

proximal leg; epiphysis sparing; grower

♂ 10 yo, student

1st referral: 19.01.2011

HPI:

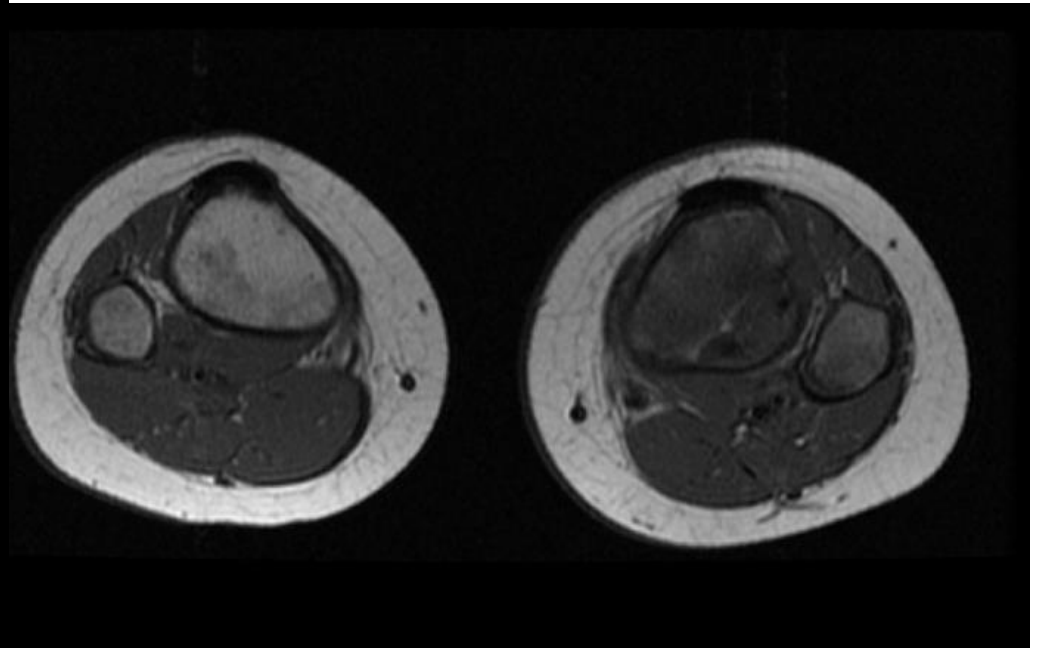
Left knee pain since december

No trauma

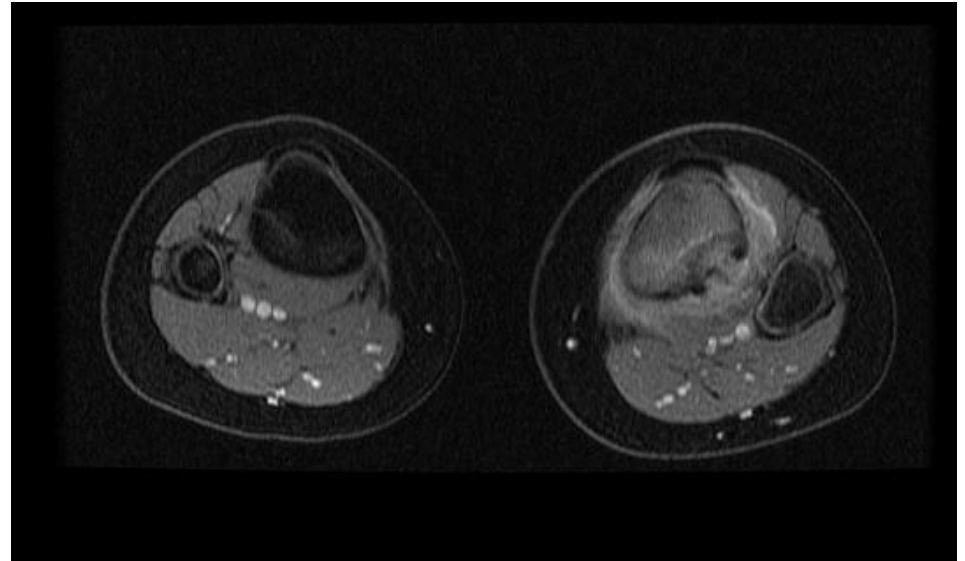
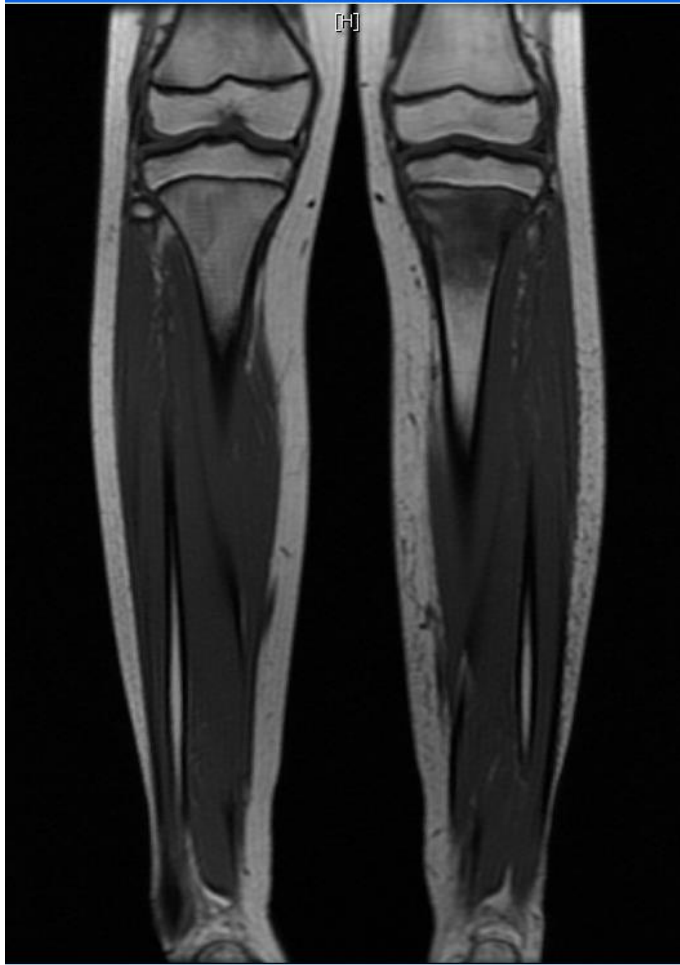
PMH:

non contributory

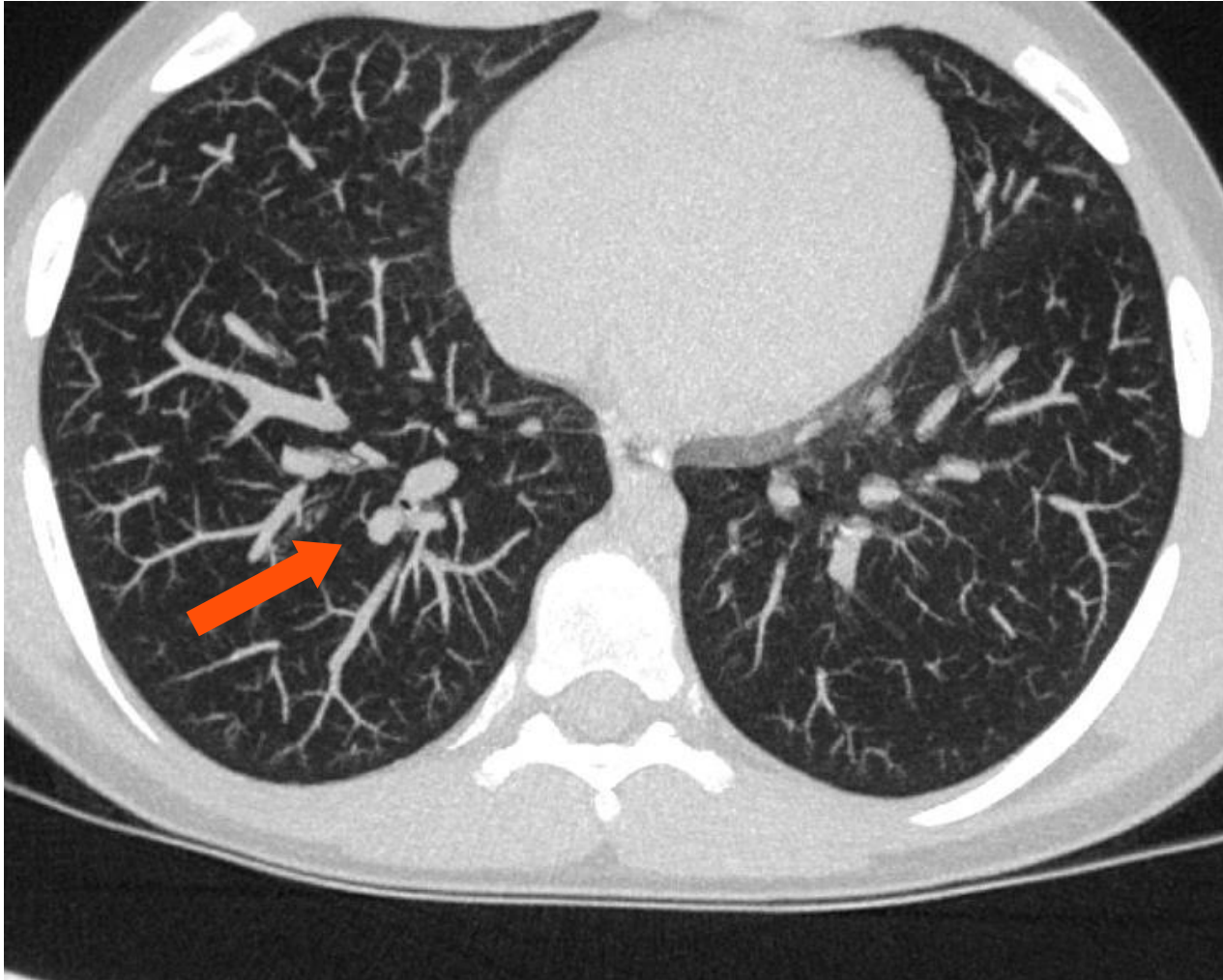
proximal leg; epiphysis sparing; grower



proximal leg; epiphysis sparing; grower MRI lower leg, Dec 09, 2010



proximal leg; epiphysis sparing; grower CT-Chest, Dec 09, 2010



Small pulmonary nodules DD primary metastasis, nonspecific

proximal leg; epiphysis sparing; grower biopsy, Dec 14, 2010

**High grade Osteosarcoma
(Biopsy antero-medial)**

proximal leg; epiphysis sparing; grower

S.C.; M; 10j

Klinische Angaben

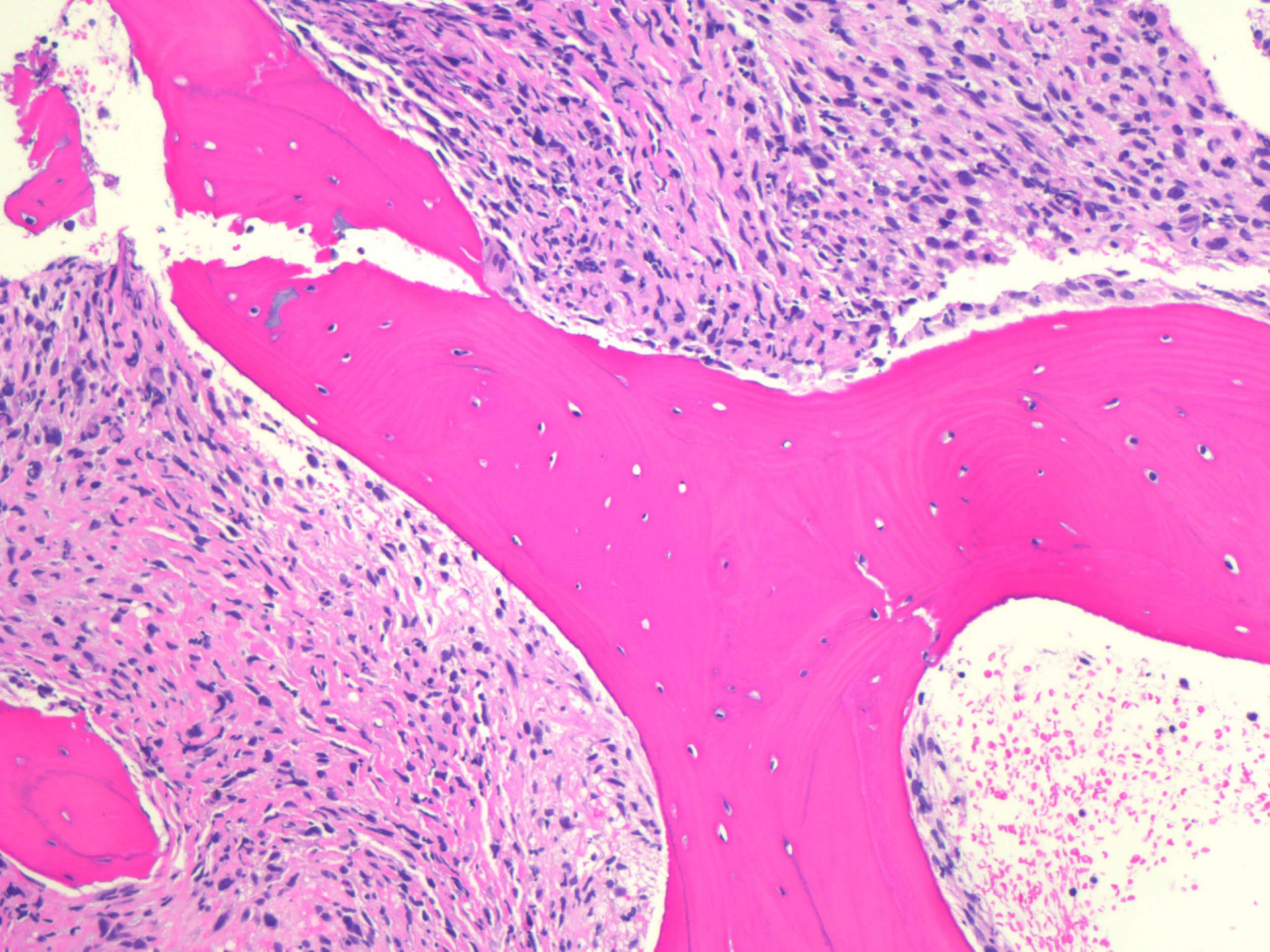
Pathologische Fraktur proximale Tibia links. Radiologisch sklerosierende Veränderungen.
Tumor: Sarkom, anderes?

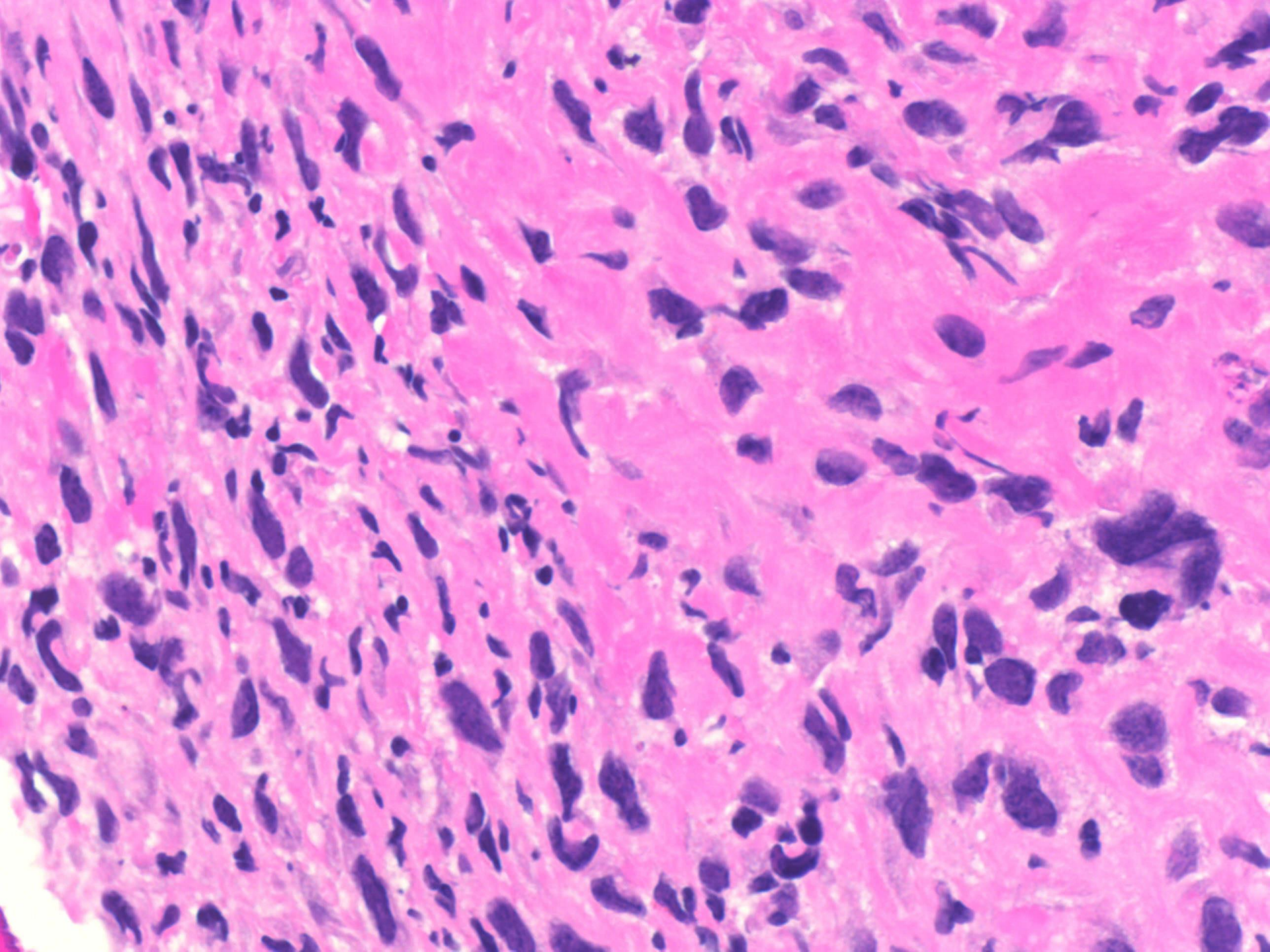
Angaben zur Probe

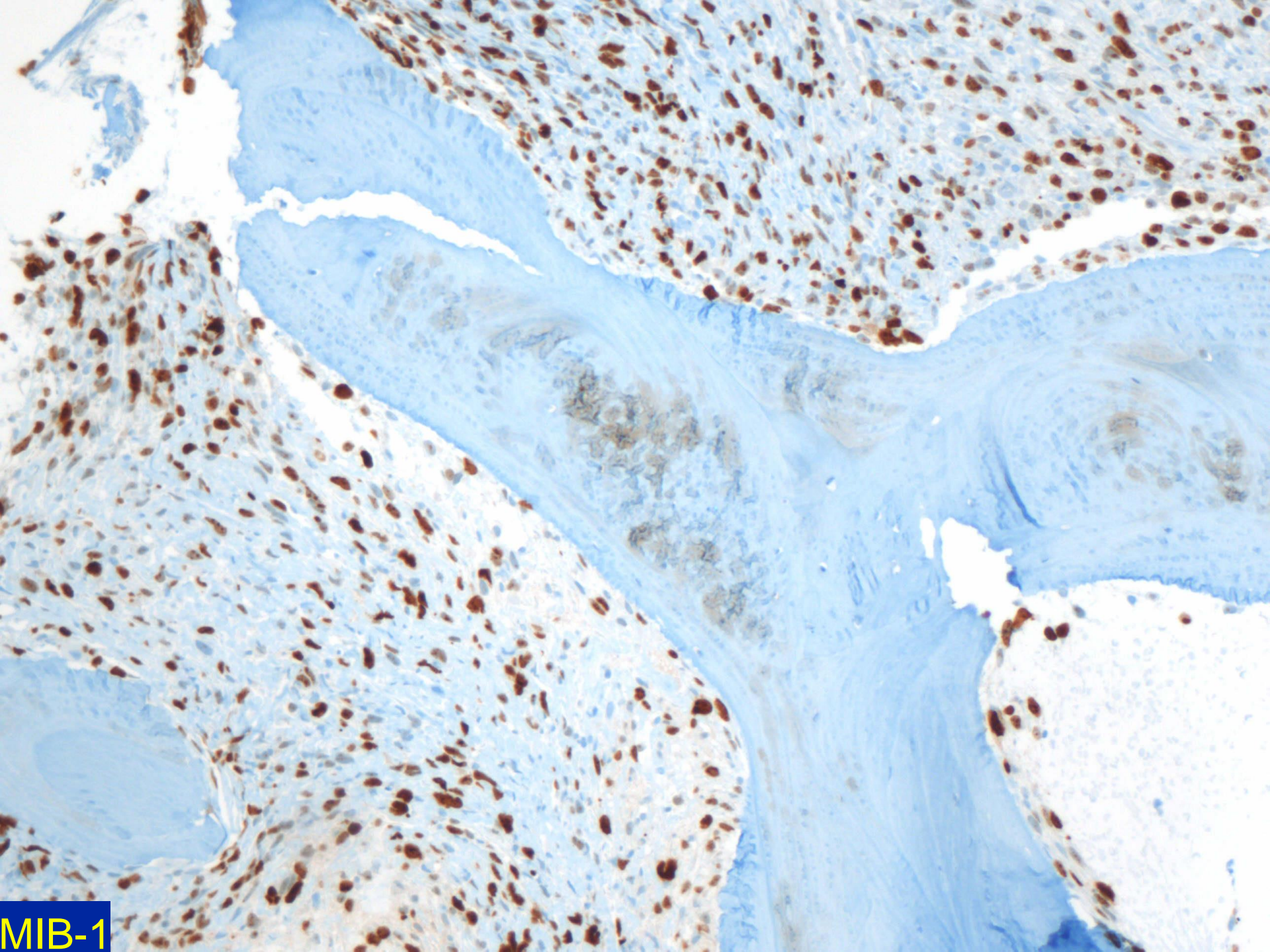
Proximale Tibia links

Makroskopischer Befund

Eine 0,7cm lange bis 0,1cm blass-braun-graue Knochenstanze.







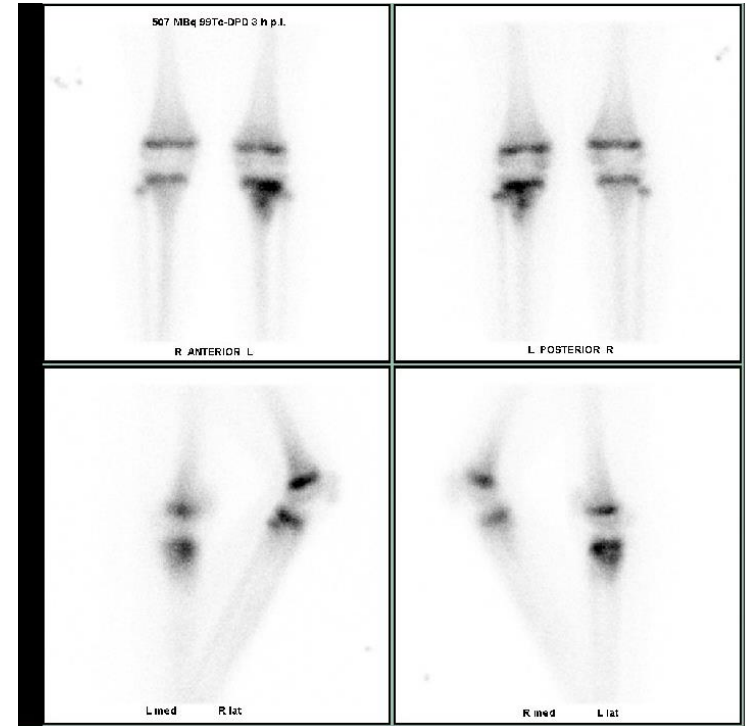
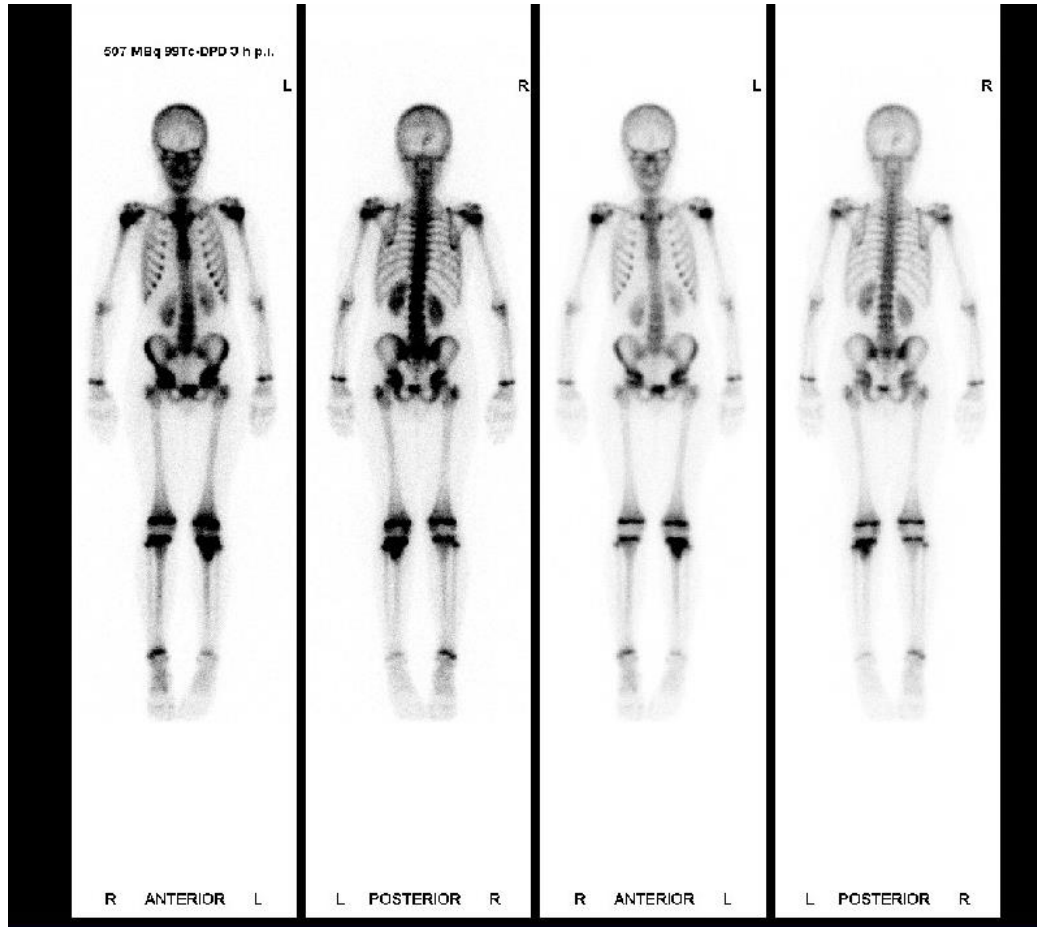
MIB-1

proximal leg; epiphysis sparing; grower

Diagnose

Knochenstanzbiopsie (proximale Tibia links): High grade Osteosarkom, überwiegend fibroblastärer Typ (siehe Kommentar).

proximal leg; epiphysis sparing; grower scintigraphy, Jan 04, 2011



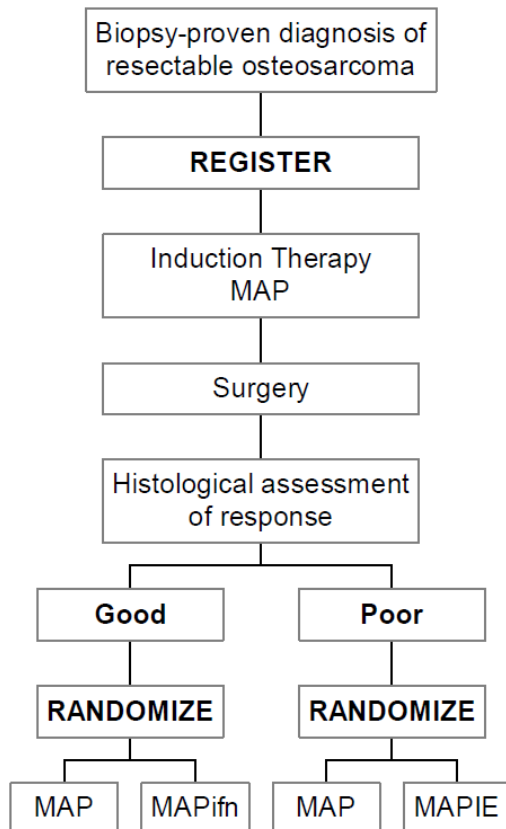
proximal leg; epiphysis sparing; grower

planned action:

- neoadjuvant chemotherapy
- Limb salvage procedure
- Joint-preserving
- Keep growth potential
- minimizing risk of recurrence

proximal leg; epiphysis sparing; grower neoadjuvant chemotherapy 28.12.-4.3.2011

EURAMOS 1



proximal leg; epiphysis sparing; grower surgery, March 15, 2011

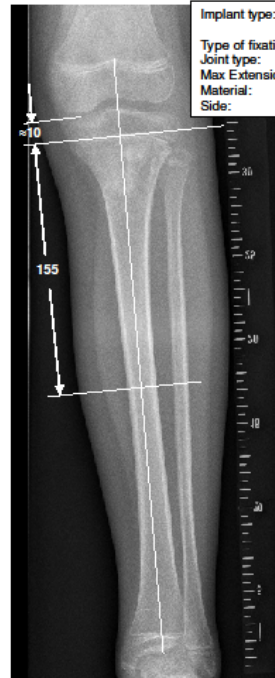
surgical planning:

STANMORE IMPLANTS WORLDWIDE
Telephone number: +44 (0) 20 8954 1402

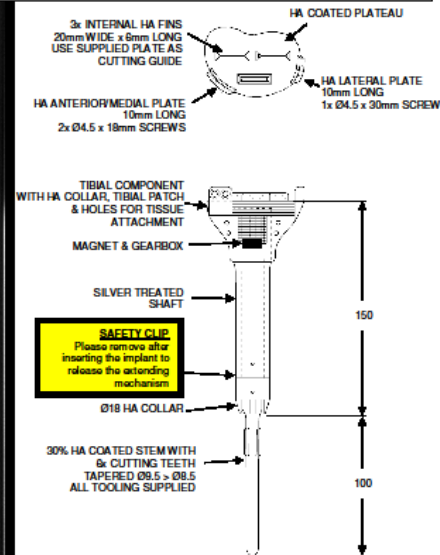


OPERATION DRAWING

MR The JTS[®] extendible implant is MRI UNSAFE - the implant or a patient with an implant in place must not be taken into an MRI environment.



Implant type: EXTENDIBLE, PROXIMAL TIBIAL REPLACEMENT
NON-INVASIVE GROWER
Type of fixation: Uncemented Distal Stem – Uncemented Proximally
Joint type: N/A Joint Saver
Max Extension: 50mm (Do not over extend)
Material: Ti – HA- TiN – Silver Treatment
Side: Left
Driver **B**

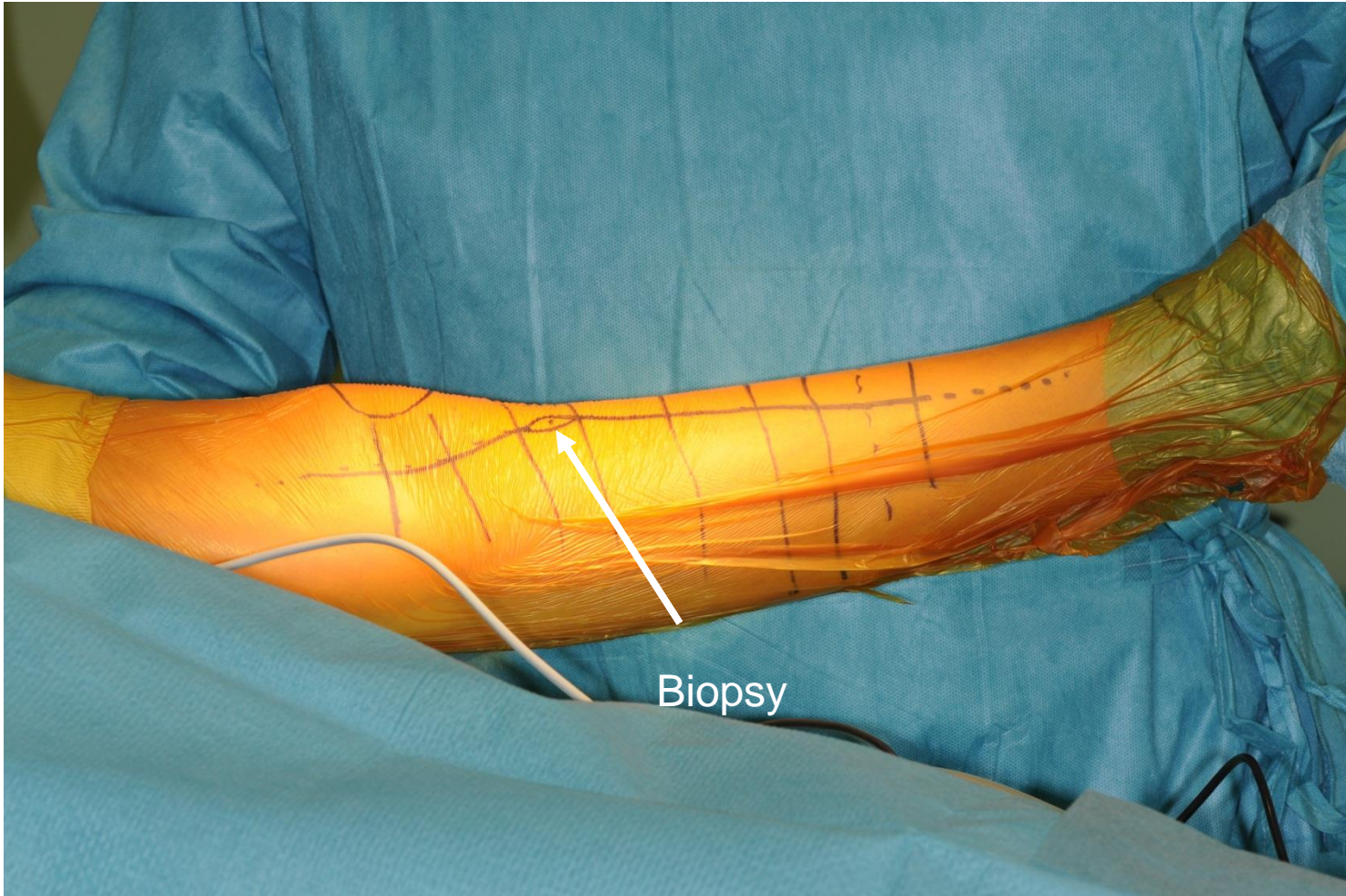


SAFETY CLIP
Please remove clip inserting the implant to release the extending mechanism

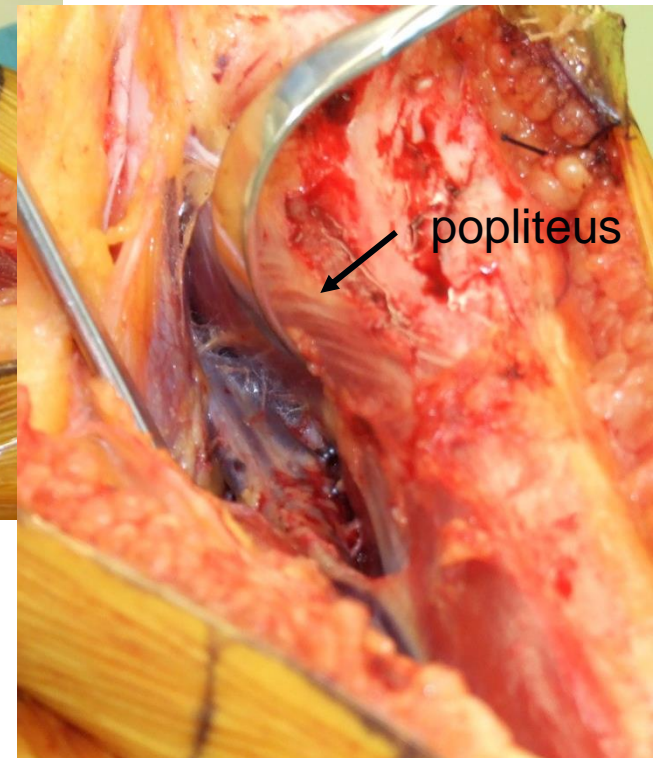
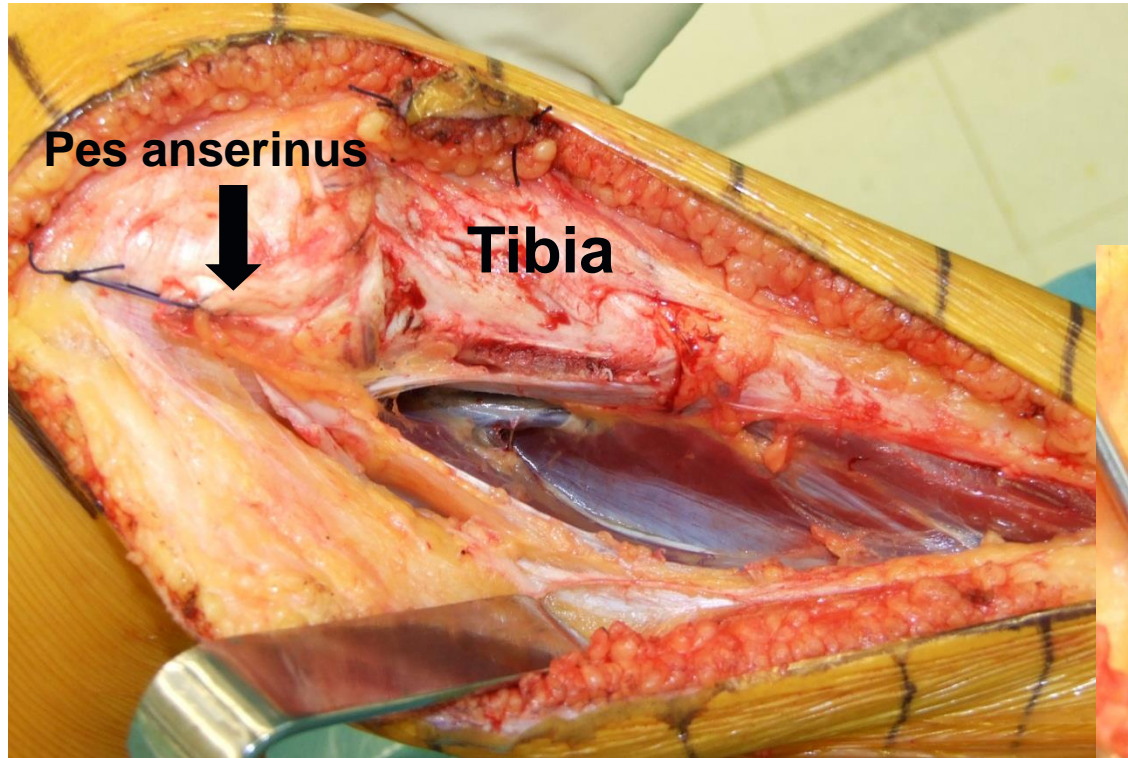
- NOTES:
- This implant contains a magnetically driven gearbox to remotely extend the implant post-operatively as the patient grows.
 - For this a Mobile Limb Extender – Model MLE3 is required
 - Insert patient's limb from the front of the machine ensuring the magnet (shown above) is centrally positioned within the device.
 - Turn the switch to POSITION 'B' to extend the device and POSITION 'A' to reverse it.
 - Allow 4 minutes to extend 1mm and it is recommended that only 3 to 4mm be extended at any one sitting. This allows soft tissue relaxation and reduces the possibility of overloading the gearbox.
 - Switch the drive off before removing the limb.
 - The magnet is made from NiTiB alloy and is enclosed in a titanium casing sealed with adhesive. The gearbox is constructed from Stainless Steel parts coated with titanium nitride. The gearbox is lubricated with liquid paraffin.
 - The magnet and the gearbox are housed inside a silicone 'O' ring sealed chamber.

DRAWN BY _____ DATE _____

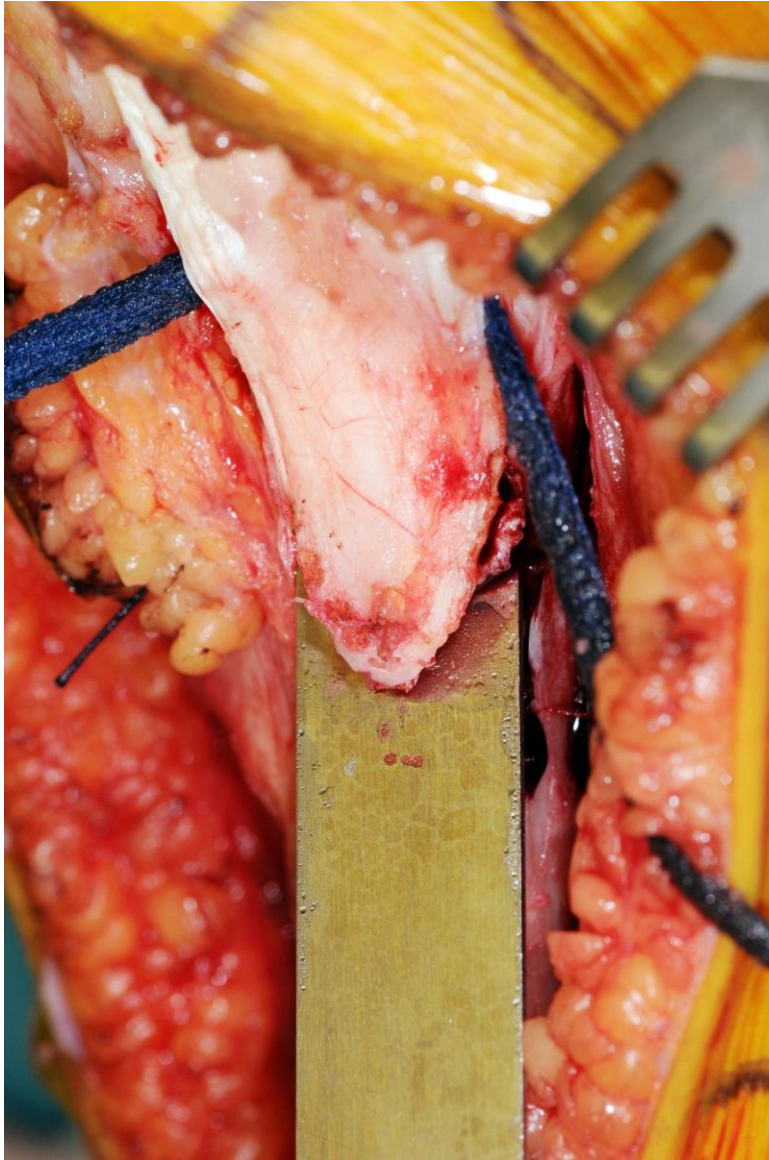
proximal leg; epiphysis sparing; grower surgery, Mar 15, 2011



proximal leg; epiphysis sparing; grower surgery, Mar 15, 2011



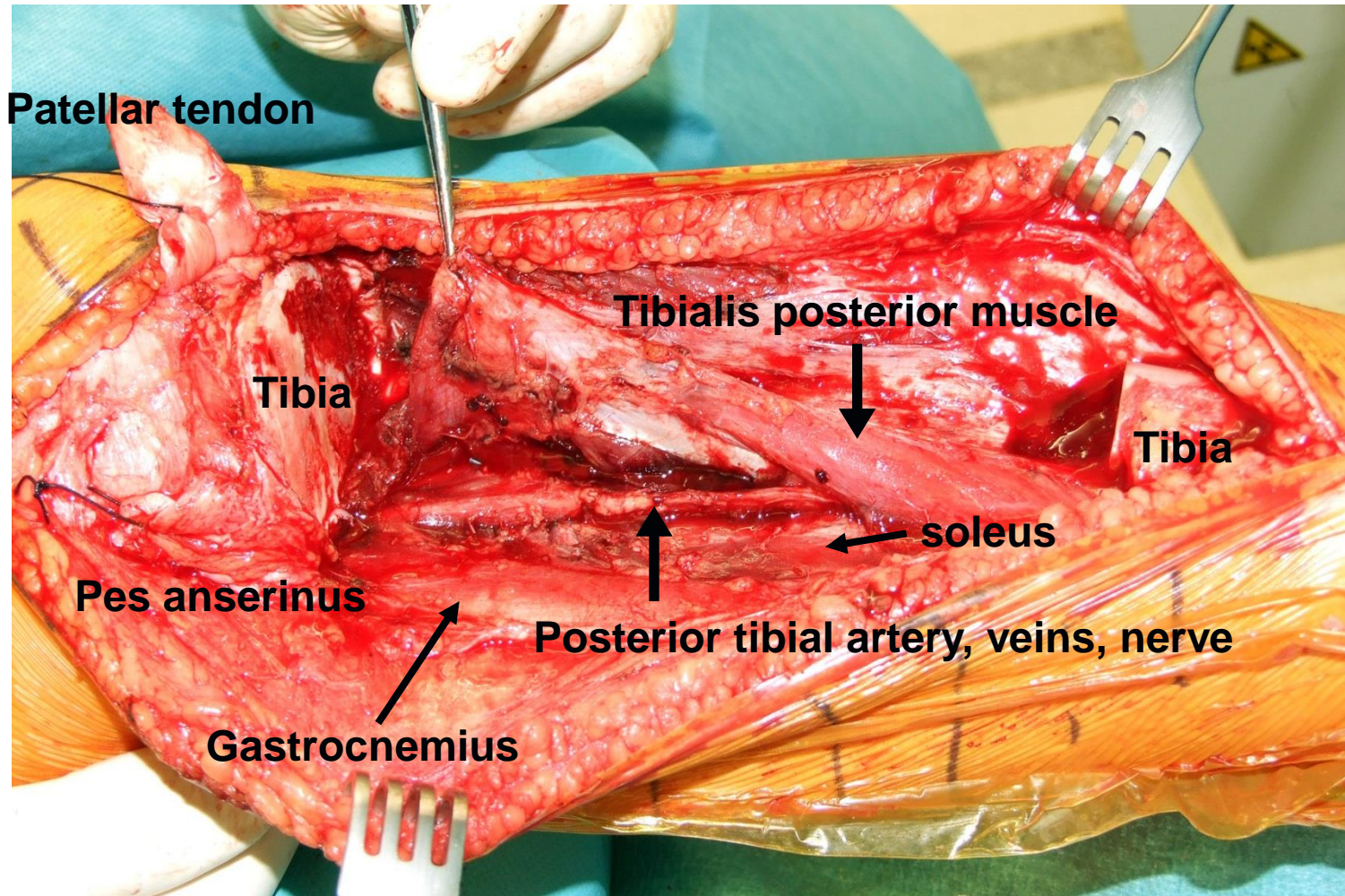
proximal leg; epiphysis sparing; grower surgery, Mar 15, 2011



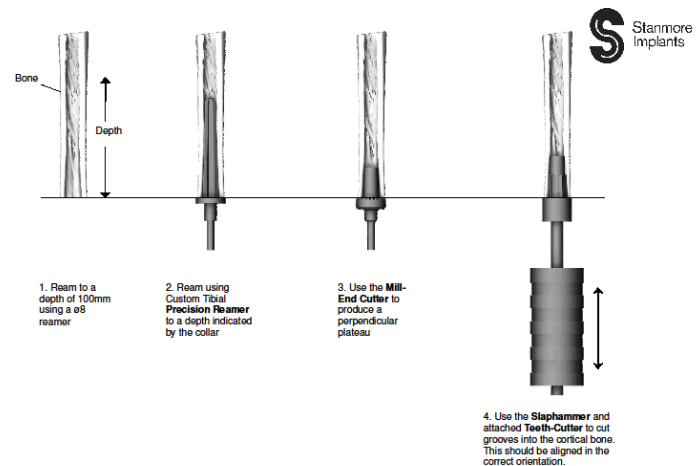
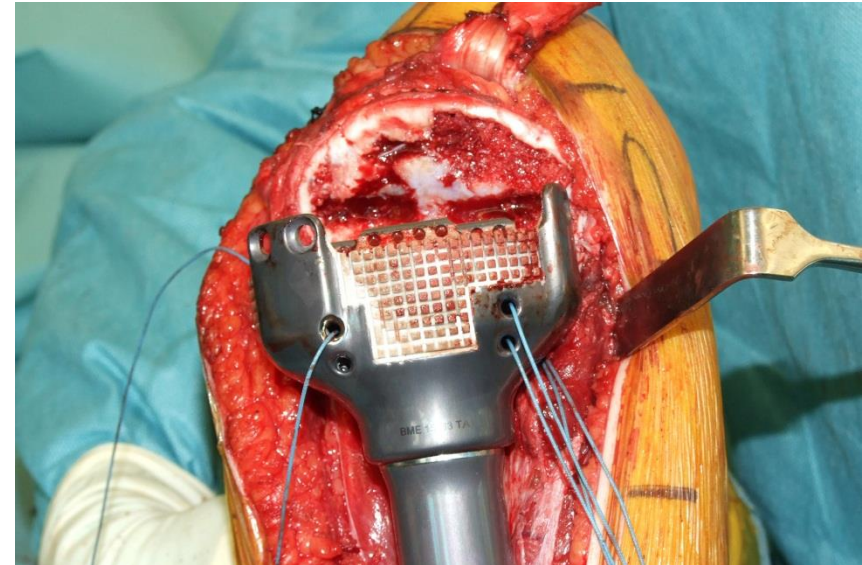
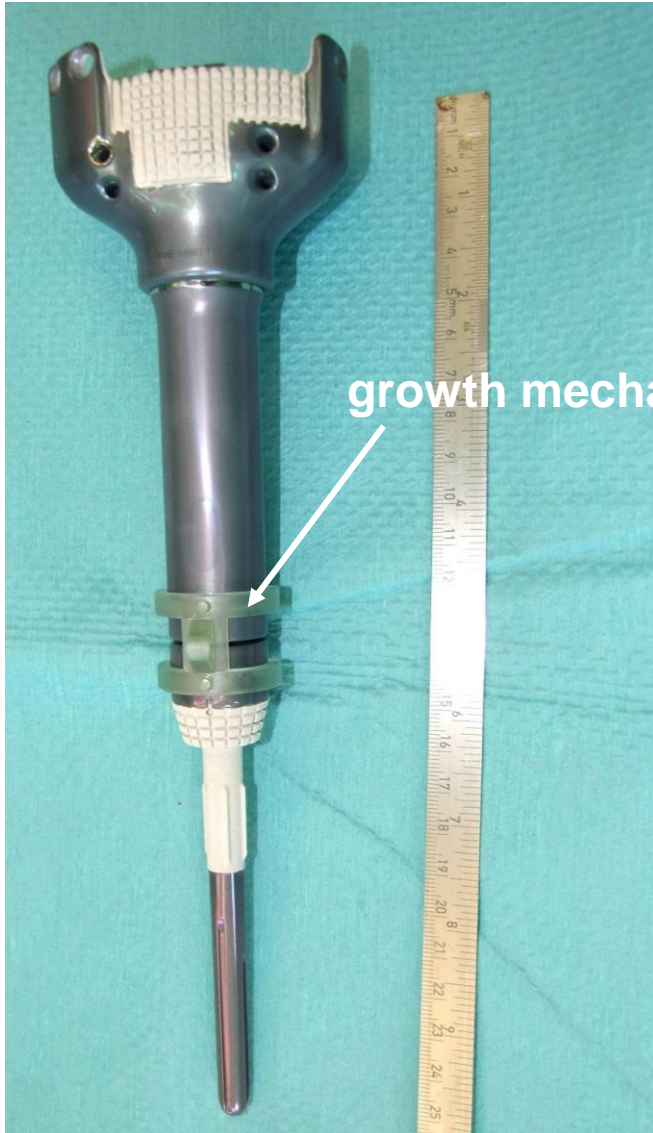
proximal leg; epiphysis sparing; grower surgery, Mar 15, 2011



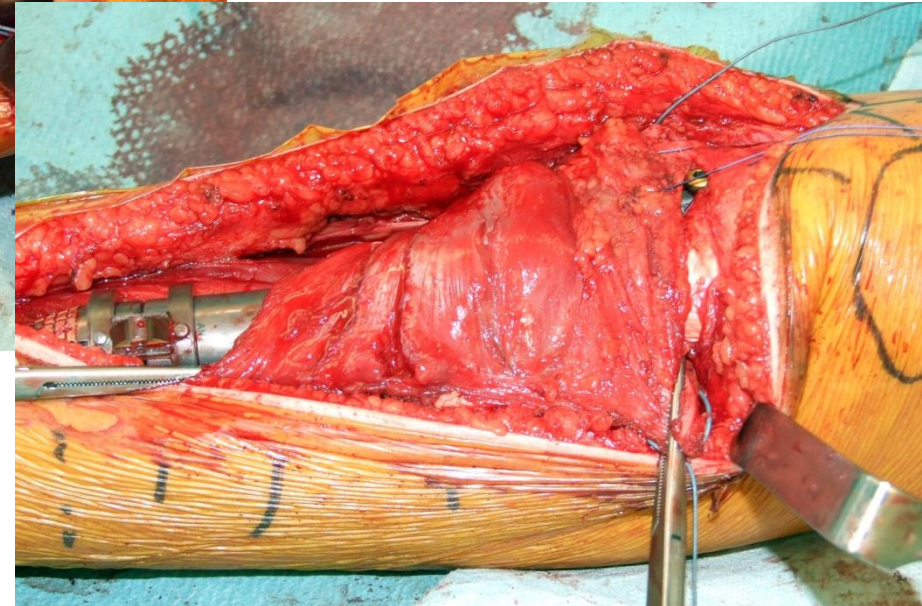
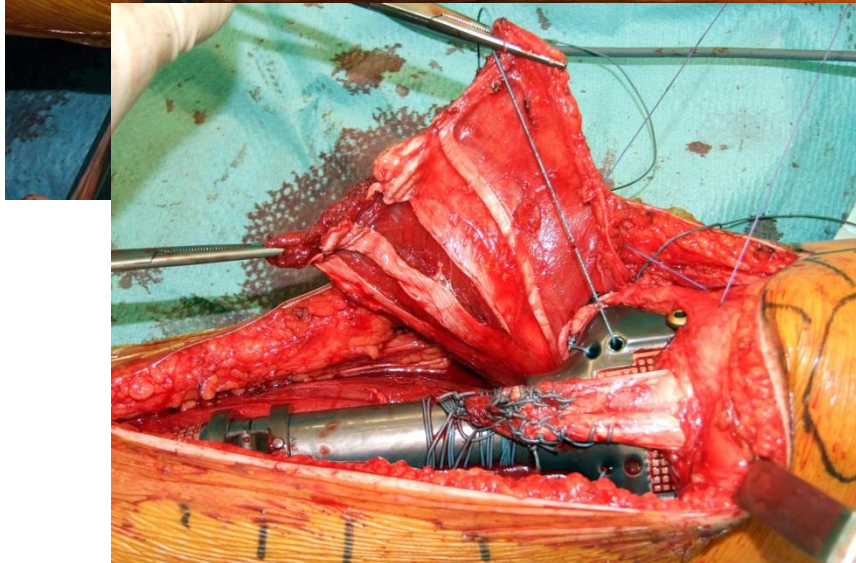
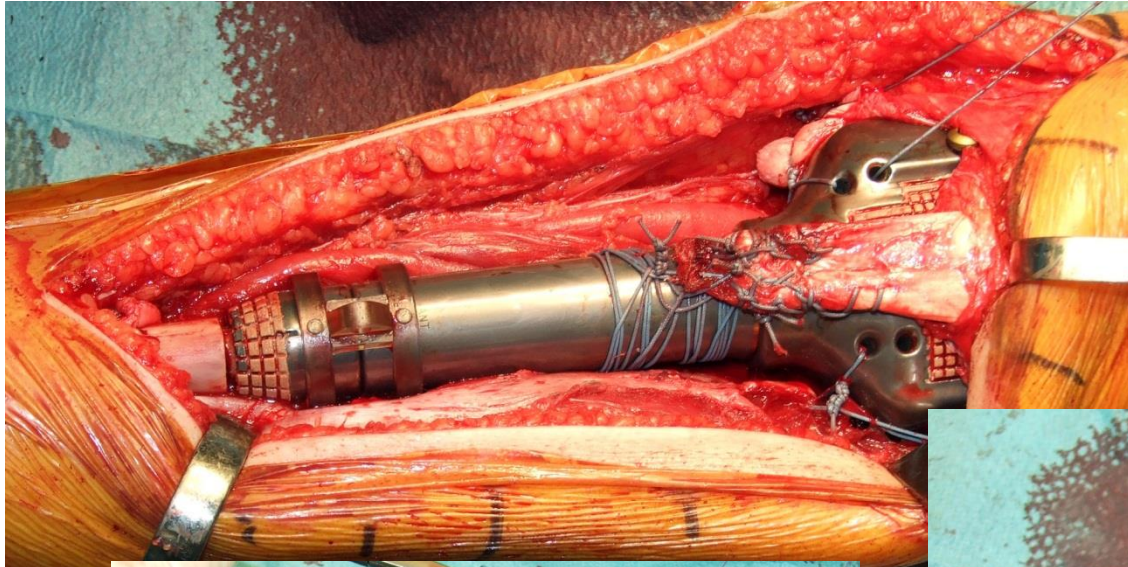
proximal leg; epiphysis sparing; grower surgery, Mar 15, 2011



proximal leg; epiphysis sparing; grower surgery, Mar 15, 2011



proximal leg; epiphysis sparing; grower surgery, Mar 15, 2011



proximal leg; epiphysis sparing; grower surgery, Mar 15, 2011



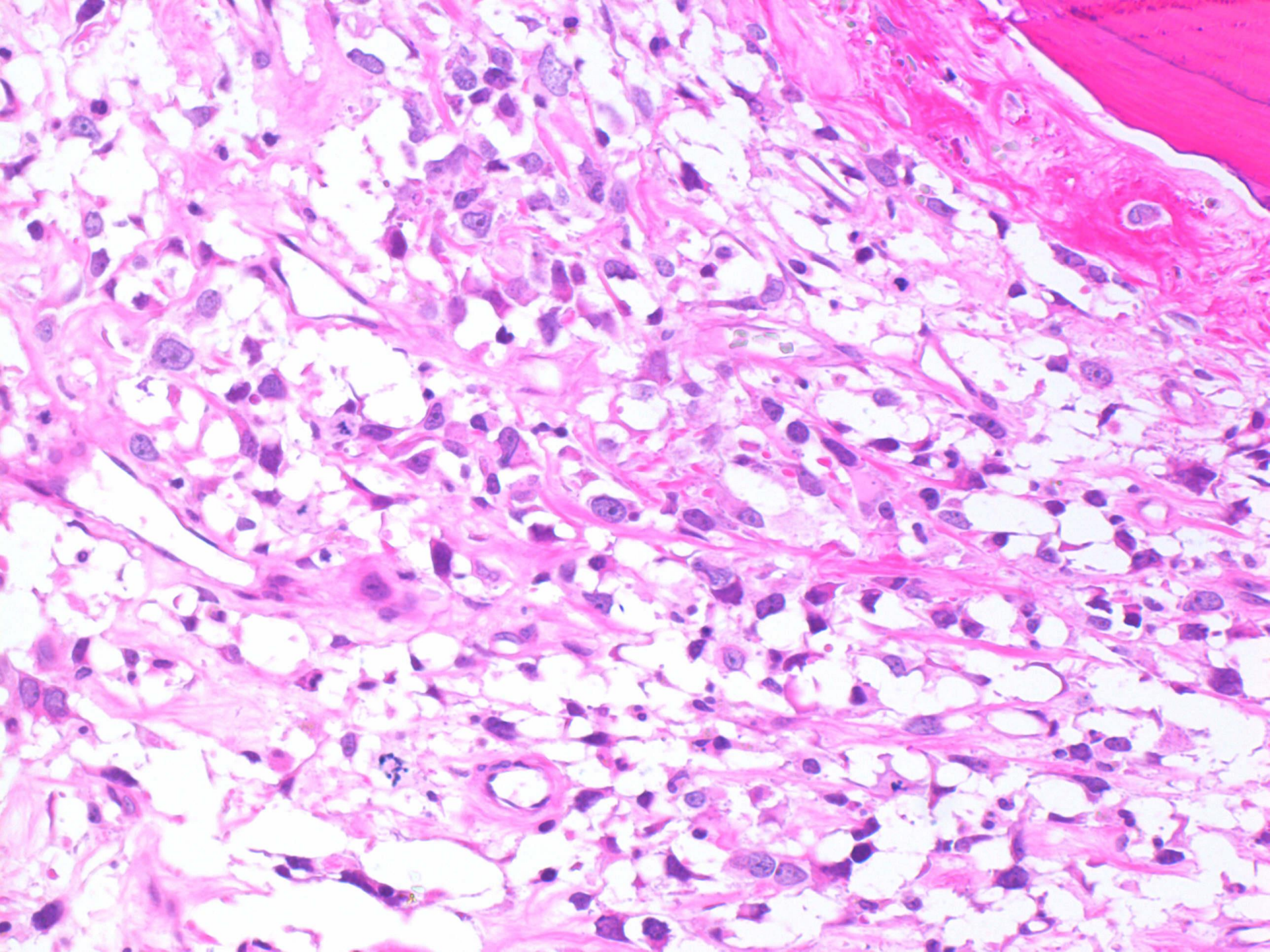
proximal leg; epiphysis sparing; grower Histology, Mar 15, 2011

Klinische Angaben

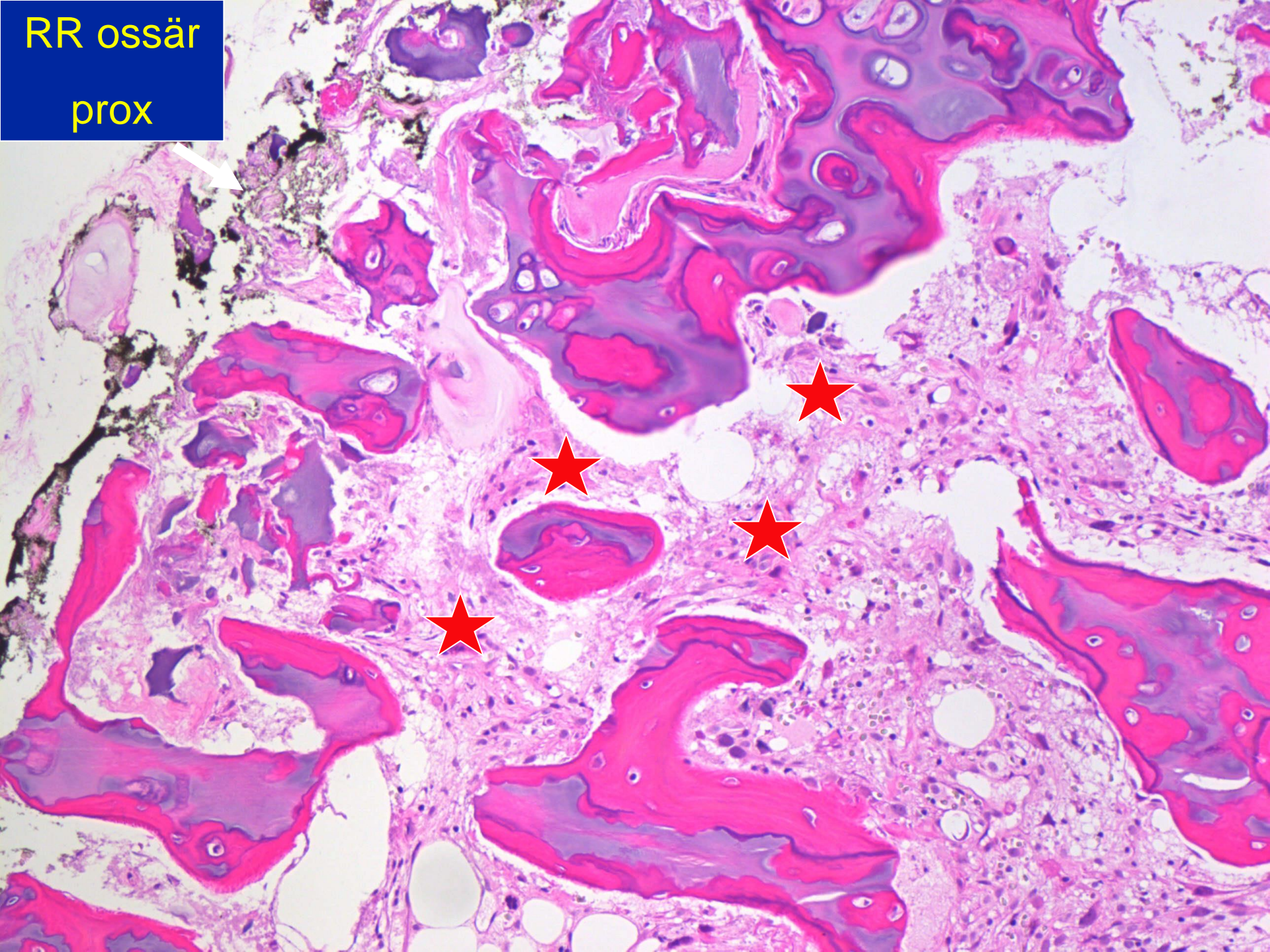
High grade-Osteosarkom proximale Tibia. Histo. / Ausdehnung? St. n. Chemotherapie.
Bemerkung: Biopsie-Entnahme durch Tibiaplateau erfolgt.

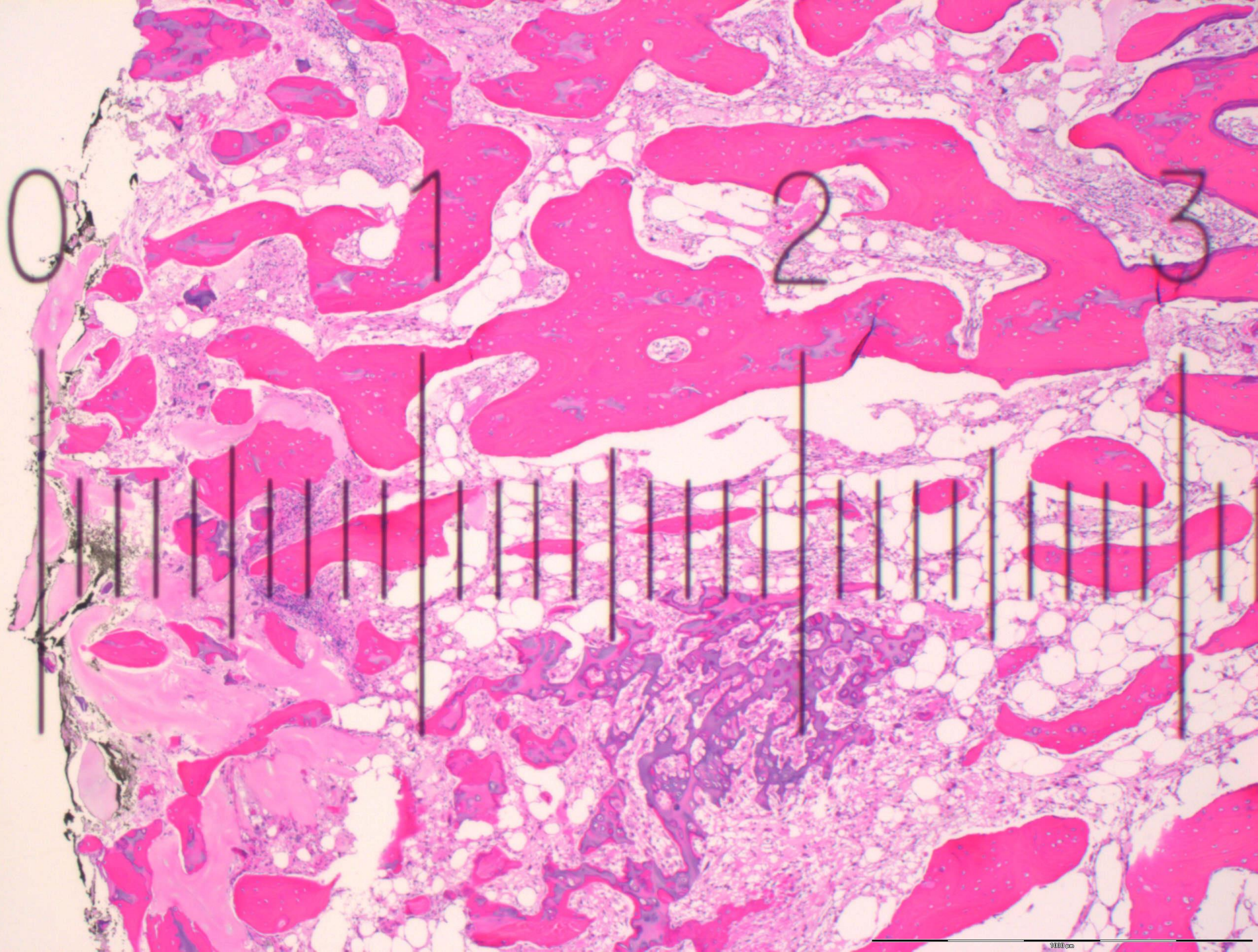
Angaben zur Probe

Tibia proximal links

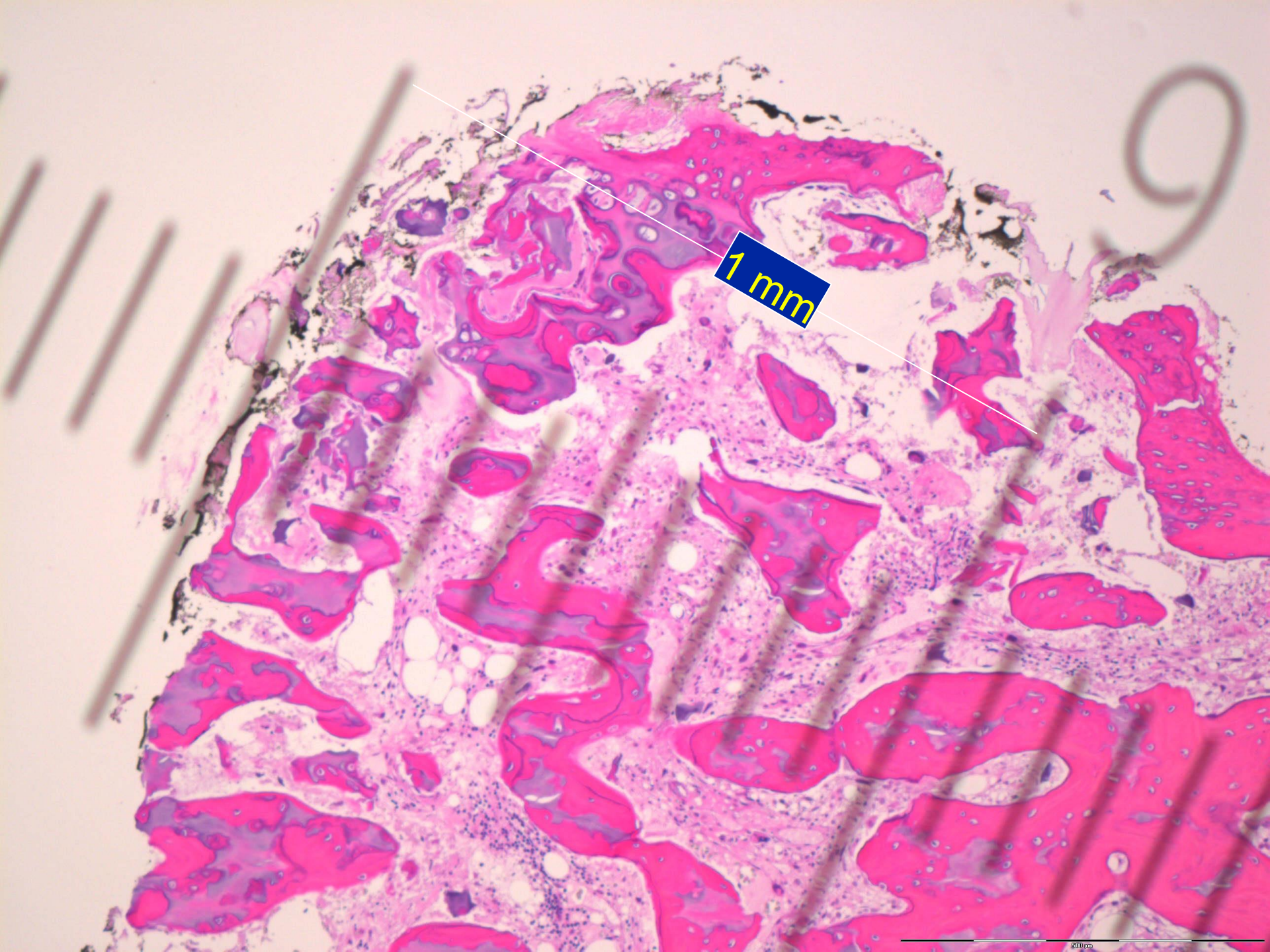


RR ossär
prox





1 mm



proximal leg; epiphysis sparing; grower Histology, Mar 15, 2011

Diagnose

Proximales Tibiaresektat von links mit kleinen vitalen Herden des vordiagnostizierten high-grade Osteosarkoms (<10% der untersuchten Tumorschnittfläche), bei St.n. neoadjuvanter Chemotherapie, einem Regressionsgrad III, nach Salzer-Kuntschik (Responder) entsprechend.

Tumordurchbruch durch die Kortikalis und Infiltration der subperiostalen Weichteile (nach dorsal) ohne Nachweis eines Periostdurchbruchs. Vorwachsen bis unmittelbar unterhalb der Epiphysenfuge mit einem minimalen Abstand der vitalen Tumorherde zum proximalen ossären Resektionsrand im dorsolateralen Bereich von < 0,5 mm. Minimaler Abstand zum tumorfreien distalen ossären Resektionsrand: >10 cm. Tumorfreier Weichteilresektionsrand.

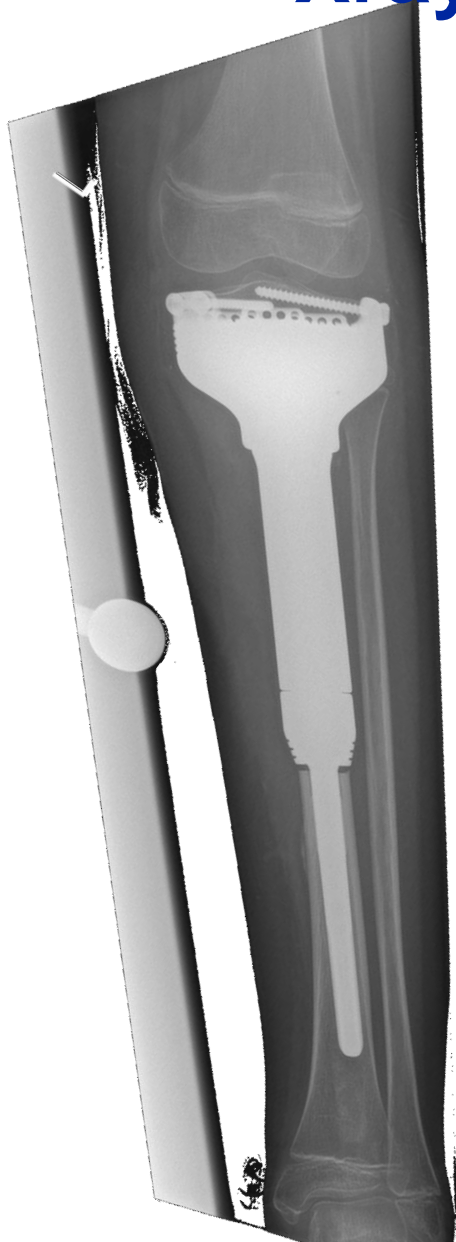
proximal leg; epiphysis sparing; grower postop Xrays



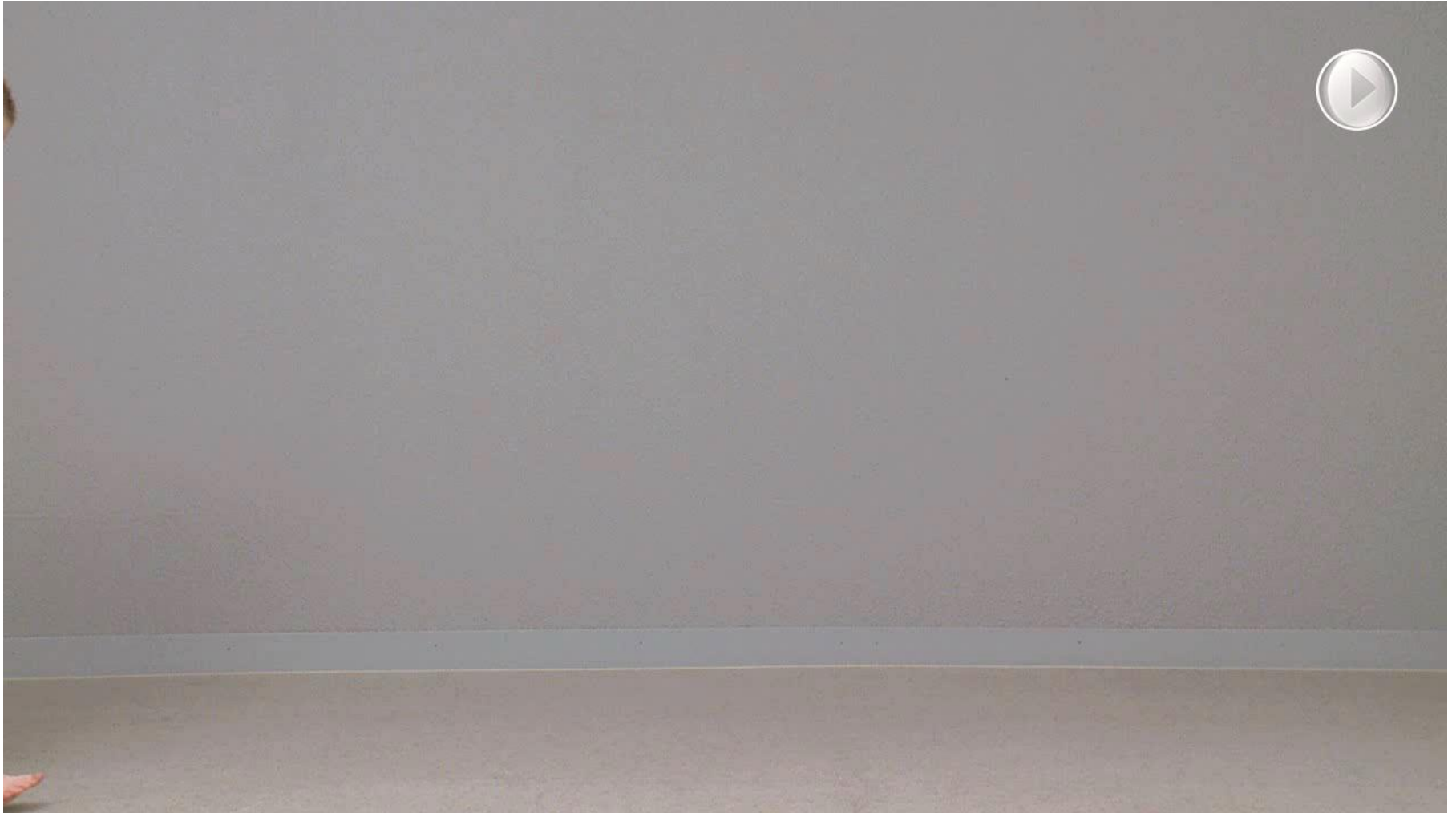
proximal leg; epiphysis sparing; grower Mar 30, 2011



proximal leg; epiphysis sparing; grower Xray, Apr 13, 2011

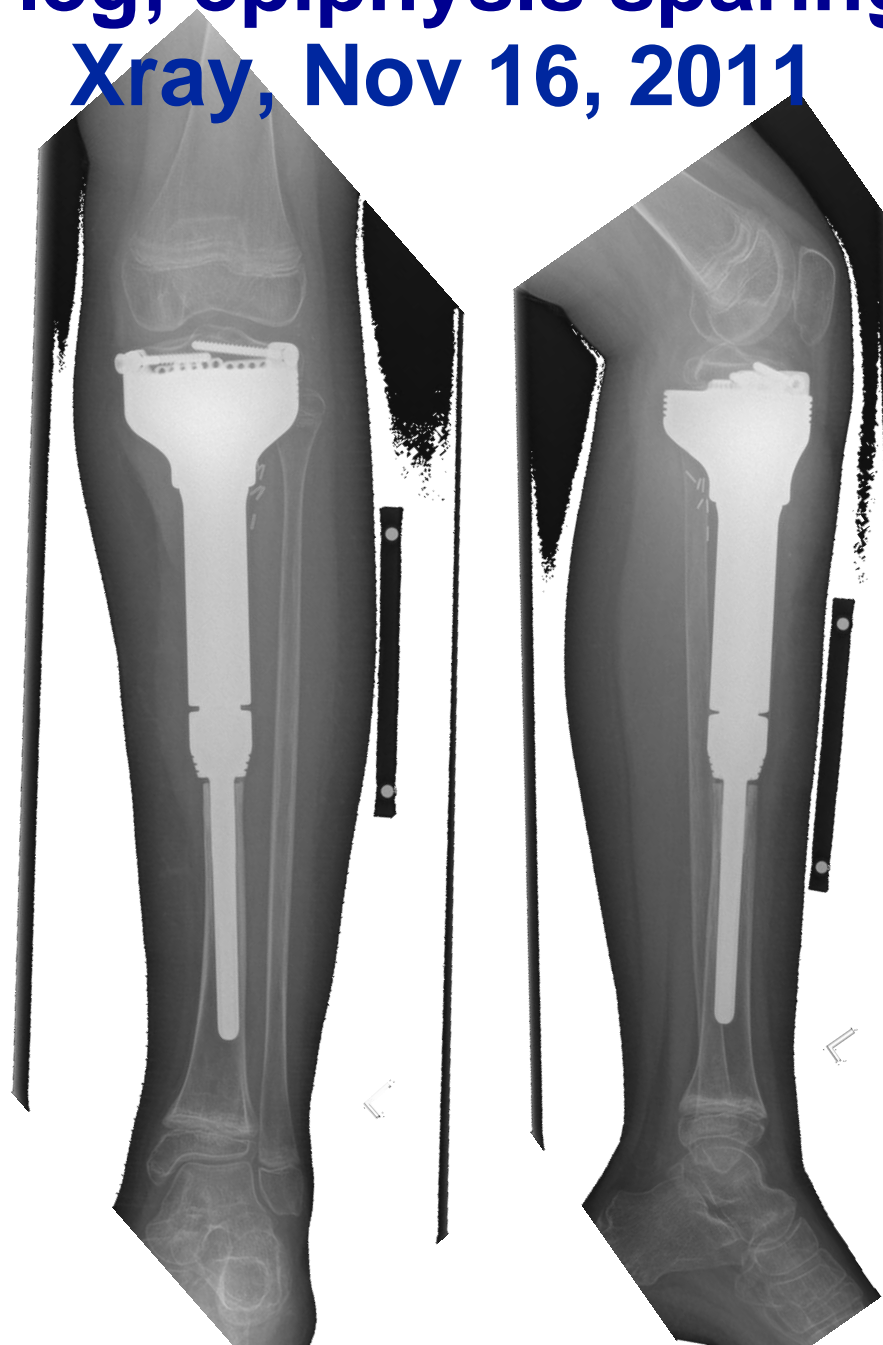


proximal leg; epiphysis sparing; grower Sep 28, 2011



6 months postop

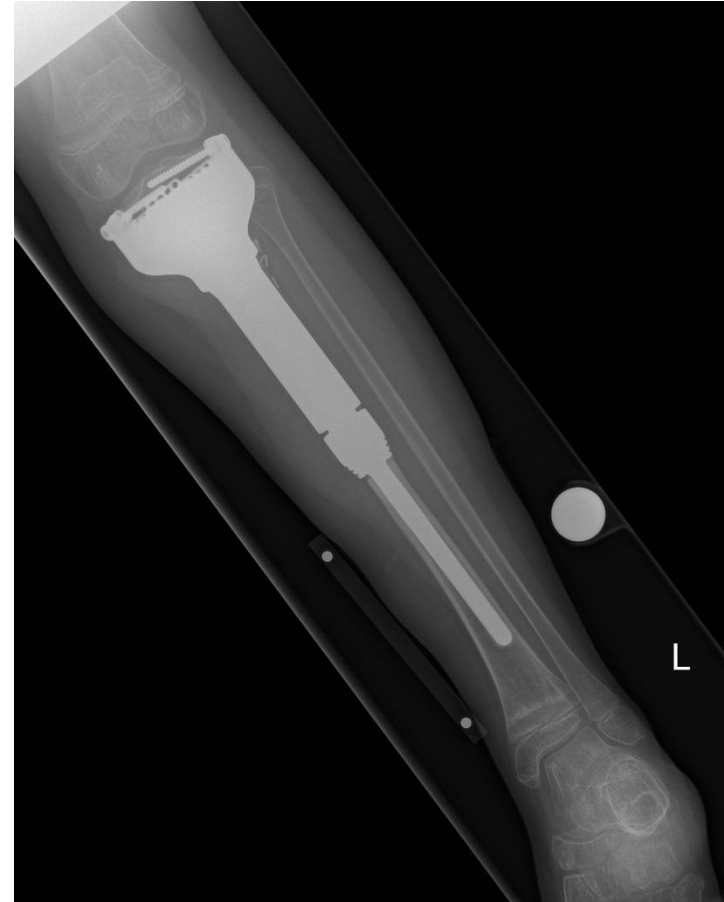
proximal leg; epiphysis sparing; grower
Xray, Nov 16, 2011



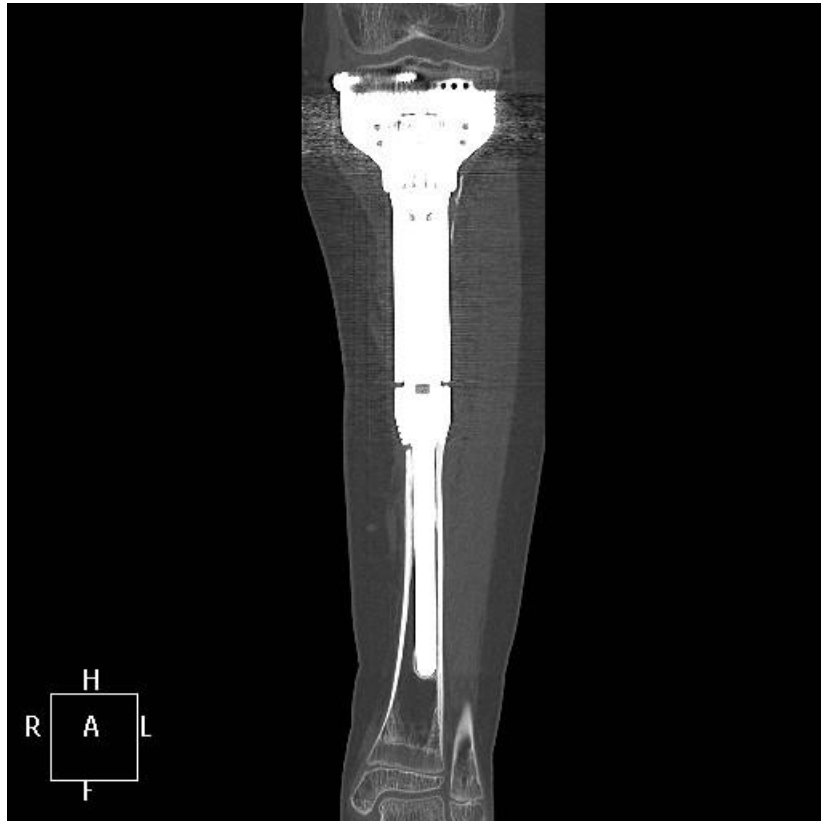
proximal leg; epiphysis sparing; grower Prosthesis extension, Nov 16, 2011



proximal leg; epiphysis sparing; grower Follow-up: x-ray: February 08, 2012



proximal leg; epiphysis sparing; grower Follow-up: CT March 08, 2012

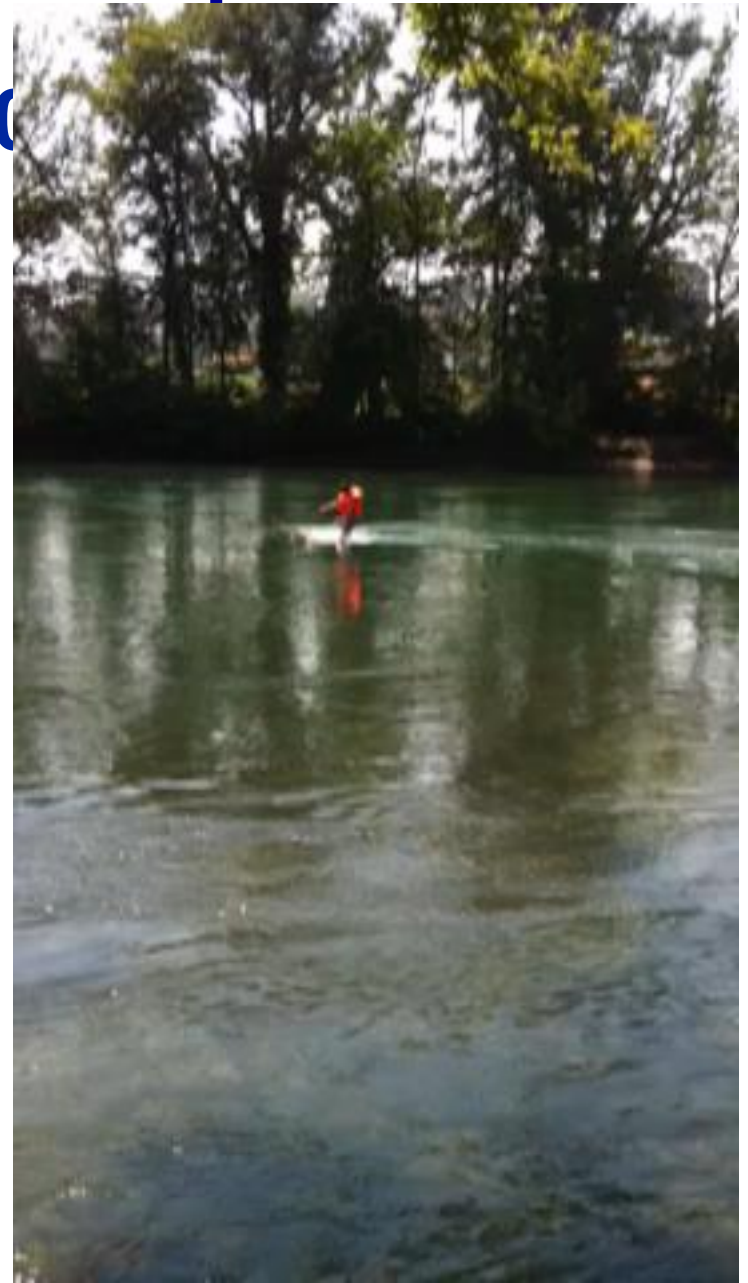


proximal leg; epiphysis sparing; grower April 18, 2012

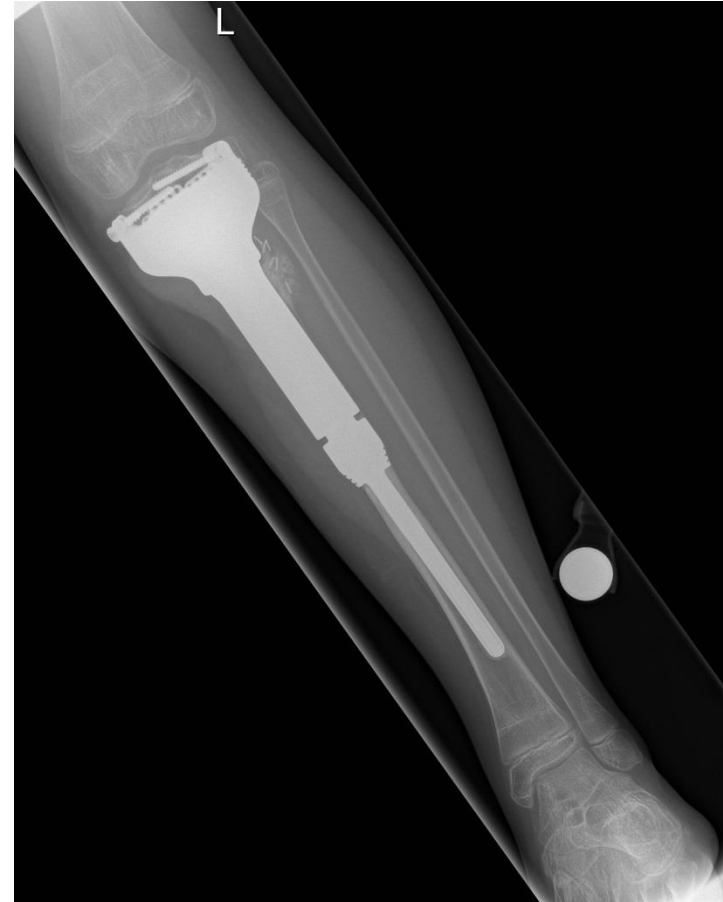
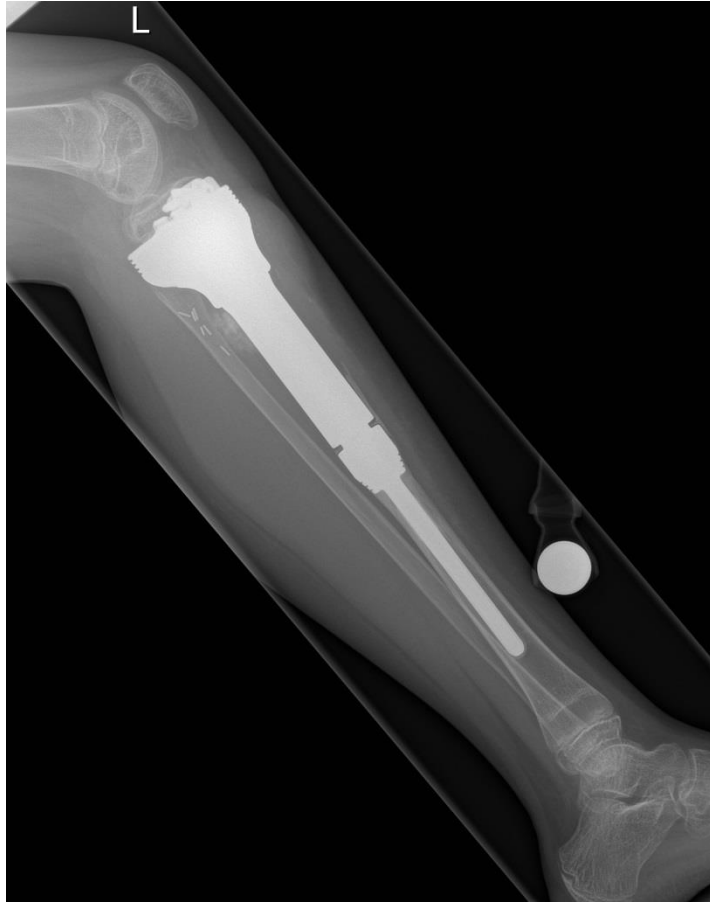


proximal leg; epiphysis

July 27, 20



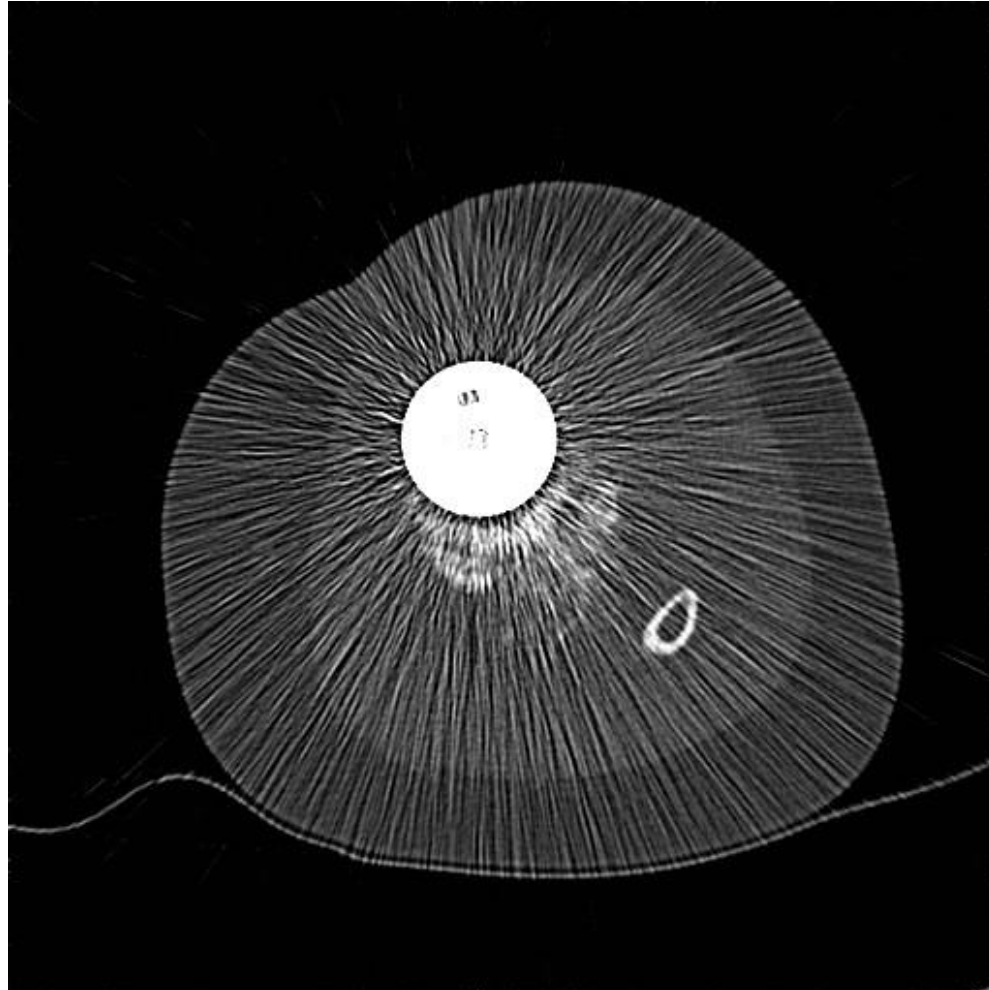
proximal leg; epiphysis sparing; grower Follow-up: July 5, 2012



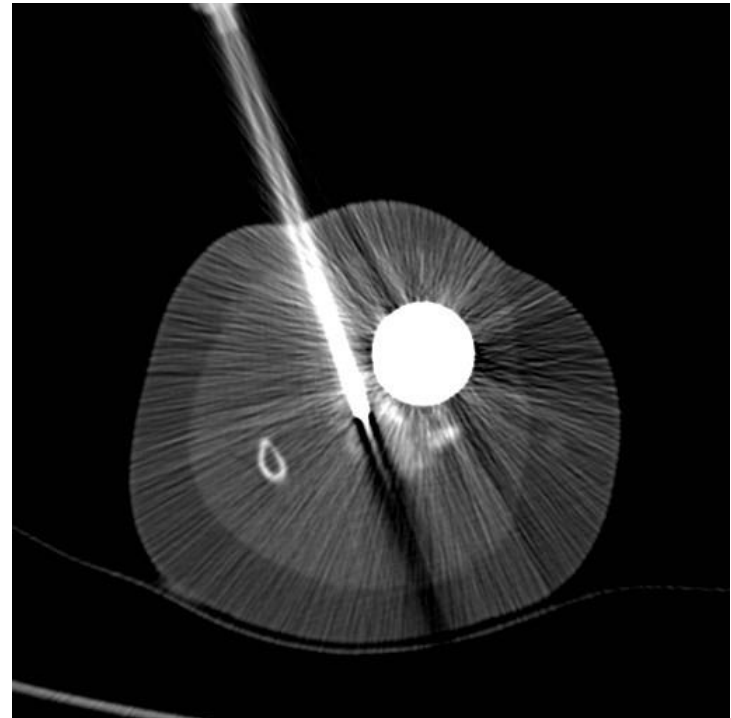
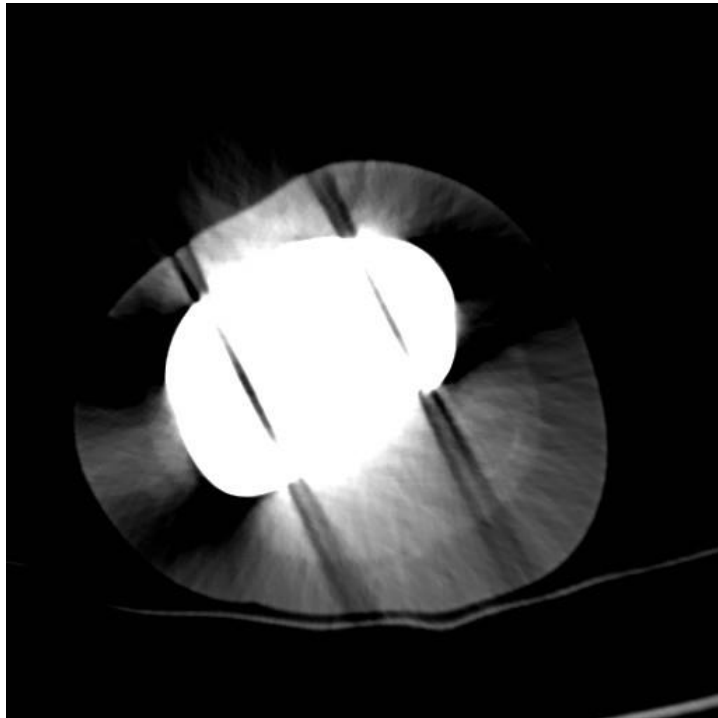
proximal leg; epiphysis sparing; grower CT left lower leg: Oct. 4, 2012



proximal leg; epiphysis sparing; grower
CT left lower leg: Oct. 4, 2012



proximal leg; epiphysis sparing; grower CT-guided biopsy: Oct 31, 2012



proximal leg; epiphysis sparing; grower

Result biopsy: Oct. 31, 2012

Klinische Angaben

Myositis ossificans. DD: Osteosarkom-Rezidiv.

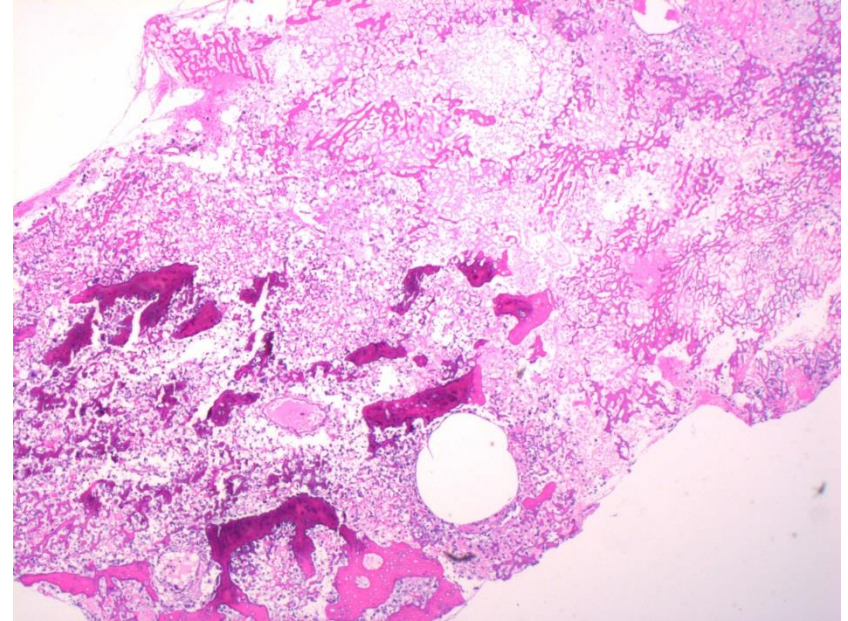
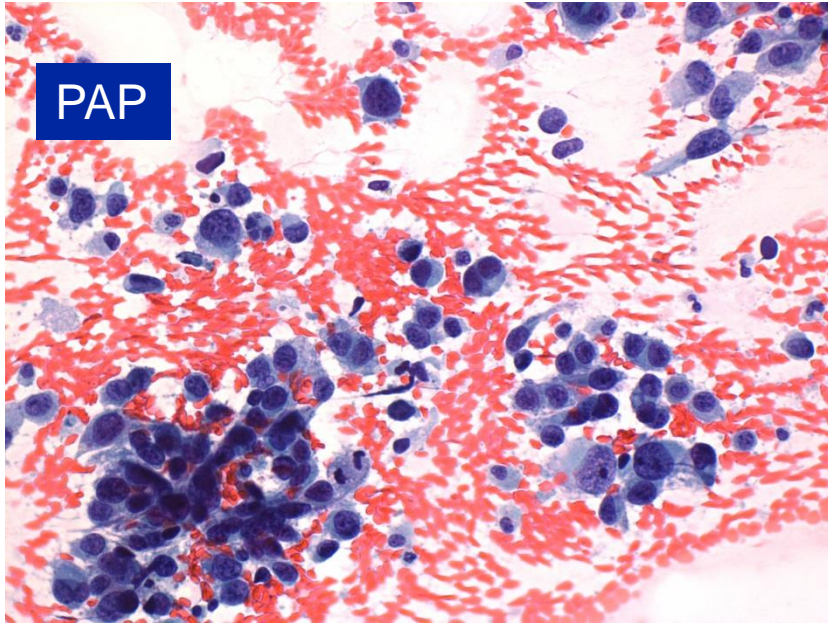
Angaben zur Probe

Paraossäre Ossifikation bei Status nach Osteosarkom-Op der Tibia links, Osteosarkom Tibia links
ED 12/10

Makroskopischer Befund

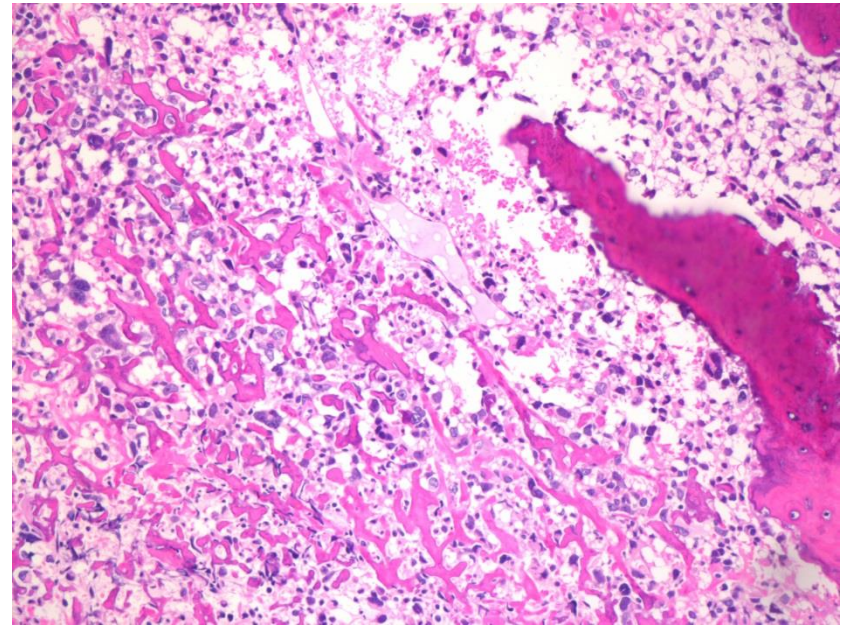
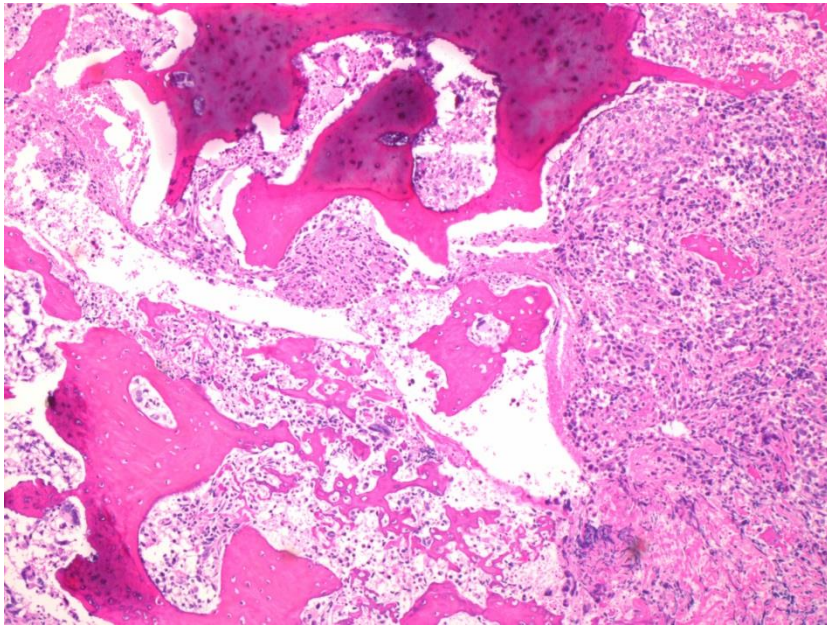
Knochenstanze, gelb-rot, 2,2 cm lang und 0,3 cm Durchmesser. Einseitig leicht fragmentiert mit Blutkoageln. Blutkoageln mit 0,8 x 0,5 x 0,5 cm. Zytoabklatsch angefertigt. Auf 2 Kapseln verteilt. Alles eingebettet. VOGAL/sre

proximal leg; epiphysis sparing; grower Result biopsy: Oct. 31, 2012

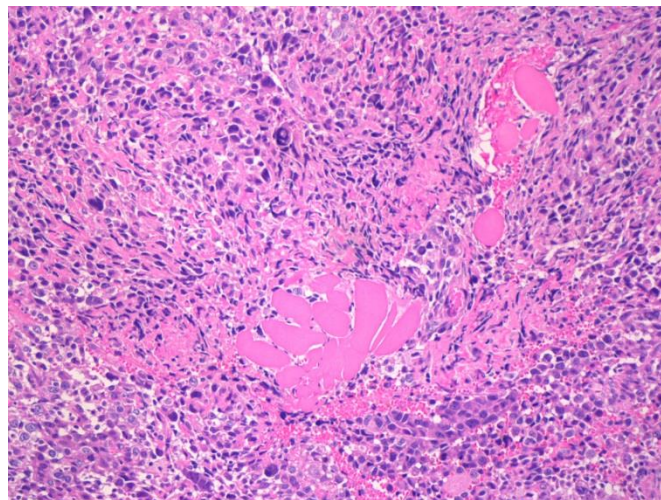
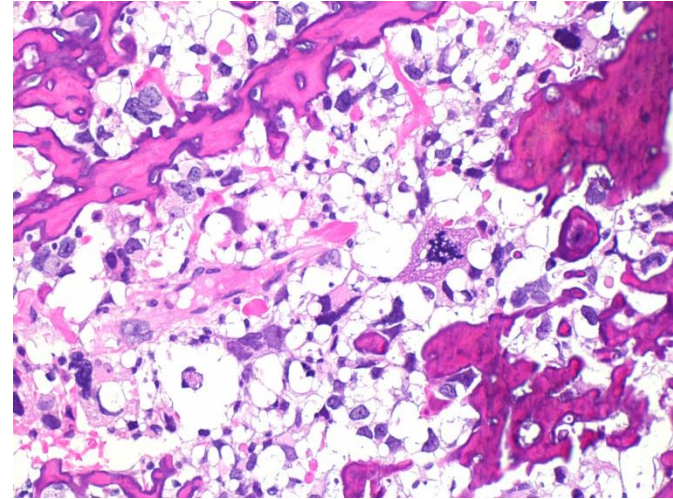
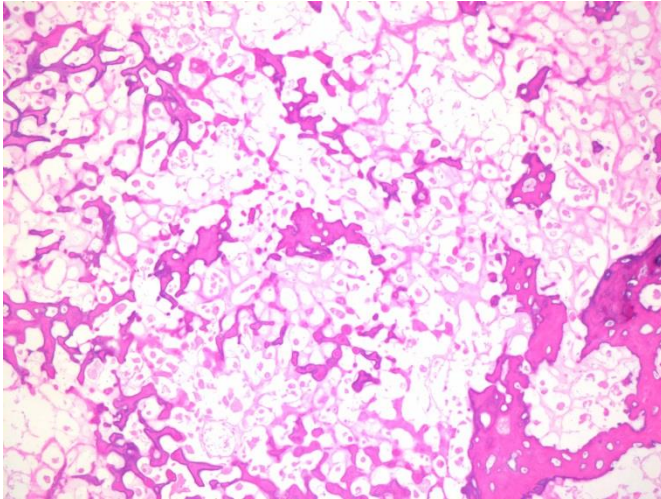


proximal leg; epiphysis sparing; grower

Result biopsy: Oct. 31, 2012



proximal leg; epiphysis sparing; grower Result biopsy: Oct. 31, 2012



proximal leg; epiphysis sparing; grower Result biopsy: Oct. 31, 2012

Diagnose

Anteile eines partiell nekrotischen, high grade, überwiegend osteoblastischen Osteosarkoms (Tibia links; vgl. Kommentar).

Kommentar

Histologisch findet sich zweifelsohne malignes Tumorgewebe eines hochgradig malignen osteoblastischen Osteosarkoms. Die Biopsie besteht hauptsächlich aus Tumorgewebe mit nur spärlich erfassten nekrotischen Fasern der Skelettmuskulatur und lamellären reifen Knochengewebe.

proximal leg; epiphysis sparing; grower

Discussion: October 2012

- Tumor recurrence → Above knee amputation recommended
- Patient's family preferred „alternative“ treatment („Hypervitaminosis“, „Healer“,...)

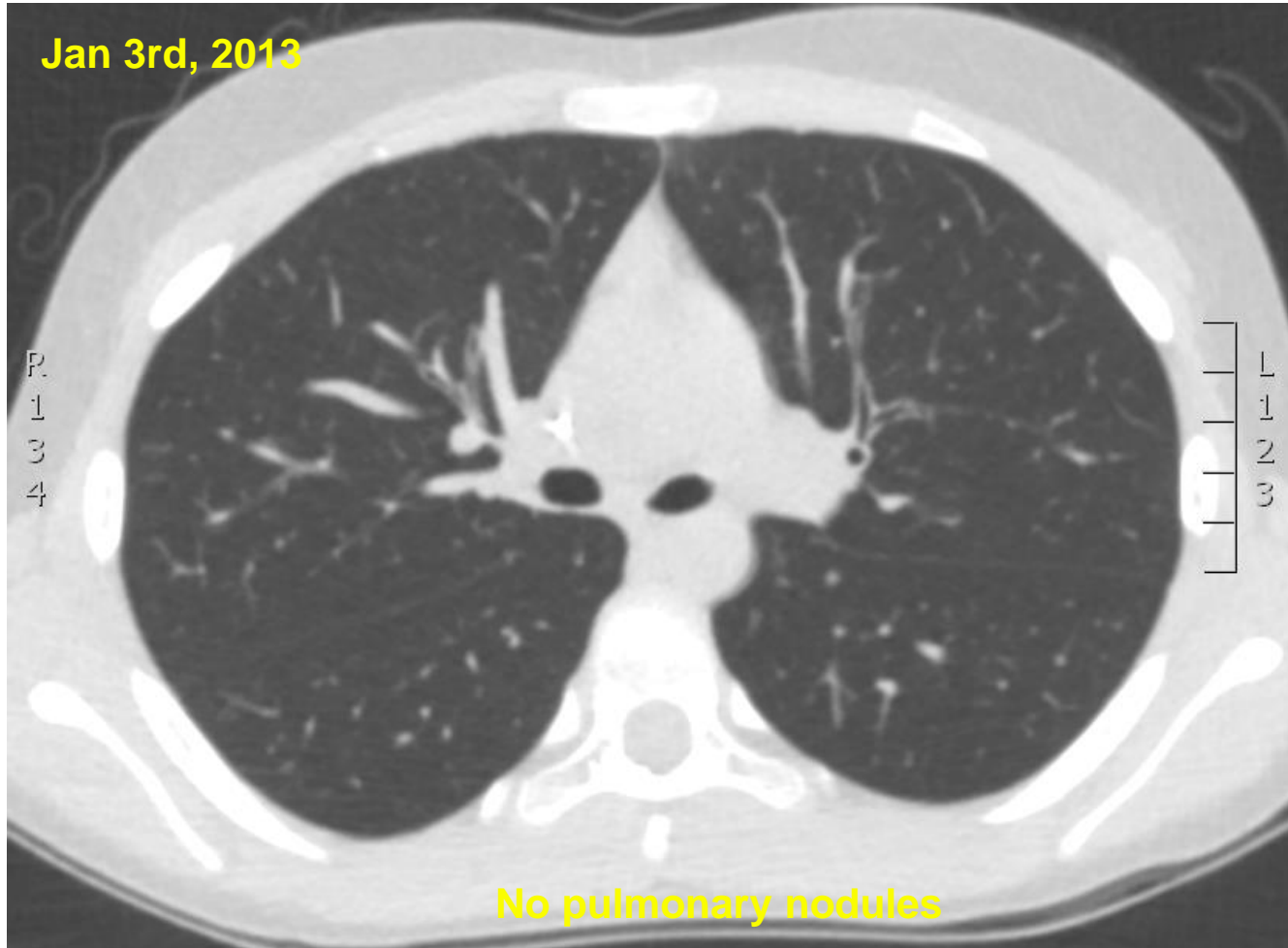
proximal leg; epiphysis sparing; grower
Follow- up: January 17, 2013



proximal leg; epiphysis sparing; grower Follow- up: January 17, 2013



proximal leg; epiphysis sparing; grower Follow- up: January 17, 2013



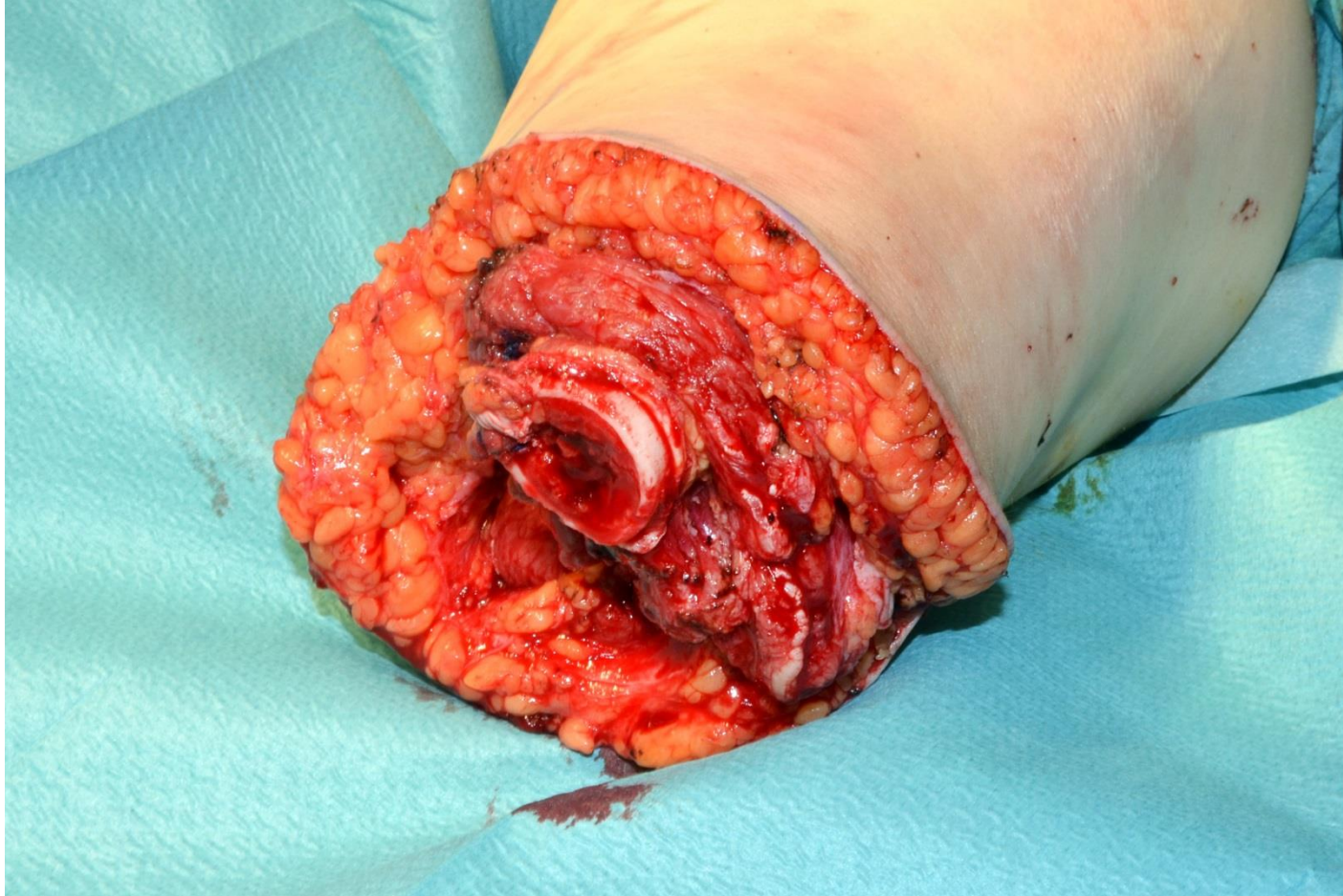
proximal leg; epiphysis sparing; grower Surgery: January 29, 2013



**proximal leg; epiphysis sparing; grower
Surgery: January 29, 2013**

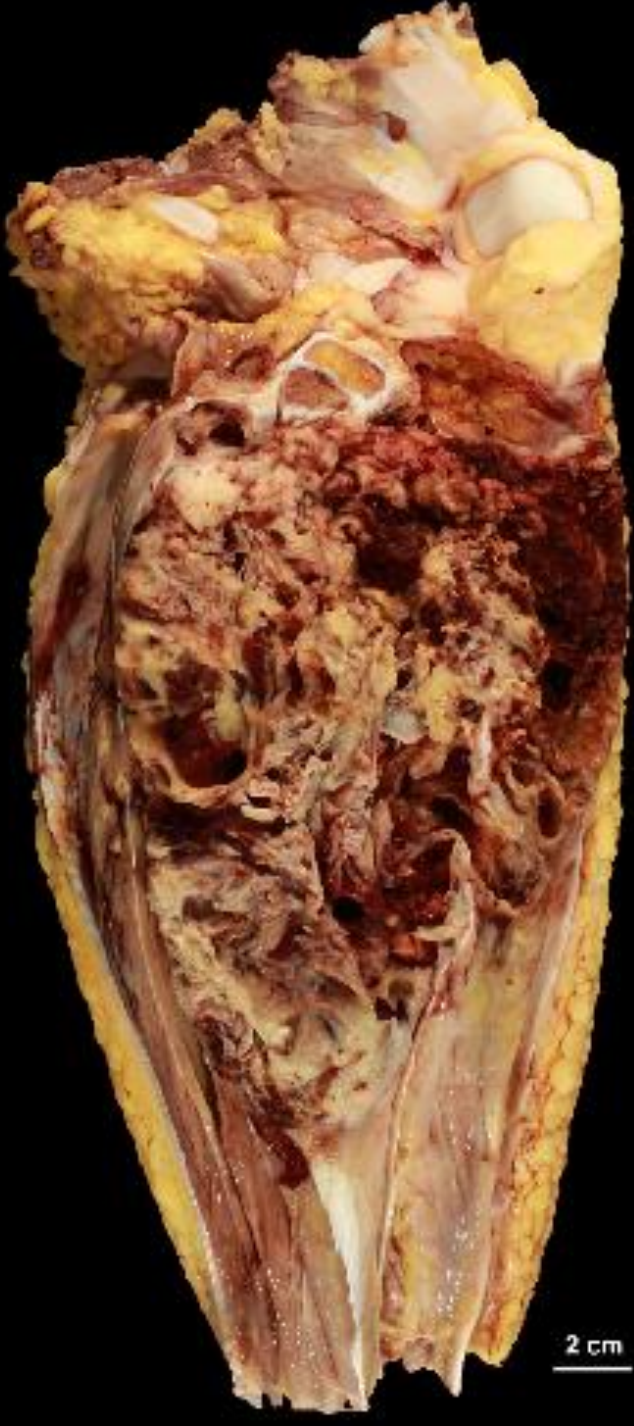
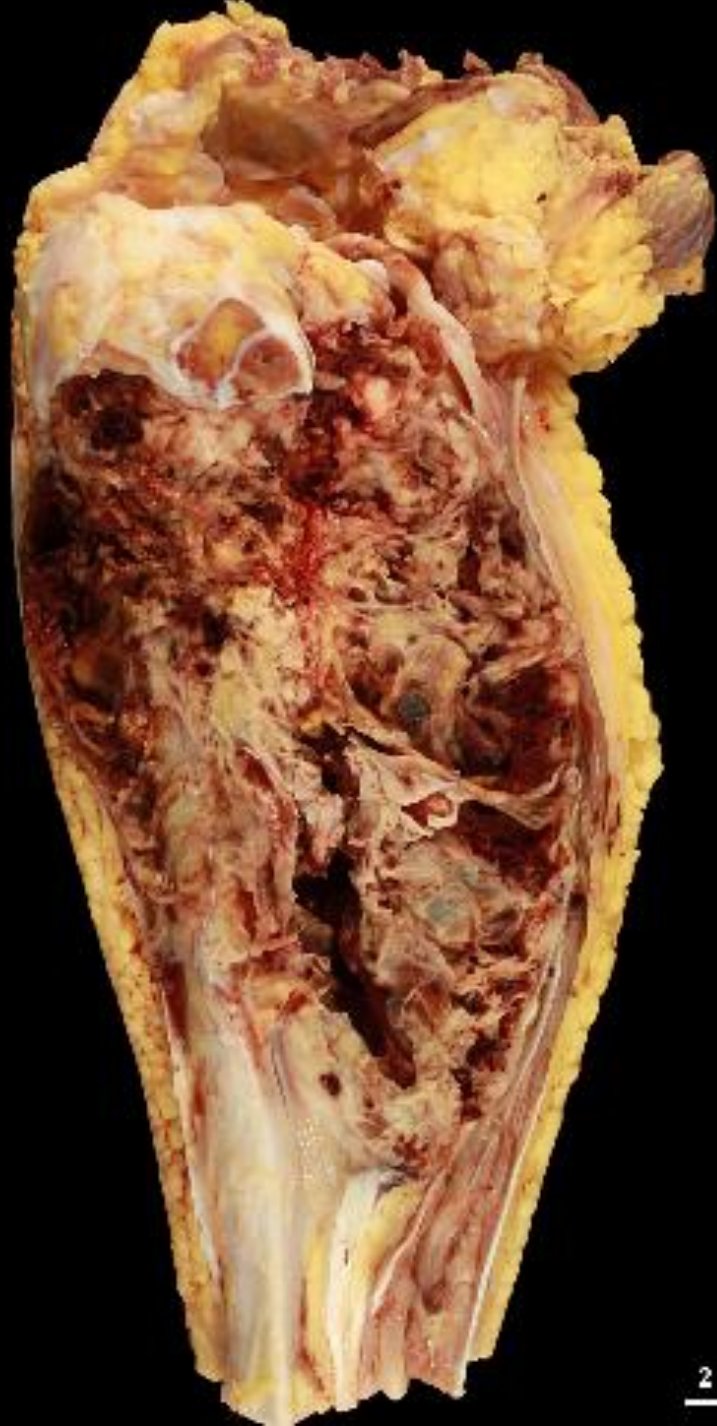


proximal leg; epiphysis sparing; grower
Surgery: January 29, 2013



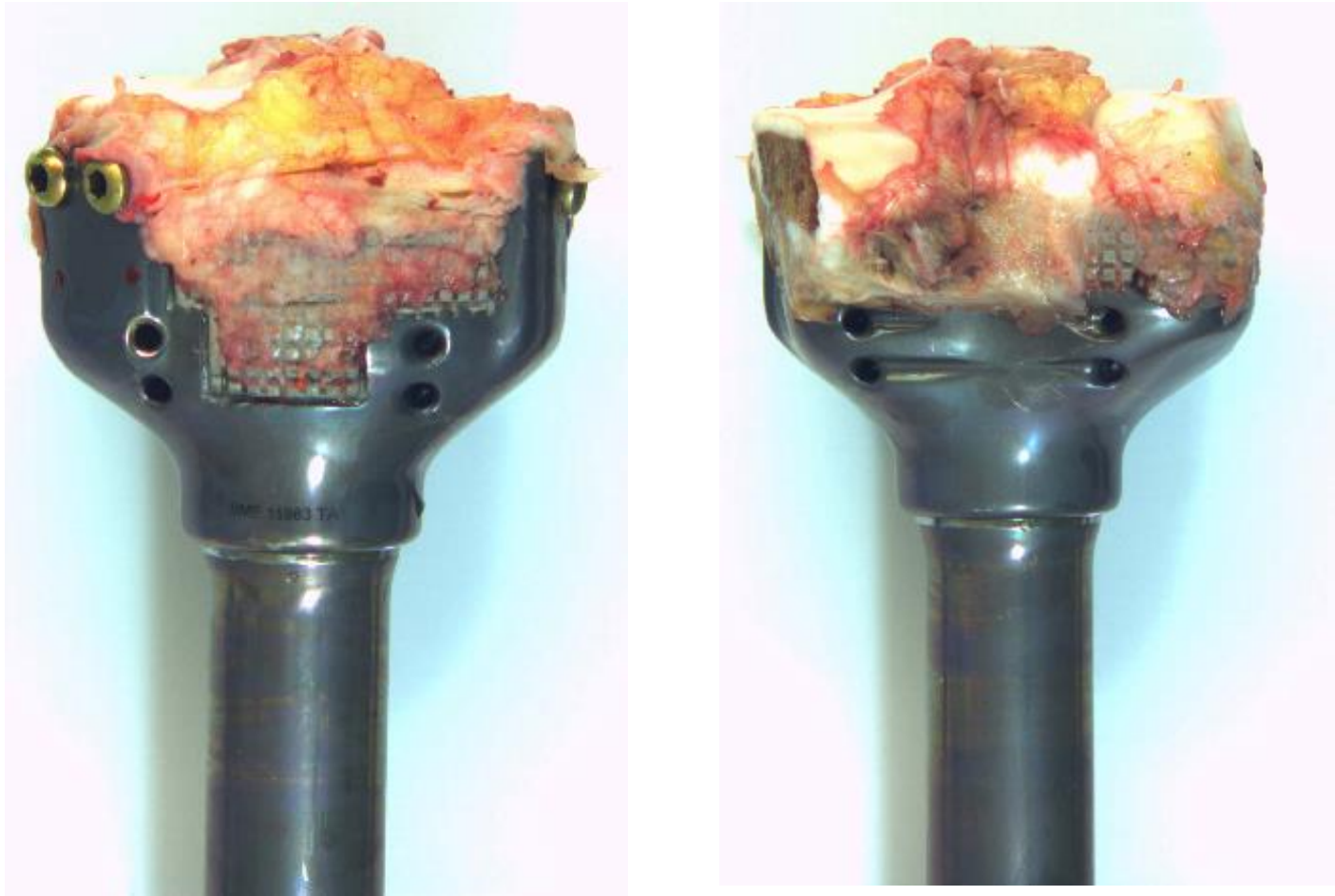
h

wer





proximal leg; epiphysis sparing; grower Surgery: January 29, 2013



proximal leg; epiphysis sparing; grower Sarcoma- Board: February 07, 2013

Therapeutic decisions:

Radiotherapy:

No

Chemotherapy:

No, the family and the patient will not do any further chemotherapy

Surgery:

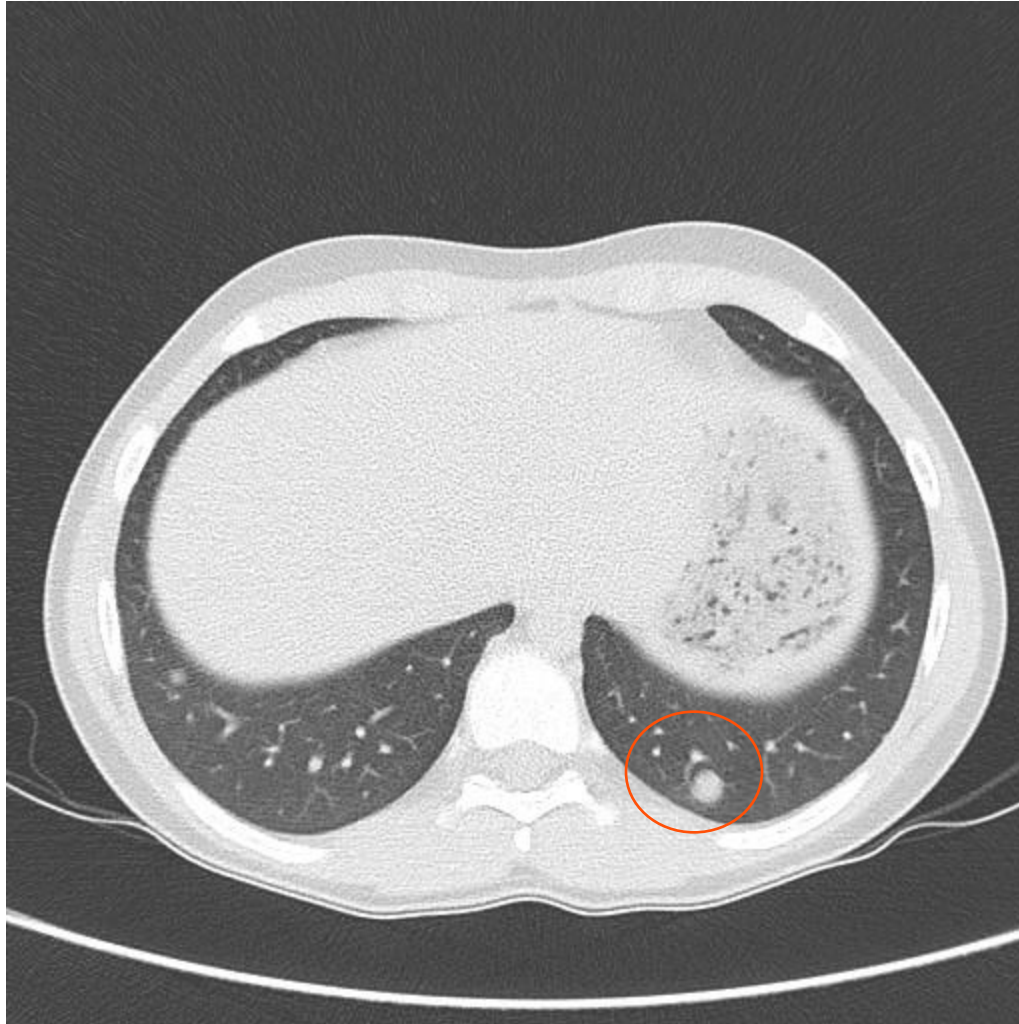
currently no further indication

proximal leg; epiphysis sparing; grower May 26, 2013



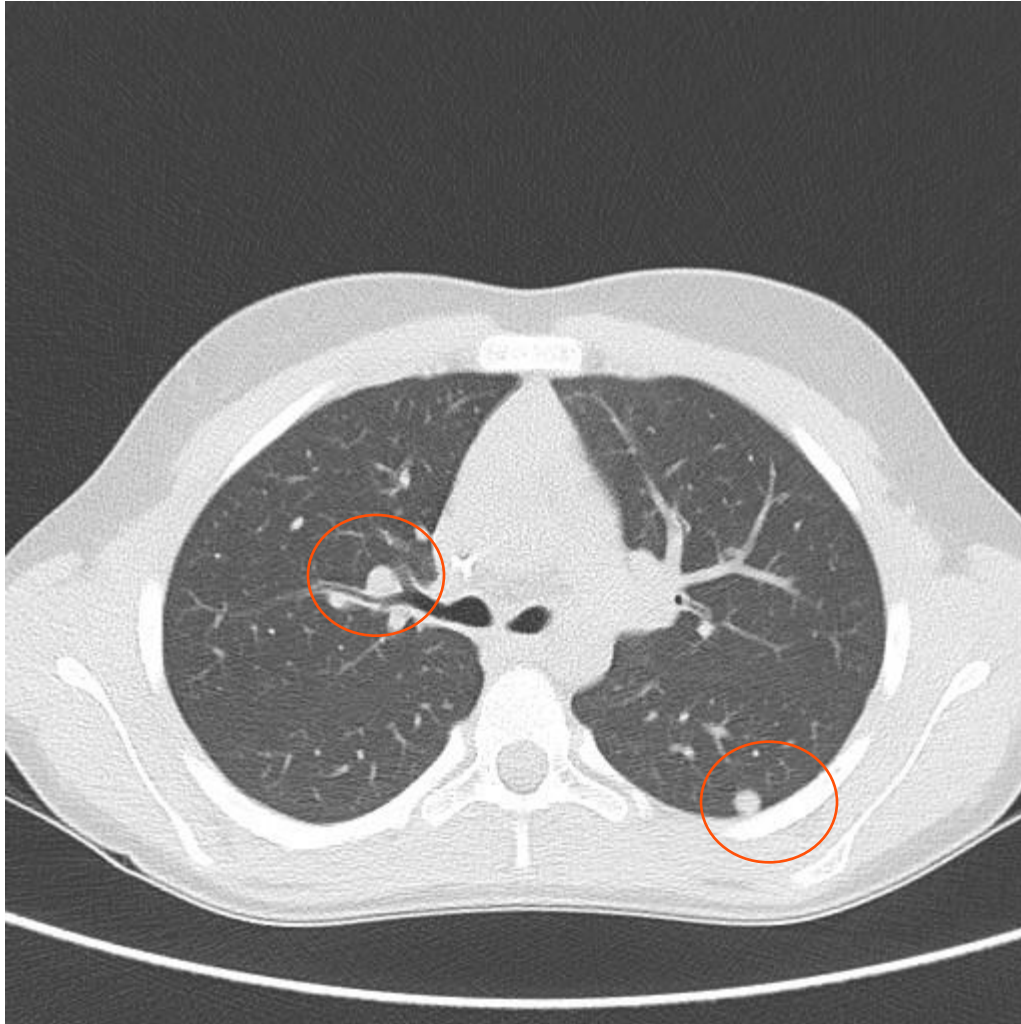
proximal leg; epiphysis sparing; grower

Follow-up: CT-chest: June 19, 2013



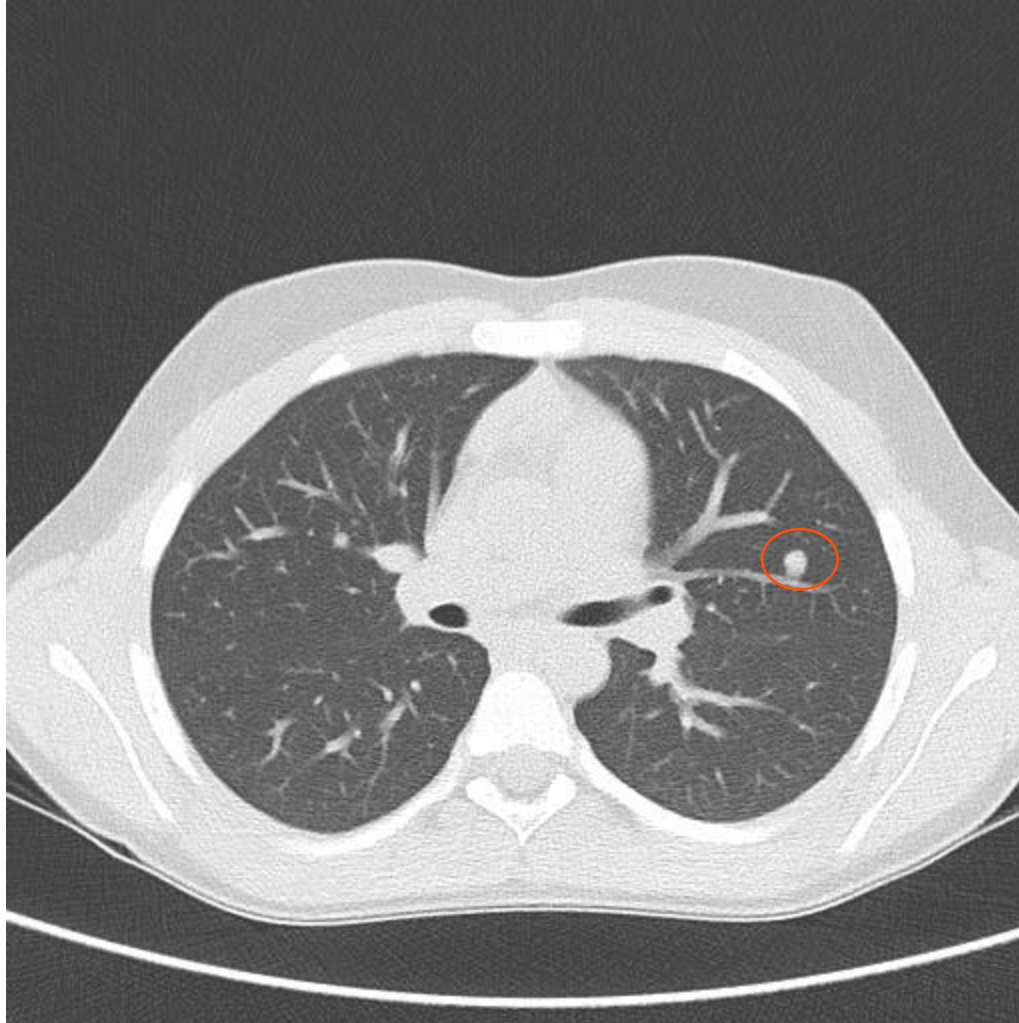
multiple lung metastases: bilaterally

proximal leg; epiphysis sparing; grower Follow-UP: CT-chest: June 19, 2013



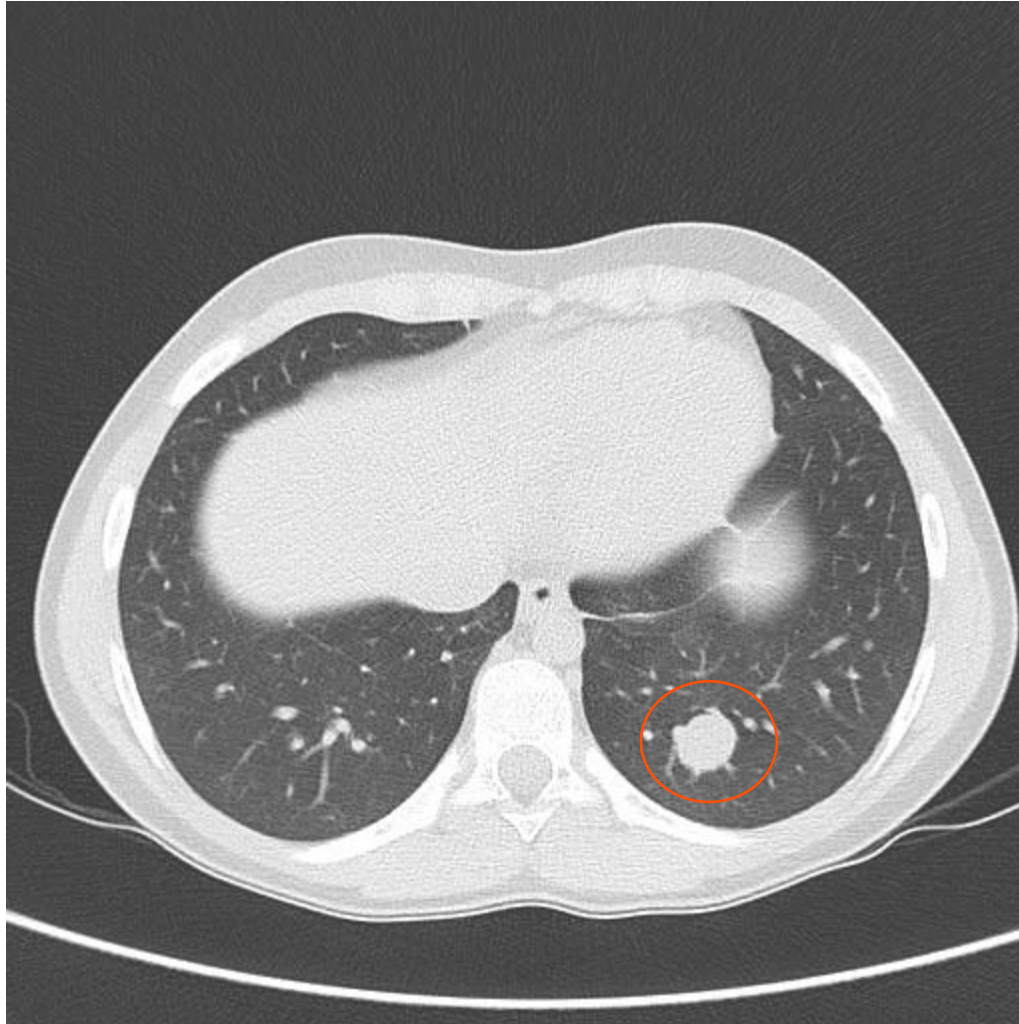
multiple lung metastases: bilaterally

proximal leg; epiphysis sparing; grower Follow-UP: CT-chest: June 19, 2013



multiple lung metastases: bilaterally

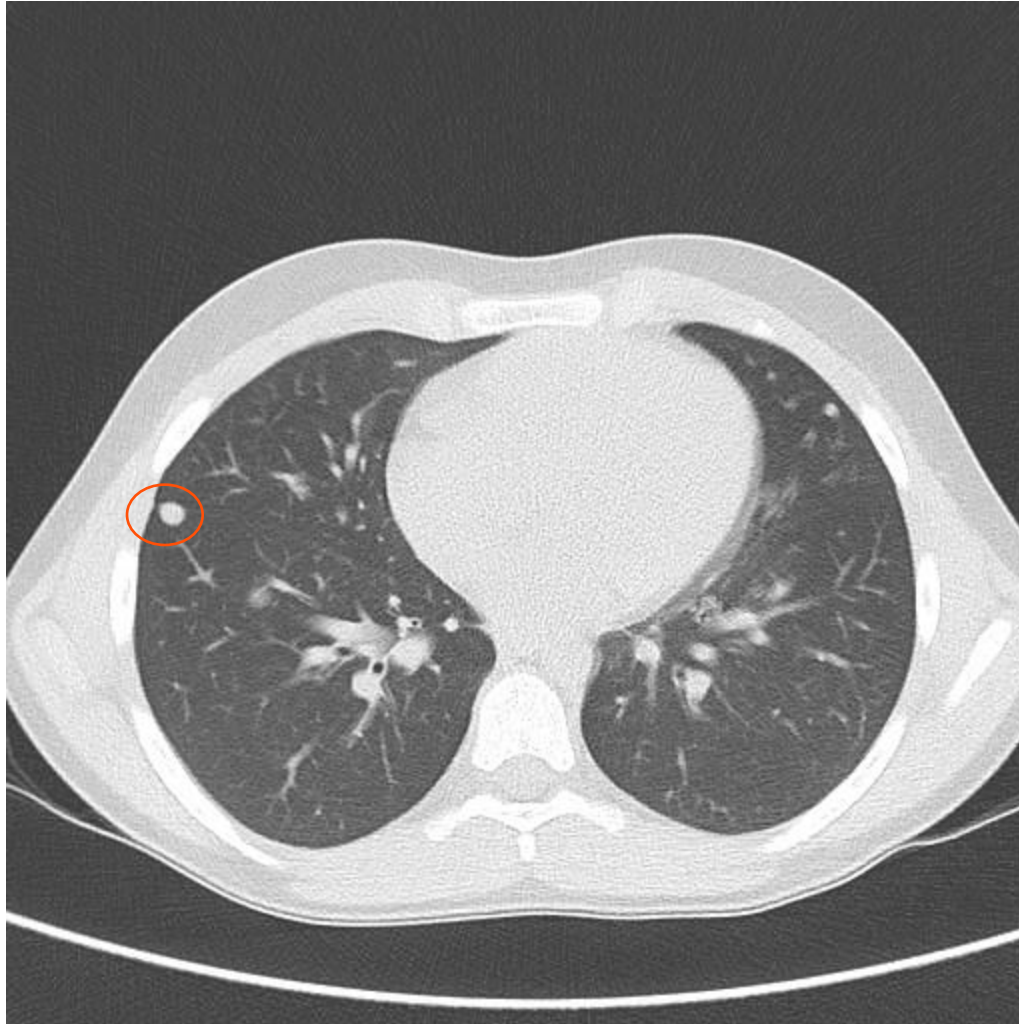
proximal leg; epiphysis sparing; grower Follow-UP: CT-chest: June 19, 2013



multiple lung metastases: bilaterally

proximal leg; epiphysis sparing; grower

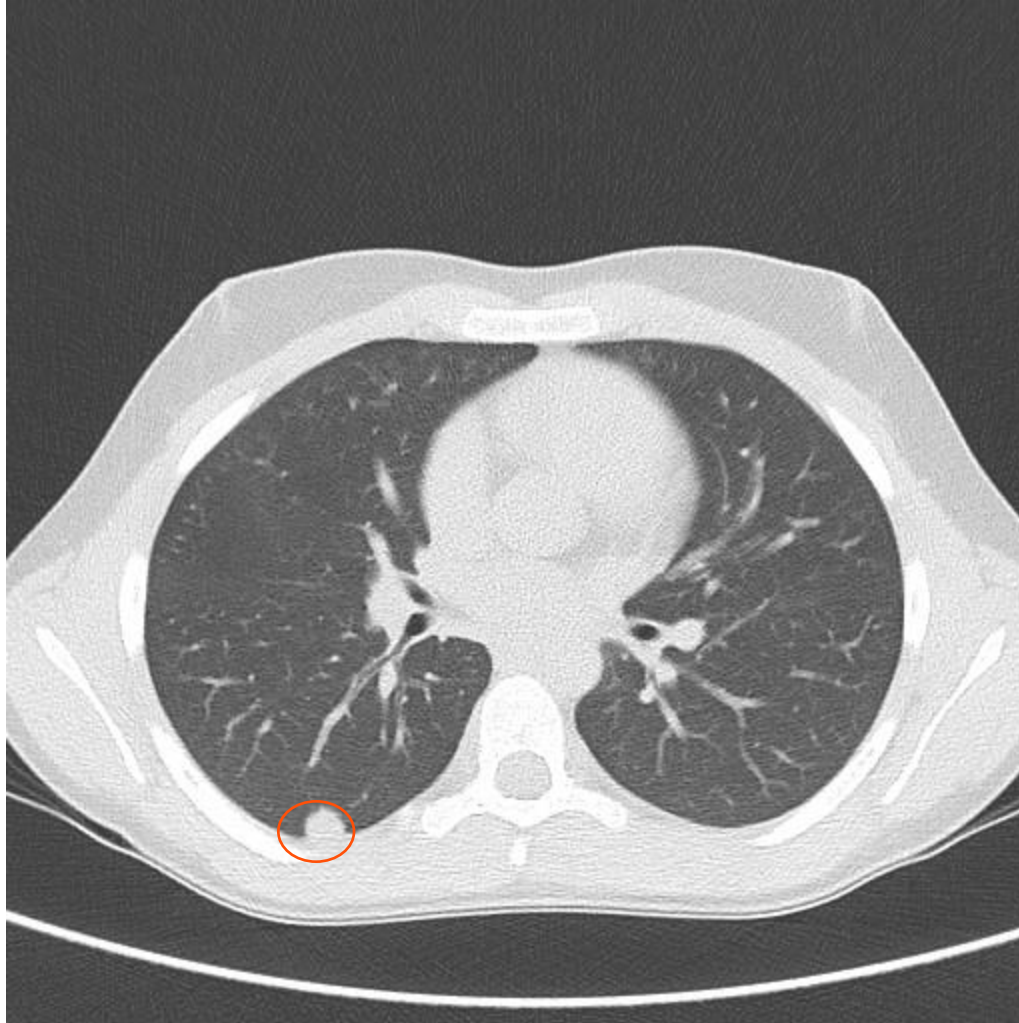
Follow-UP: CT-chest: June 19, 2013



multiple lung metastases: bilaterally

proximal leg; epiphysis sparing; grower

Follow-UP: CT-chest: June 19, 2013



multiple lung metastases: bilaterally

proximal leg; epiphysis sparing; grower Follow-UP: CT-chest: June 19, 2013

multiple lung metastases bilaterally



proximal leg; epiphysis sparing; grower Follow-UP: CT-chest: June 19, 2013

multiple lung metastases bilaterally

