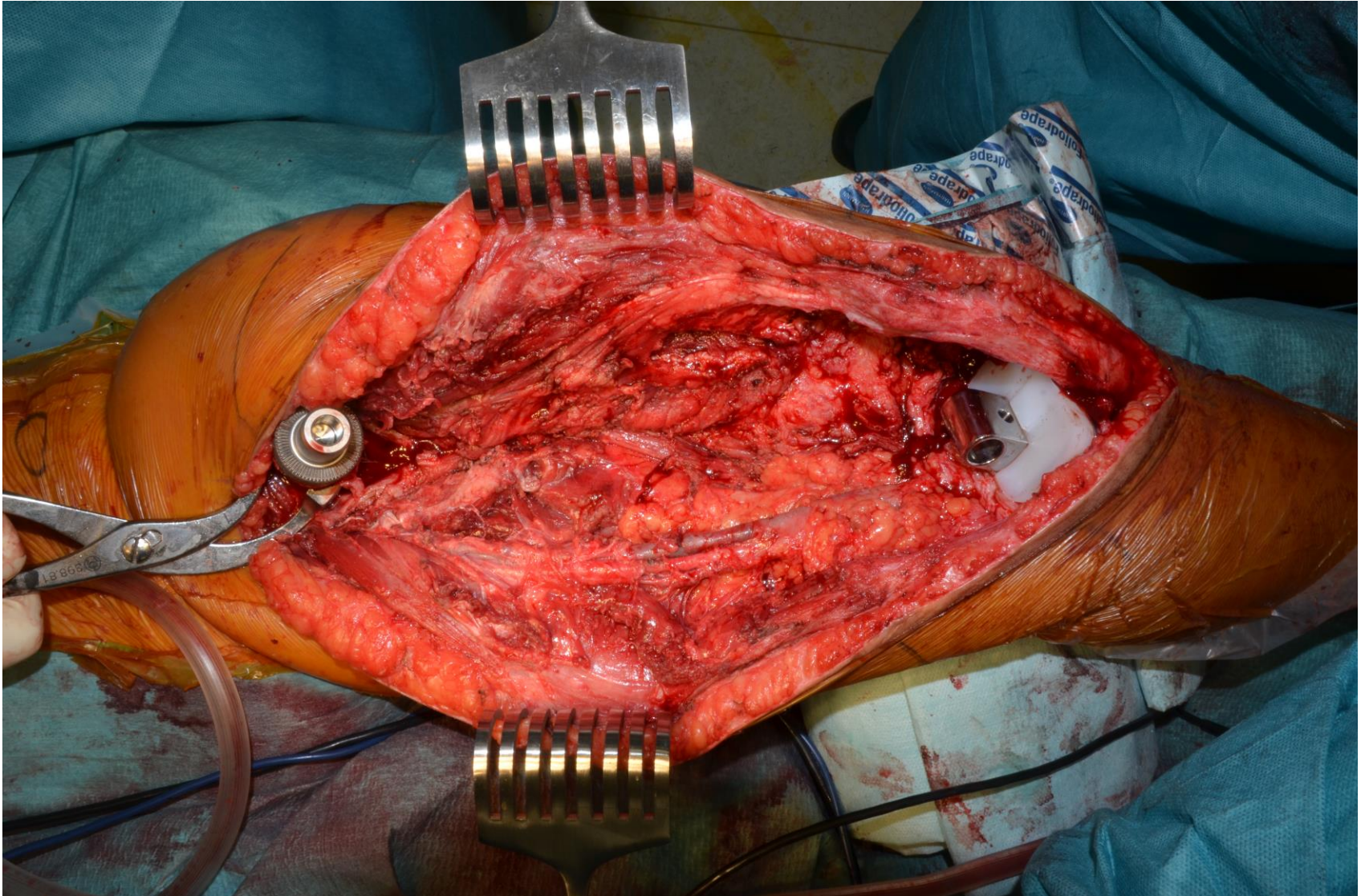


Deep femoral artery and vein

Sciatic nerve

Femoral artery and vein with Saphenous nerve

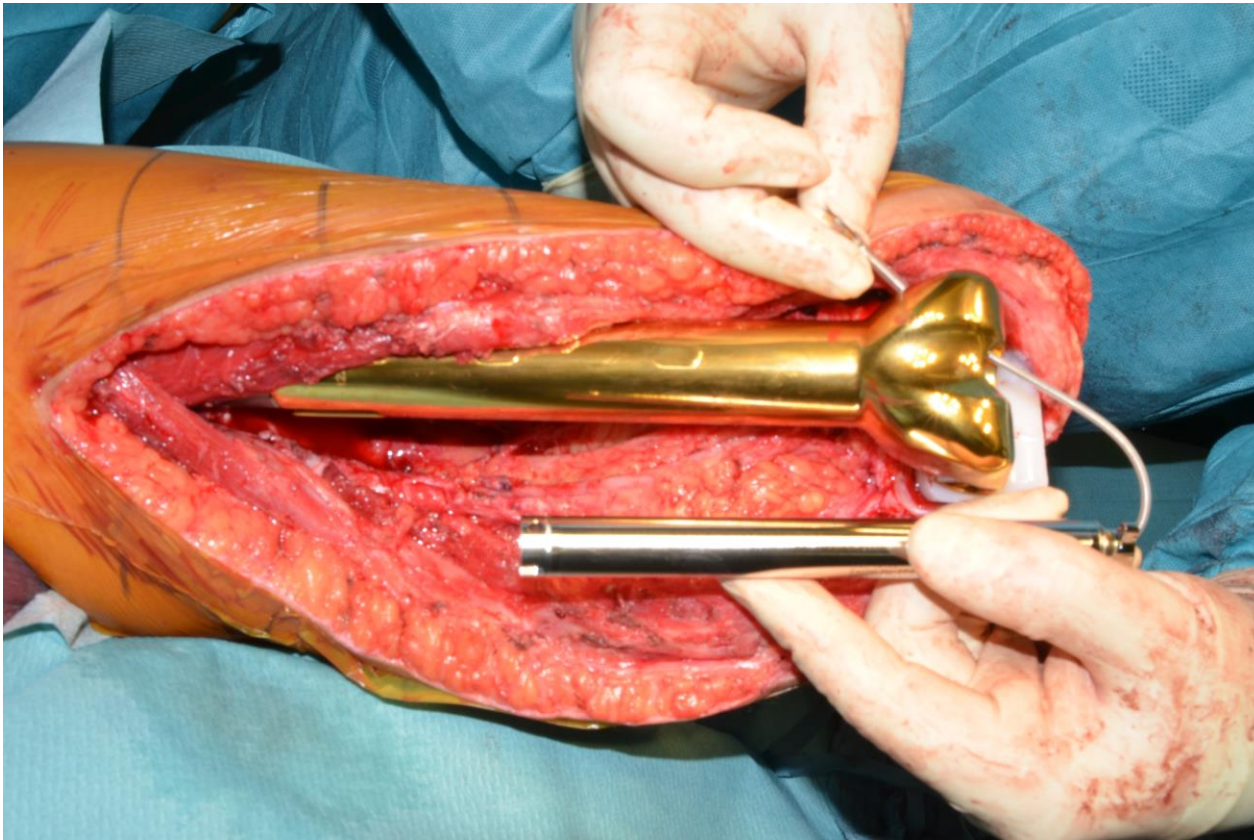
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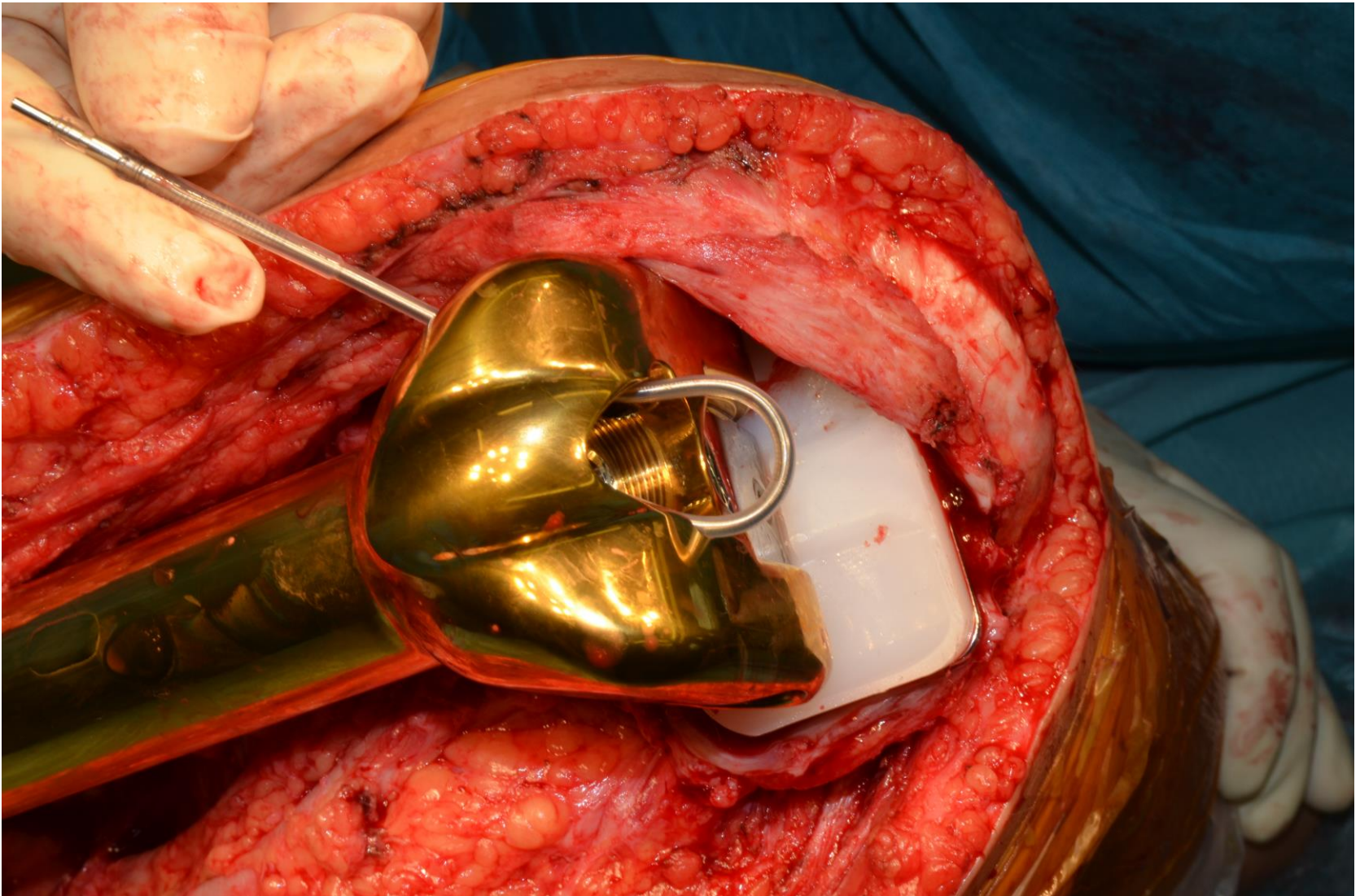
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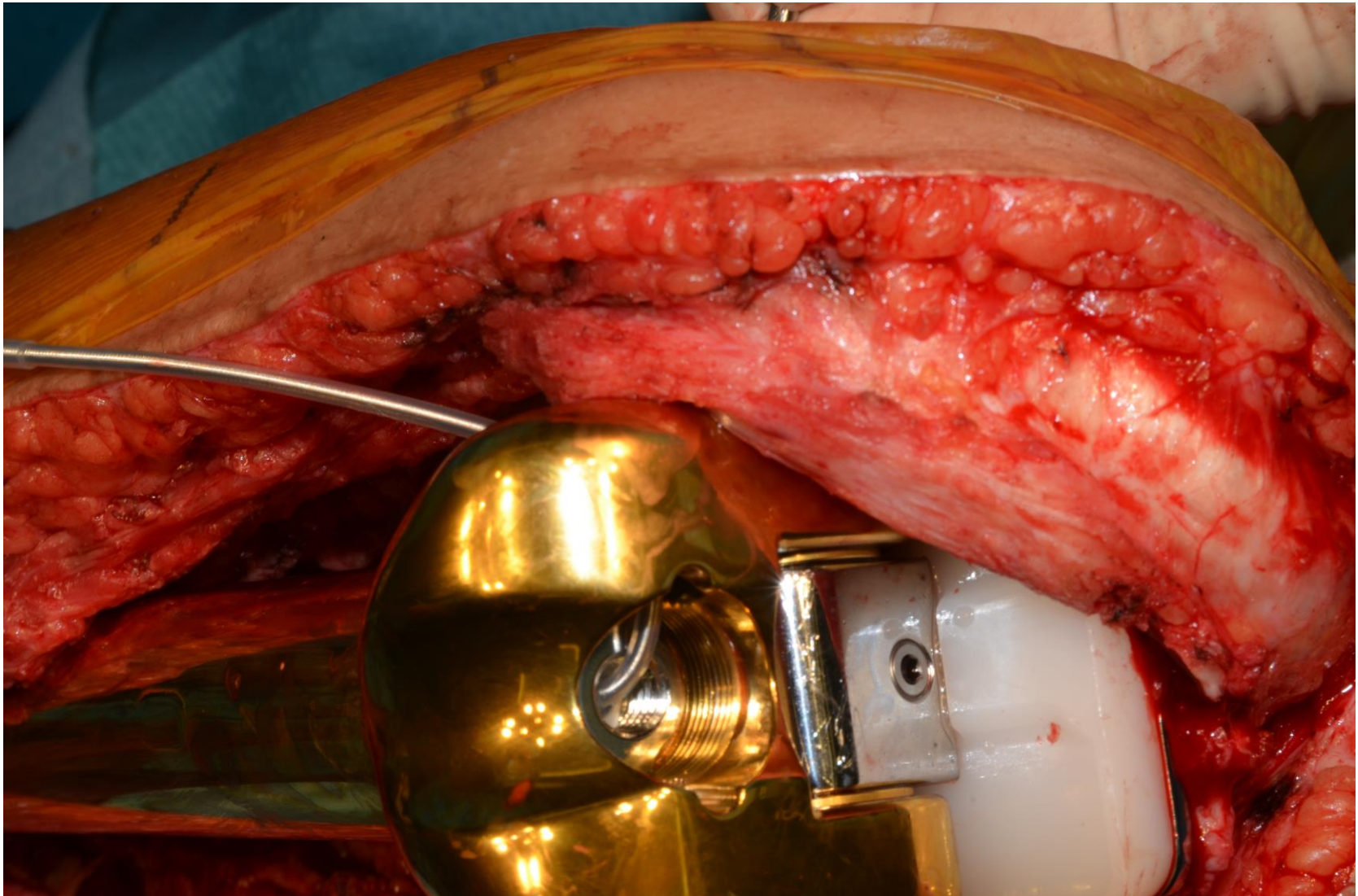
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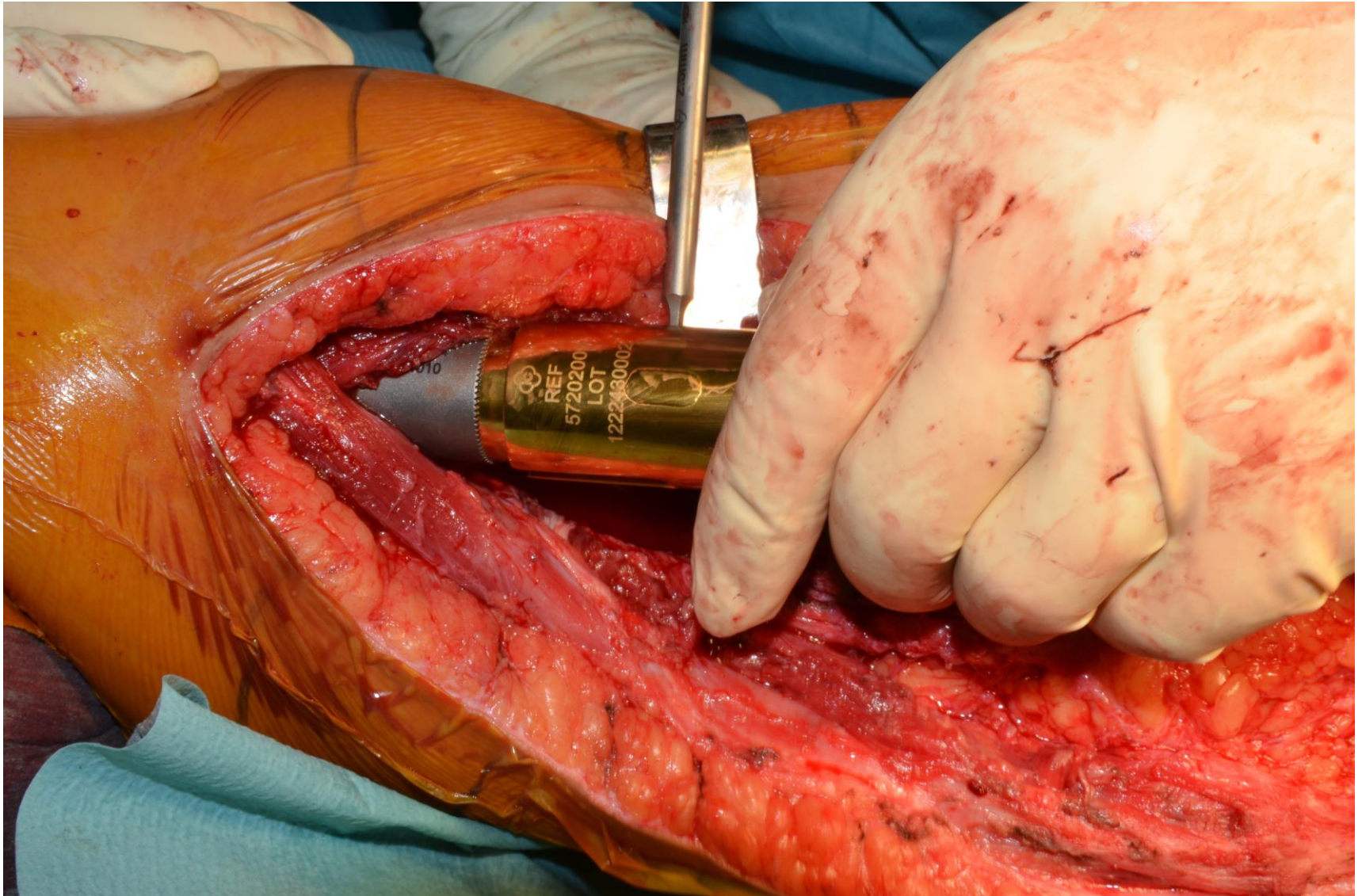
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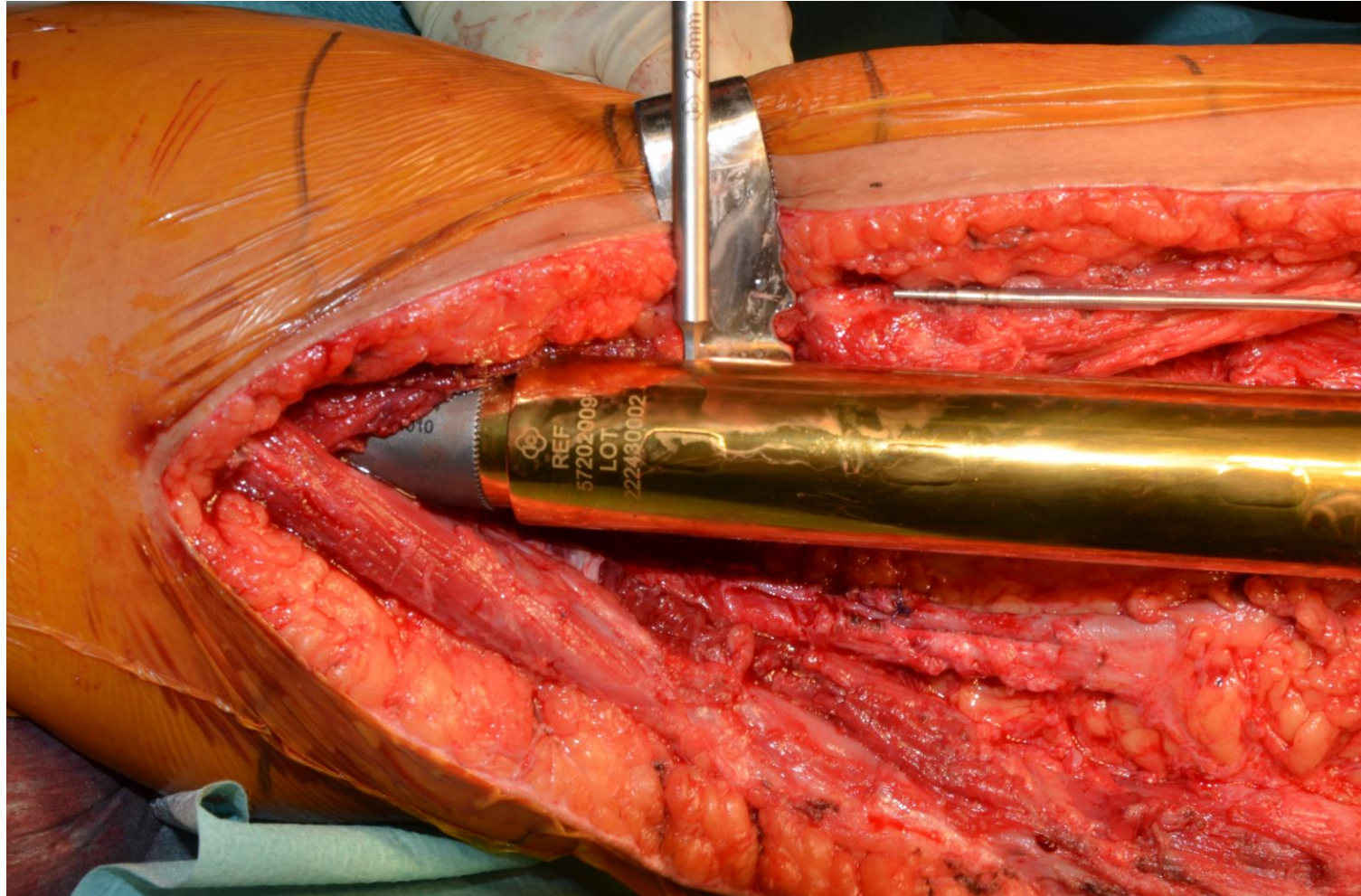
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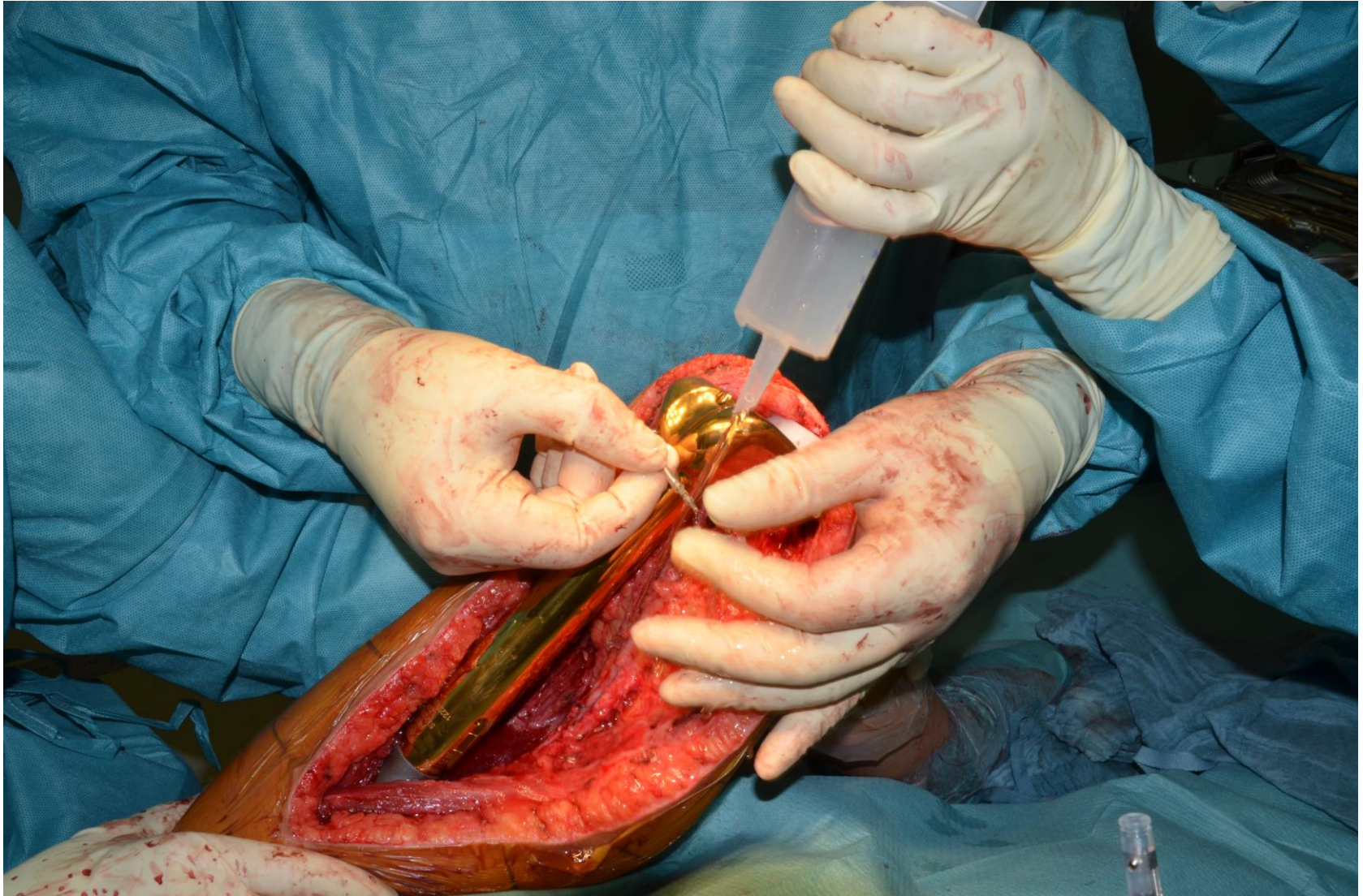
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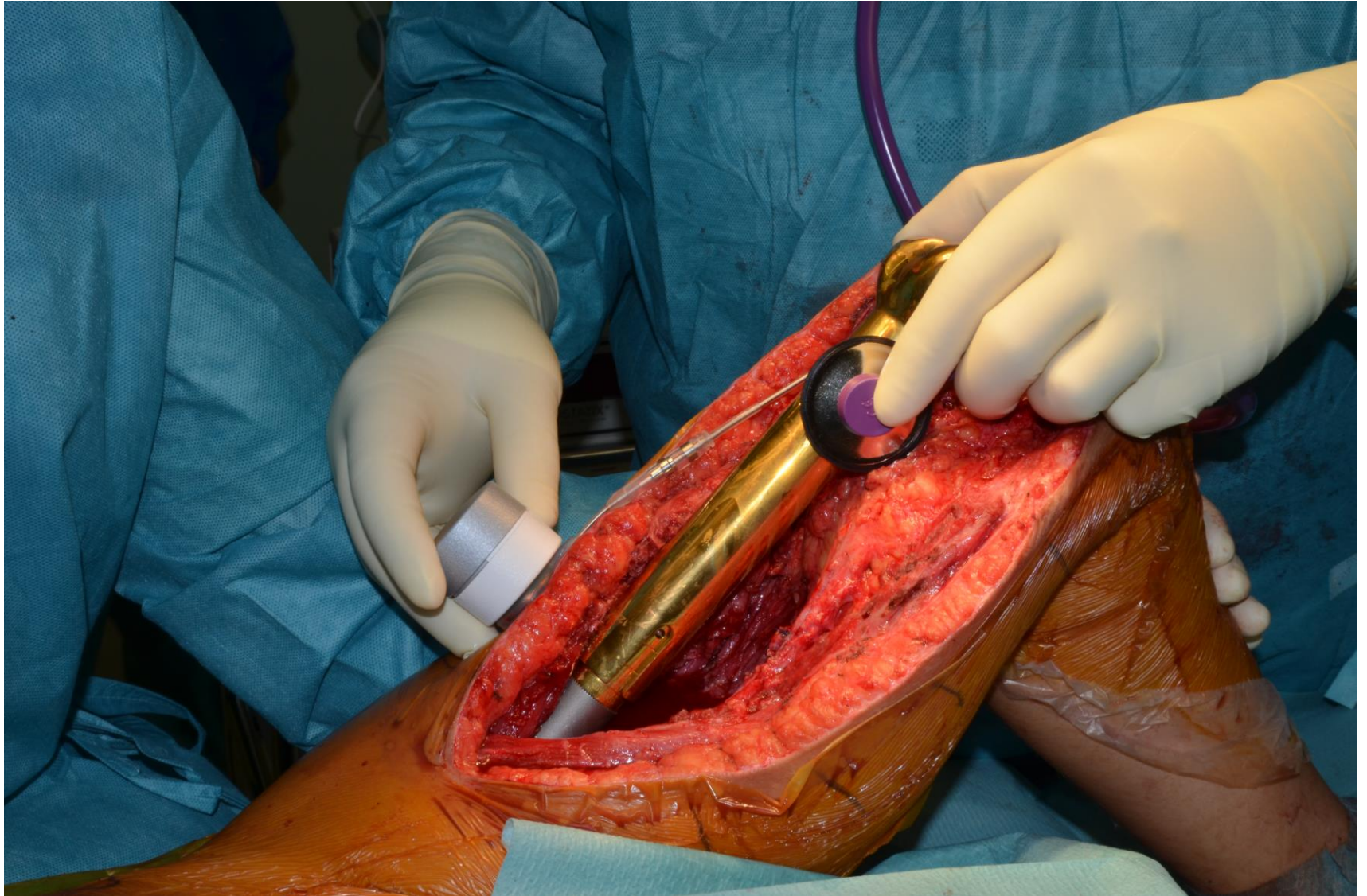
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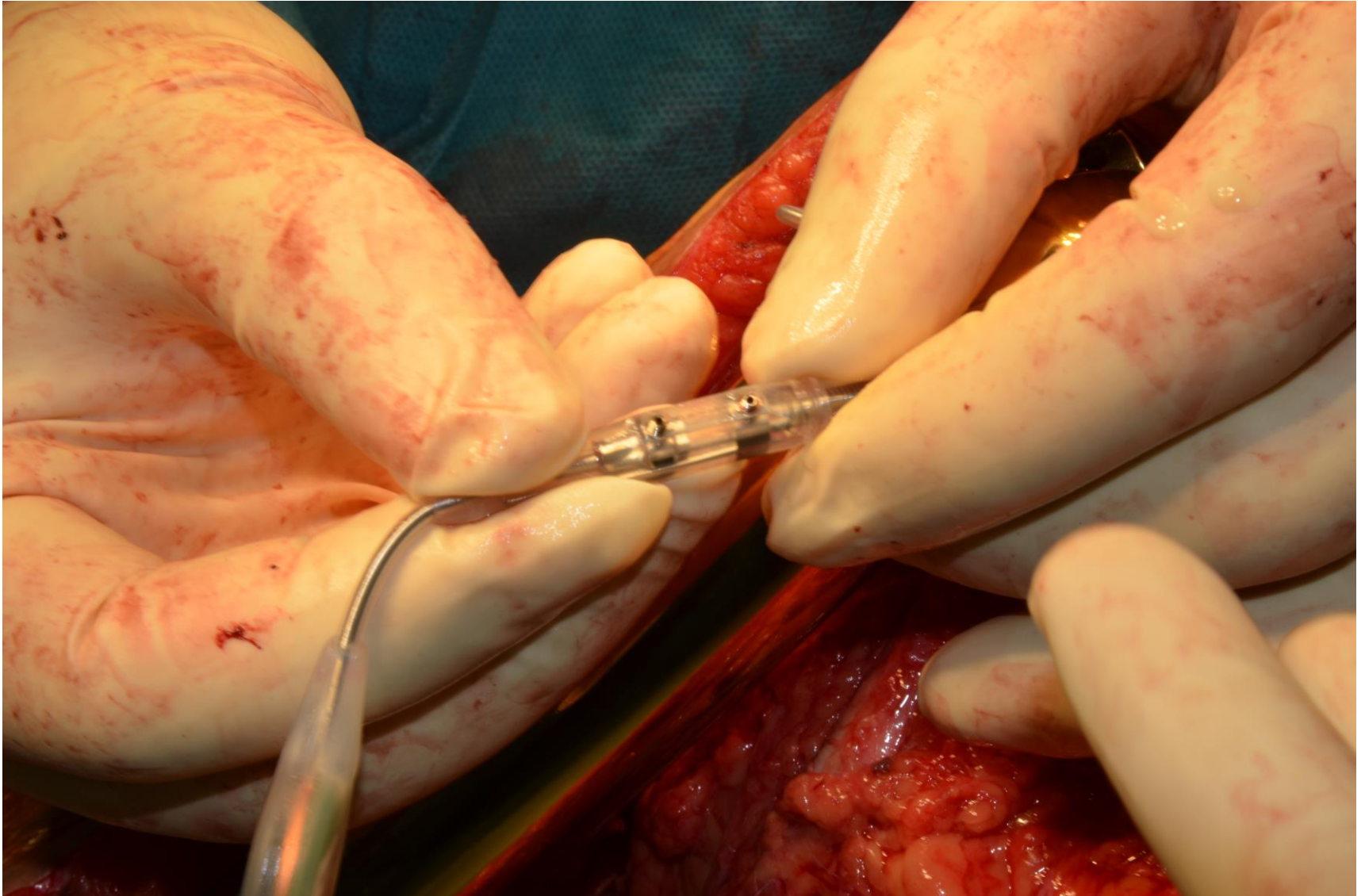
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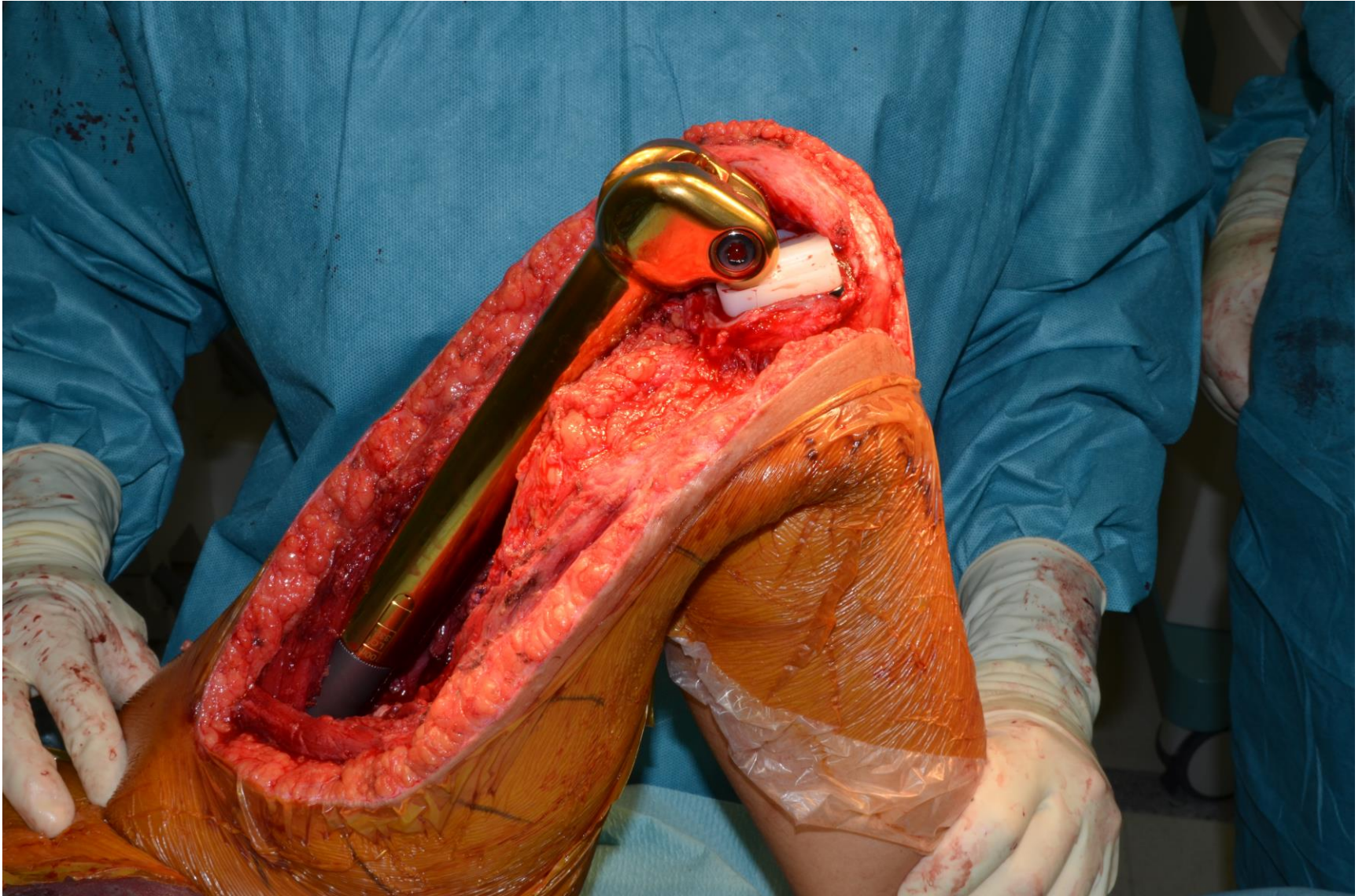
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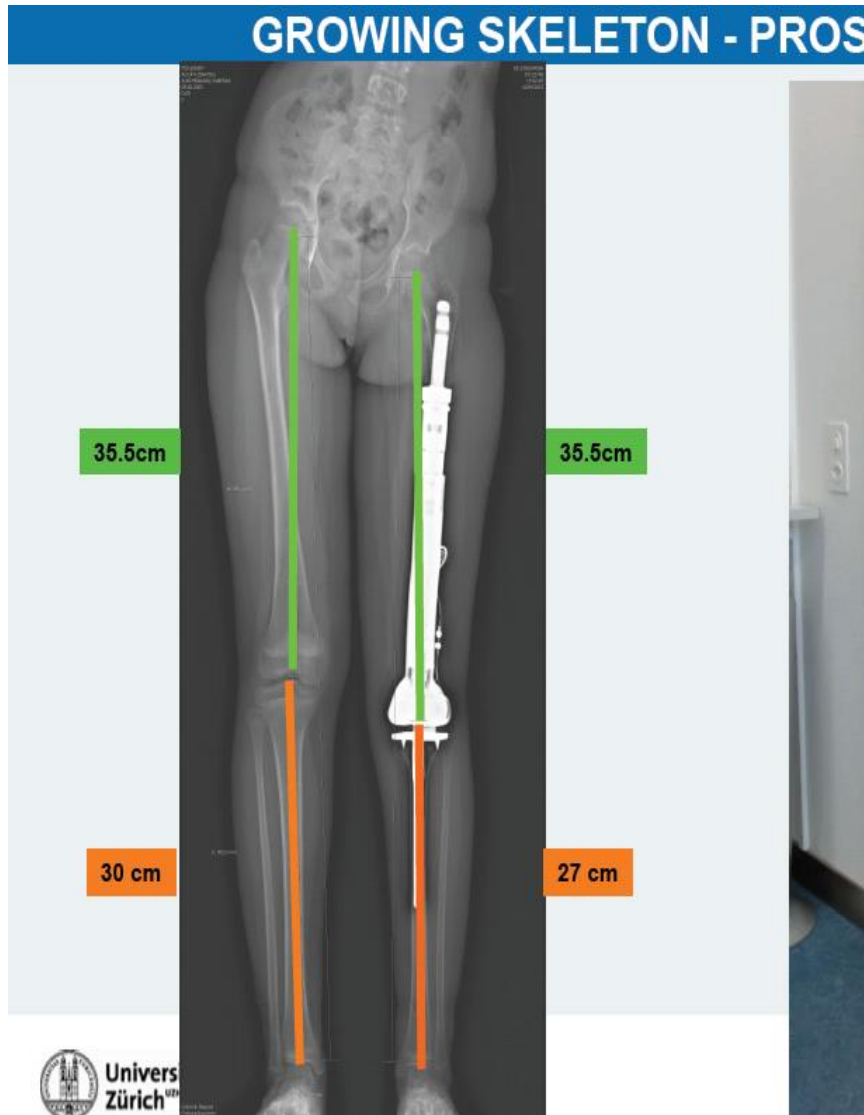
October 02, 2012

Distal femur; growing prosthesis / f / 51/2 yr

- Follow up for regular prosthetic extension are planned

Distal femur; growing prosthesis / f / 51/2 yr

August 2013



Distal femur; growing prosthesis / f / 51/2 yr



decision to implant a growing rod into the tibia, to reach equal tibia length, while keeping the femoral prosthesis.

**-Osteotomy of both tibia AND fibula to allow distraction
(-first –in this combination-such operation world-wide!)**

3rd Surgery January 2016

Distal femur; growing prosthesis / f / 51/2 yr

MUTARS **BioXpand II**

Adolescent/Child

Bone Lengthening Capacity 60mm

Femur

Distal Femur 160mm

Fitbone TAA 1180

Tibia

Straight, polished stem
(exchangeable)



3rd Surgery January 2016

Distal femur; growing prosthesis / f / 51/2 yr



3rd Surgery January 2016

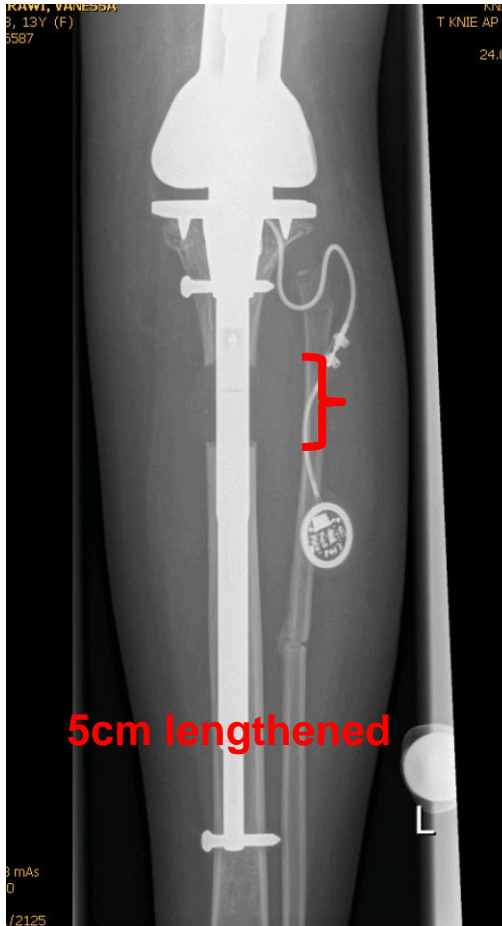
Distal femur; growing prosthesis / f / 51/2 yr

Feb: 1 month postop



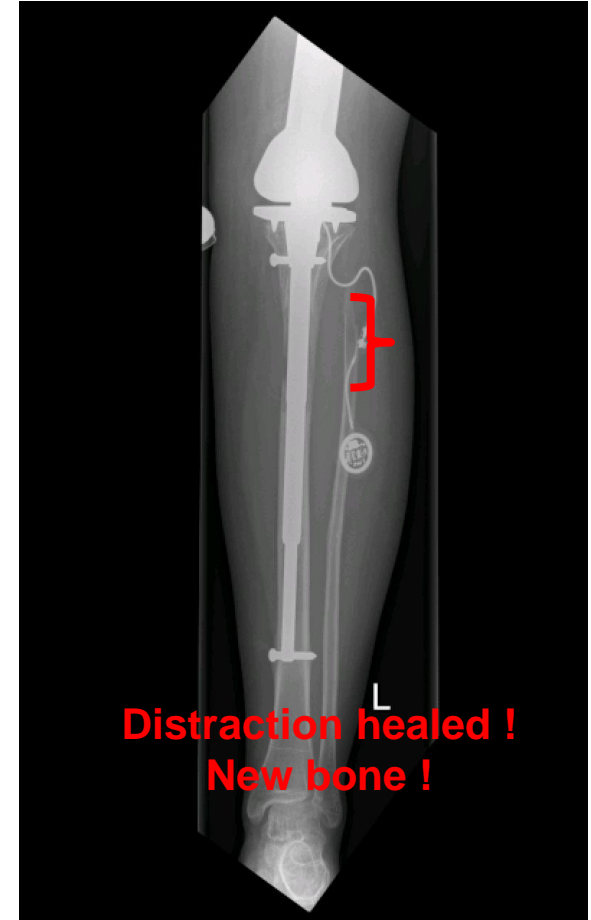
1cm lengthened

April: 3 months postop



5cm lengthened

Sept: 8 months postop

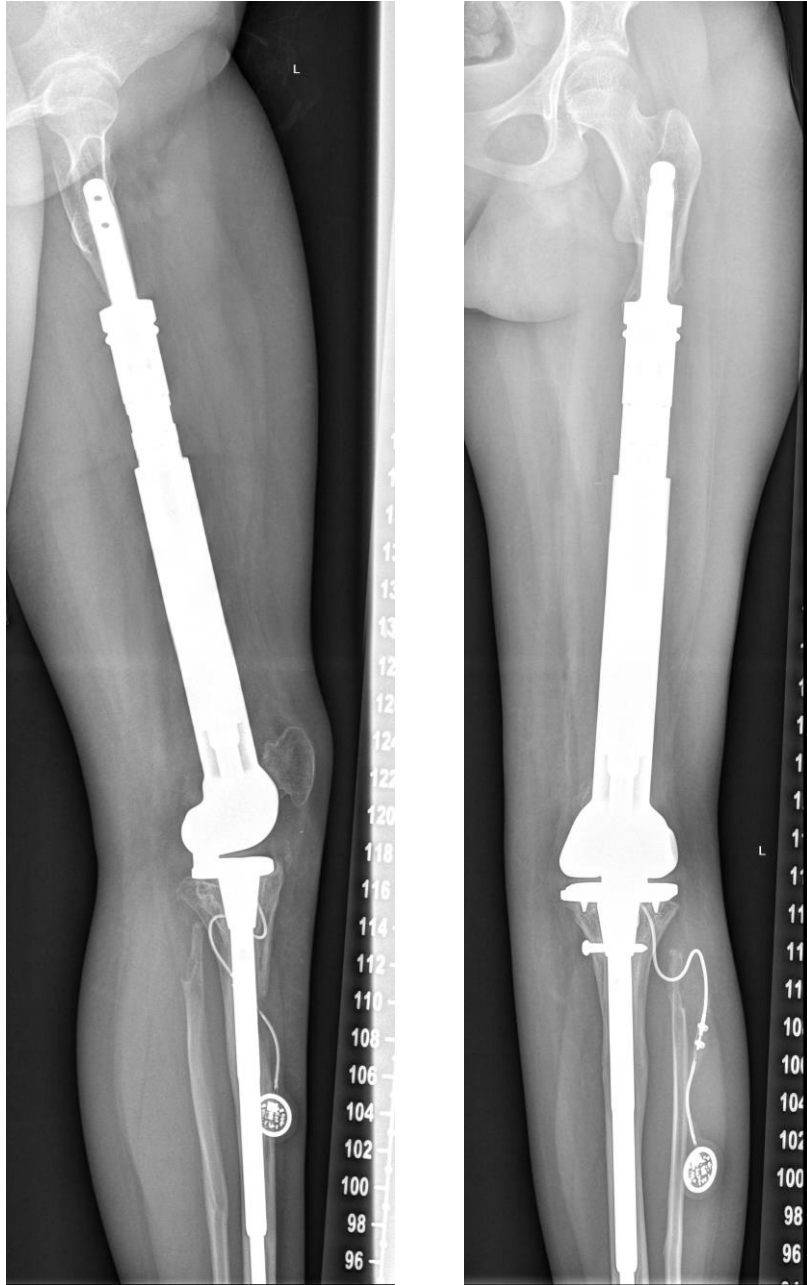


Distraction healed!
New bone!

tibia growing over time, and consolidation of new bone

2016

Distal femur; growing prosthesis / f / 51/2 yr



MARCH 21, 2017

