proximal fibula; complex reconstruction

Hauptdiagnose
Osteosarkom high grade Fibulaköpfchen rechts
- St.n. Stanzbiopsie vom 14.03.2018 (KSSG B2018.19336/ B2018.19191), fecit Dr. Lenknick und Dr. Klima, Ostschweizer Kinderspital

Nebendiagnosen
keine erfasst

Anamnese
Präsentation am Tumorboard

ECOG Performance Status: 1

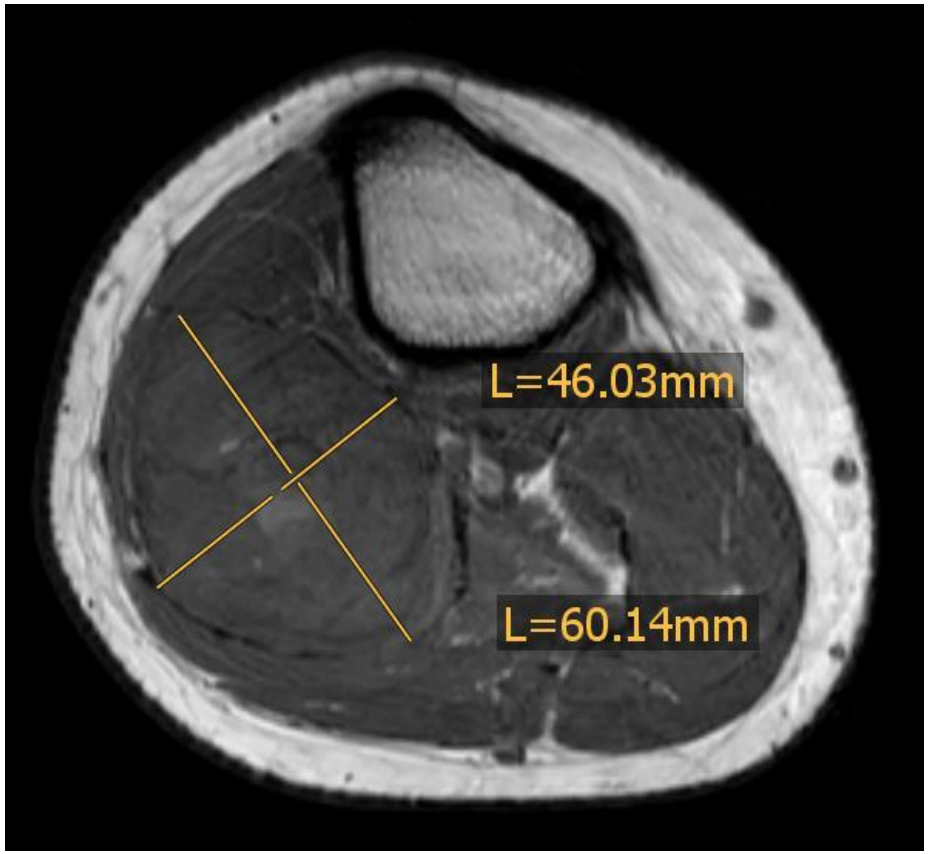
Für das Tumorboard relevante Befunde
Patient des Ostschweizer Kinderpitals, Präsentation der Radiologie durch KSW

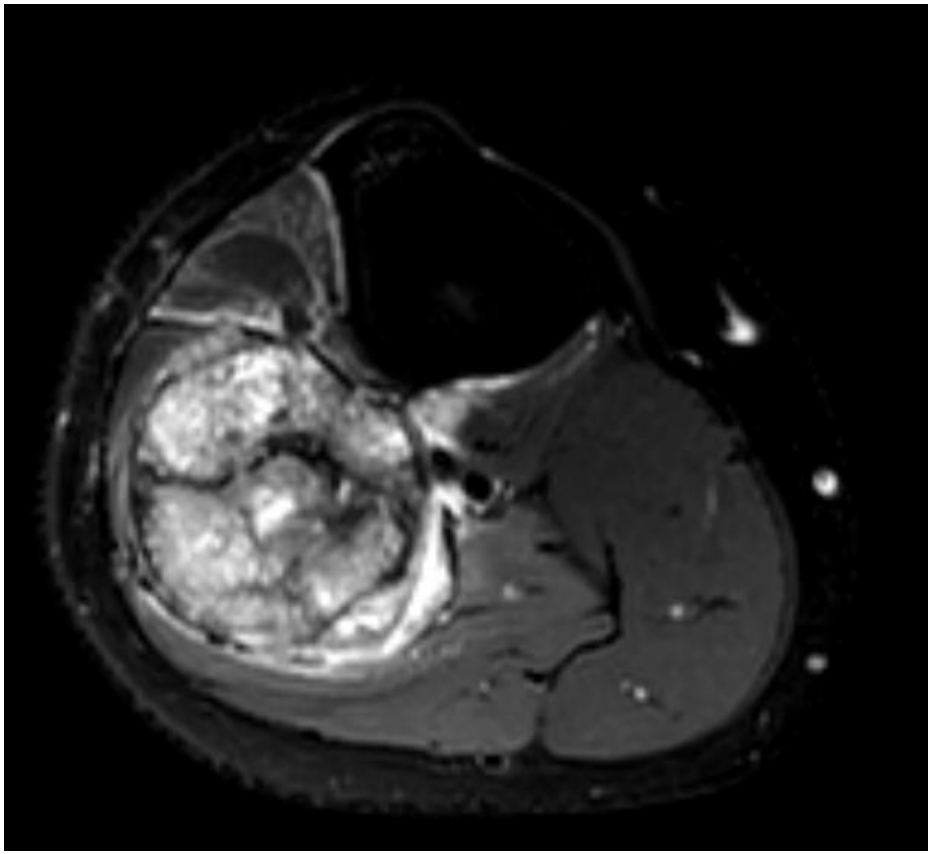
Histologie vom 14.03.2018 (KSSG B2018.19191):
Zellreiche pleomorphe Neoplasie mit Osteoidbildung und immer wieder eingestreuten mehrkernigen Osteoklasten- artigen Zellelementen, Tumorzellen mit stärkergradiger Kernpleomorphie. Durchschnittlich ein bis zwei Mitosefiguren pro HPF/ Gesichtsfeld 0.6mm und fokal bis zu fünf Mitosen pro HPF. Kleinherdige Nekroseareale (10%).

proximal fibula; complex reconstruction

March 06, 2018

proximal fibula; complex reconstruction

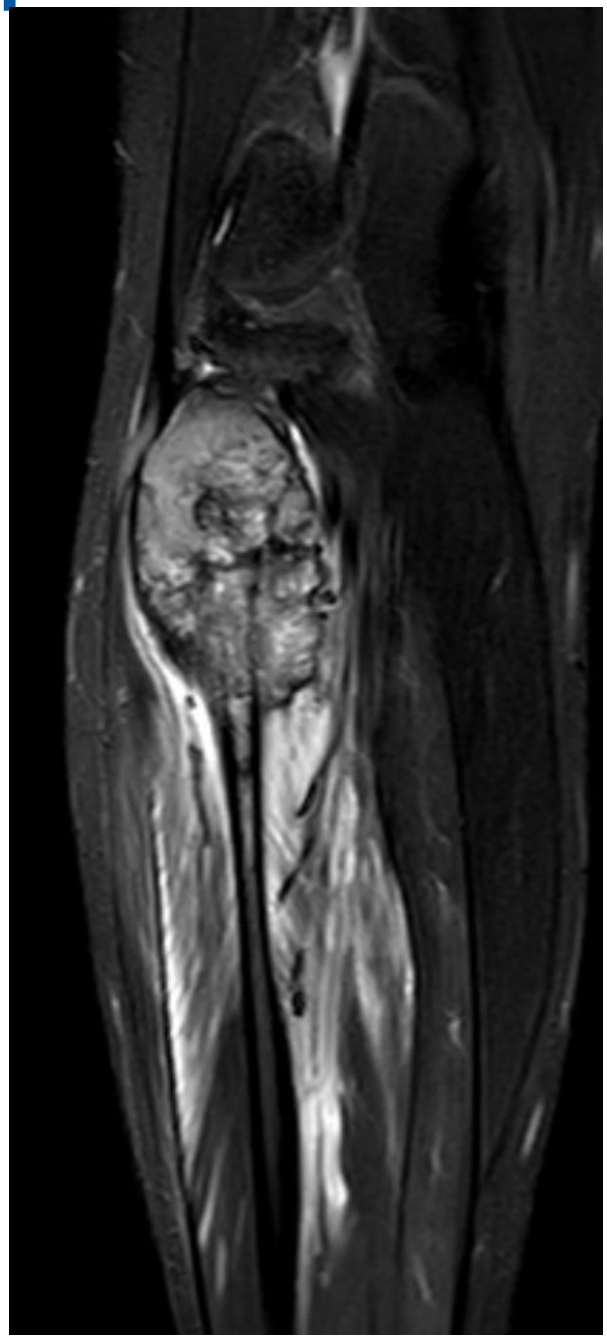




March 06, 2018

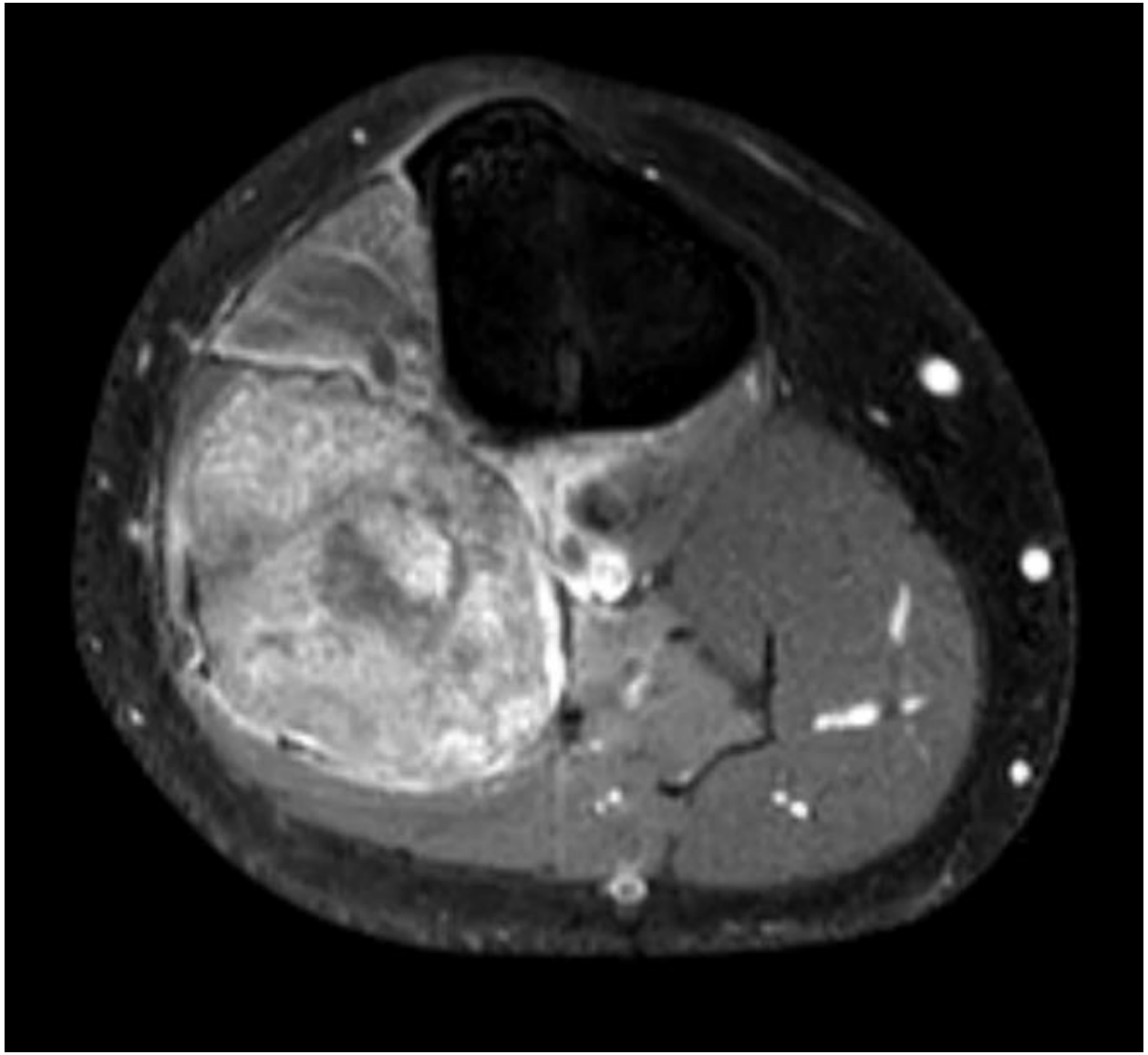
SarcOmaSurgery

proximal fibula; complex reconstruction



March 06, 2018

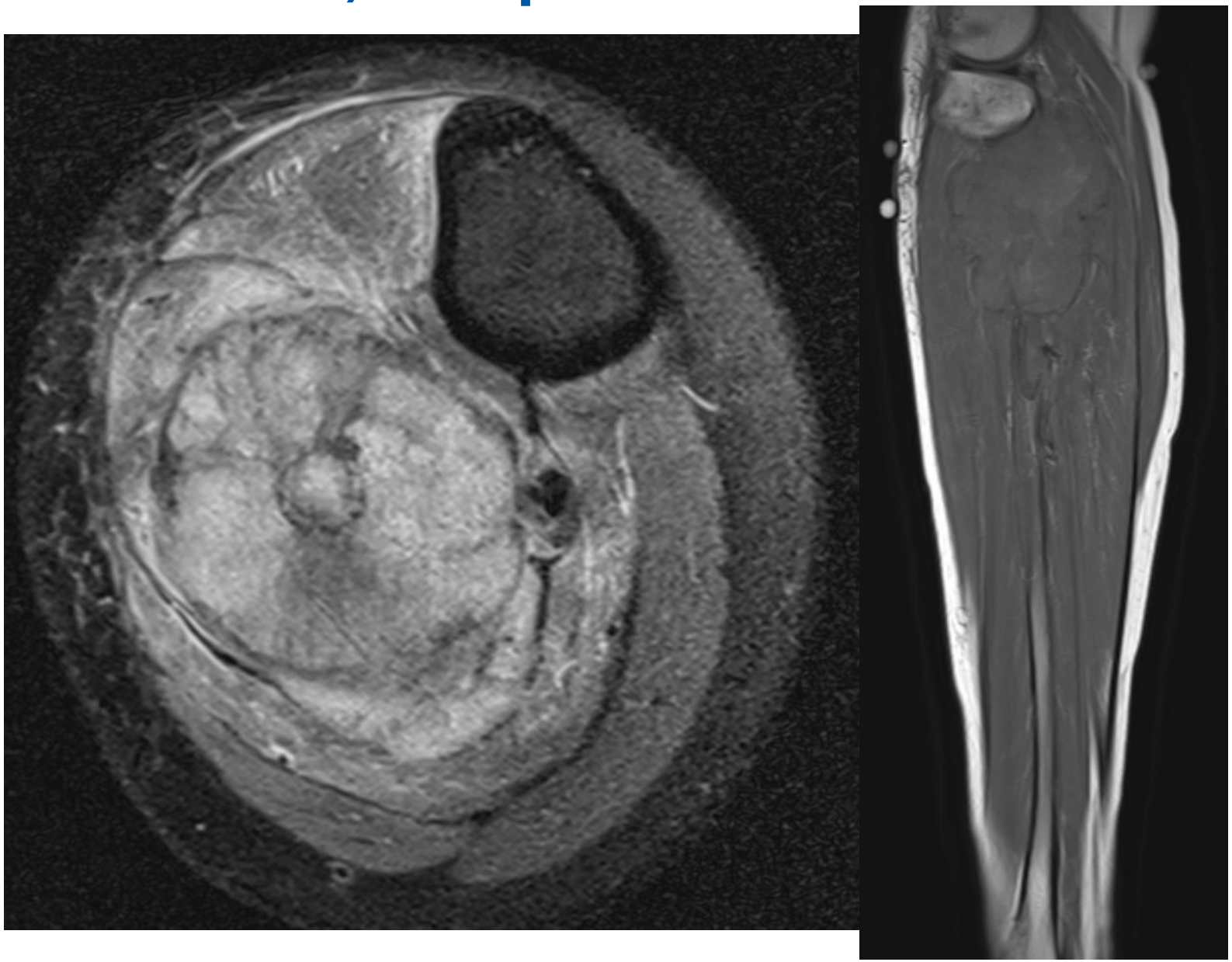
proximal fibula; complex reconstruction



March 06, 2018

SarcomaSurgery

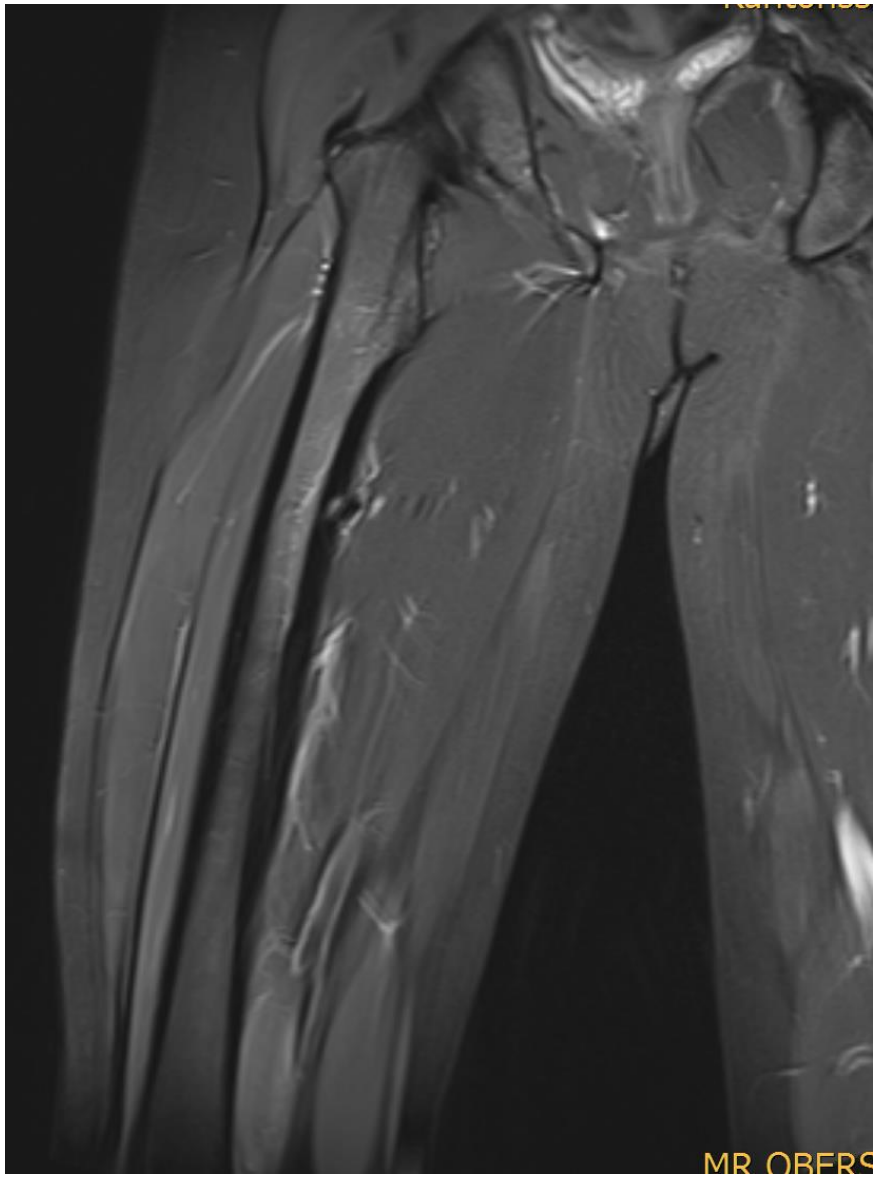
proximal fibula; complex reconstruction



April 06, 2018

SarcOmaSurgery

proximal fibula; complex reconstruction



April 06, 2018

SarcomaSurgery

proximal fibula; complex reconstruction

Biopsy KOS-SG

March 14, 2018

SarcOmaSurgery

proximal fibula; complex reconstruction

March 14, 2018

SarcomaSurgery

proximal fibula; complex reconstruction

March 30, 2018

SarcOmaSurgery

proximal fibula; complex reconstruction

preop chemotherapy from
April to May 2018
KOS-SG

March 30, 2018

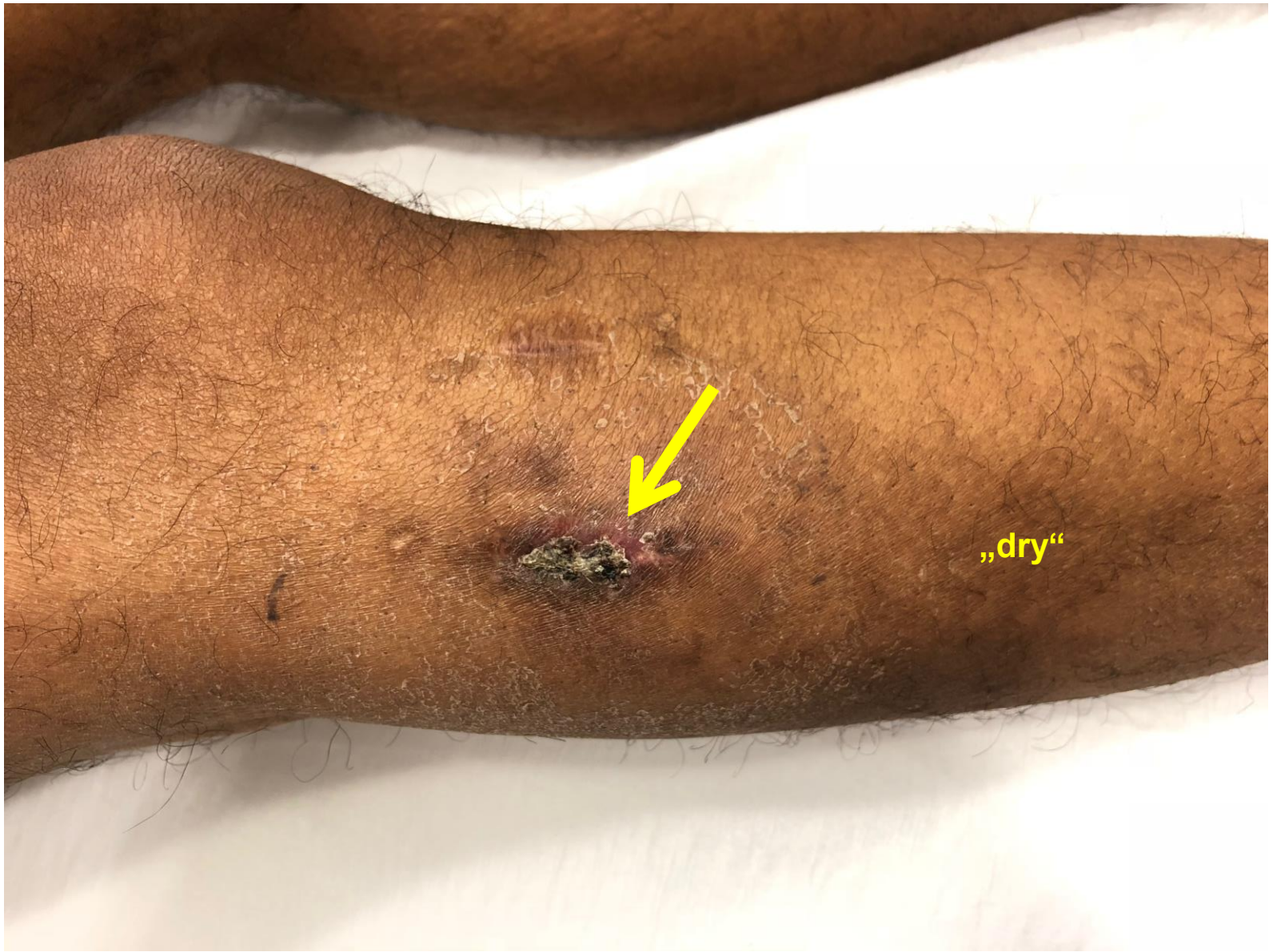
SarcomaSurgery

proximal fibula; complex reconstruction

May 15, 2018

SarcomaSurgery

proximal fibula; complex reconstruction



May 15, 2018

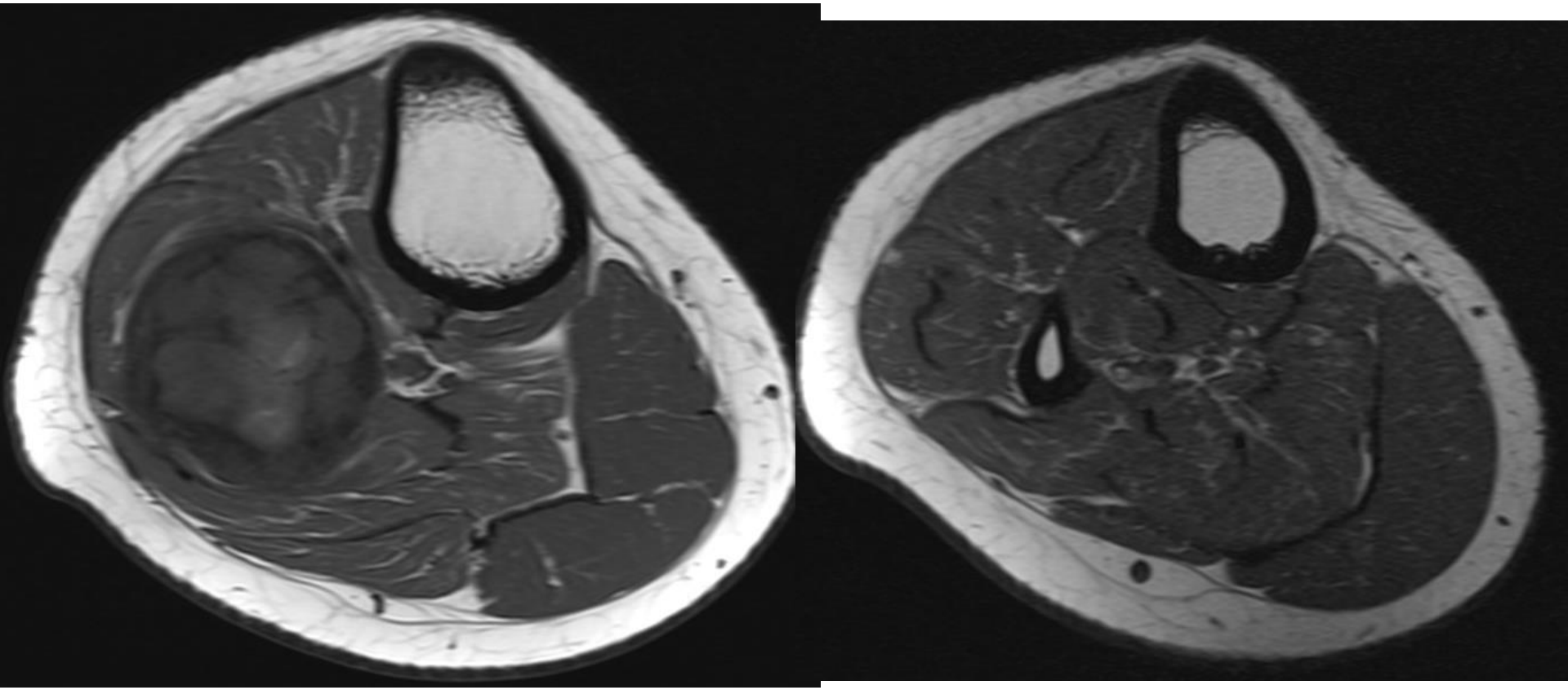
SarcOmaSurgery

proximal fibula; complex reconstruction

May 15, 2018

SarcomaSurgery

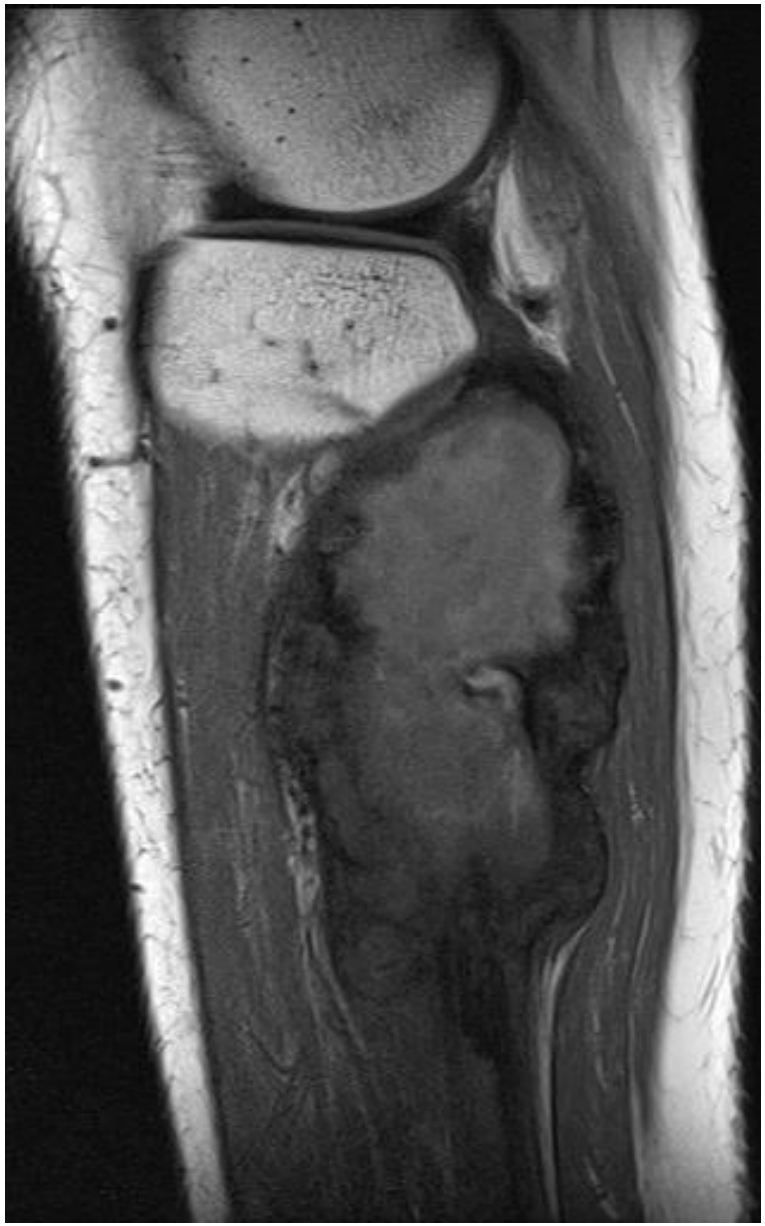
proximal fibula; complex reconstruction



May 29, 2018

SarcOmaSurgery

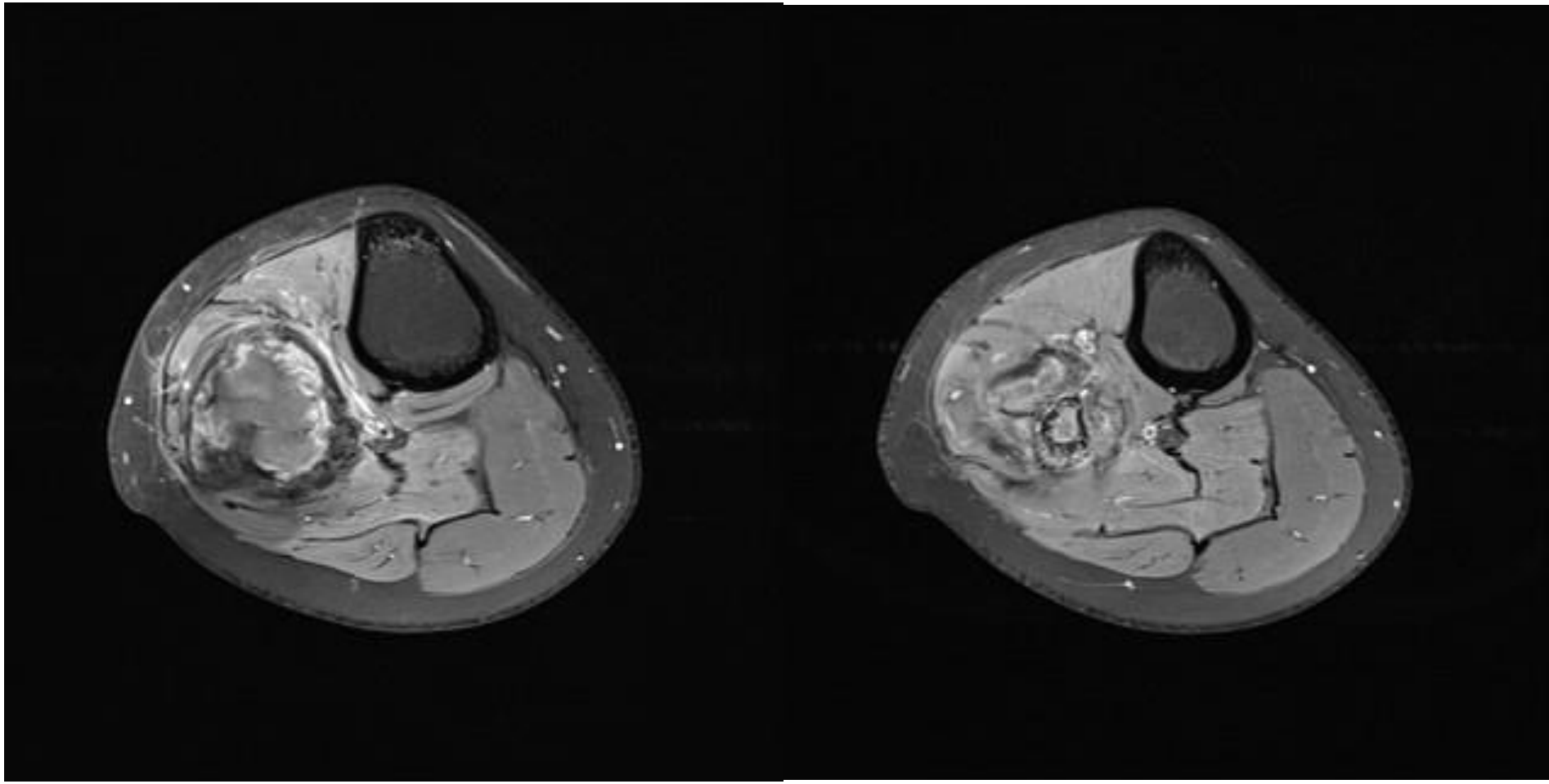
proximal fibula; complex reconstruction



May 29, 2018

SarcomaSurgery

proximal fibula; complex reconstruction



May 29, 2018

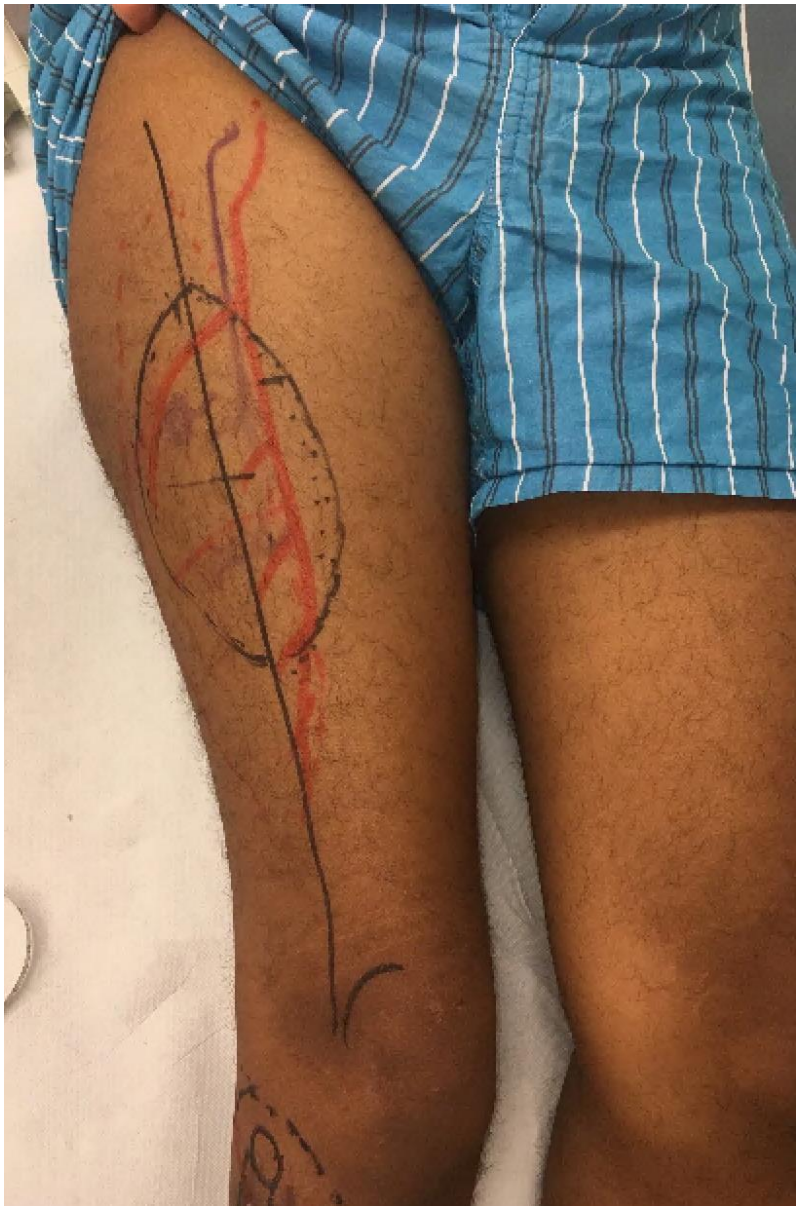
SarcomaSurgery

proximal fibula; complex reconstruction

May 29, 2018

SarcomaSurgery

proximal fibula; complex reconstruction



June 04, 2018

SarcomaSurgery

proximal fibula; complex reconstruction

RECONSTRUCTIVE

Neuromusculotendinous Transfer: An Original Surgical Concept for the Treatment of Drop Foot with Long-Term Follow-Up

Milomir Ninković, M.D., Ph.D.
Marina Ninković, M.D.
Munich, Germany; and Innsbruck, Austria

Background: An original surgical technique for the correction of drop foot is demonstrated.
Methods: Eighteen patients with drop foot underwent transfer of the lateral, medial, or both heads of the gastrocnemius muscle to the tendons of the anterior and/or lateral muscle group of the lower leg. The transferred muscle was reinnervated by nerve coaptation between the undamaged proximal part of the deep peroneal nerve and the motor branch of the tibial nerve supplying the gastrocnemius muscle.
Results: In all patients, the transferred gastrocnemius muscle showed signs of reinnervation within an average of 6 months after operation. Ten patients achieved excellent results, having regained stable, fully automatic walking without foot inversion/eversion and active range of foot movement of at least 40 degrees. Four patients achieved good results with active range of movement of less than 40 degrees but very stable functional gait. Satisfactory results were presented in three cases with stable ankle motion. Two of three cases had dual transfer of the gastrocnemius muscle and had a very stable ankle joint. In one fair case, the treatment improved stability and the patient was able to walk.
Conclusions: To compensate for the loss of function of the anterior muscle compartment, neuromusculotendinous transfer of the gastrocnemius muscle has proved to be highly successful. Voluntary movement of the transferred muscle and fully automatic walking was achieved in the majority of patients treated. In contrast to the commonly used treatment of tibialis posterior muscle transfer, no reeducation of the transferred muscle was needed. (*Plast. Reconstr. Surg.* 132: 438e, 2013.)
CLINICAL QUESTION/LEVEL OF EVIDENCE: Therapeutic, IV.

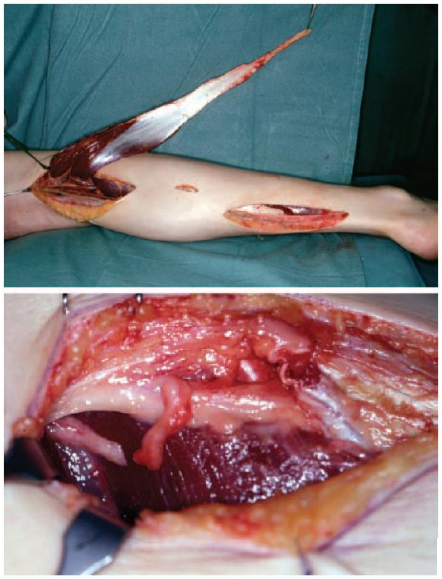


Fig. 1. (*Above*) Intraoperative view. Identification of a viabl proximal part of the deep peroneal nerve with neuroma forma tion and a dissected motor branch of the gastrocnemius muscl with presented tibial nerve and the dissected lateral gastroc nemius muscle head with neurovascular pedicle and prepare for transfer to the anterior compartment. (*Below*) Intraoperativ view. The deep peroneal nerve and motor branch of the gastroc nemius muscle are prepared for microsurgical suturing.

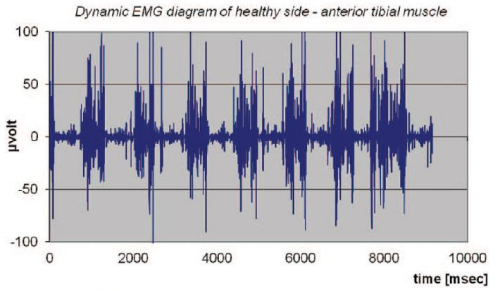


Fig. 2. Dynamic electromyography (*EMG*) during seven steps on the healthy side. Notice nearly the same diagram pattern between healthy anterior tibial muscle and transferred head of gastrocnemius muscle after reinnervation.

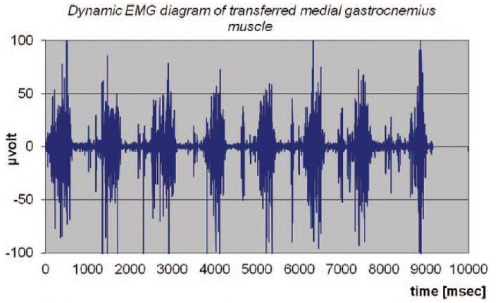


Fig. 3. Dynamic electromyography (*EMG*) during seven steps for the transferred head of the gastrocnemius muscle. Notice nearly the same diagram pattern between healthy anterior tibial muscle and transferred head of gastrocnemius muscle after reinnervation.

June 04, 2018

proximal fibula; complex reconstruction

June 14, 2018

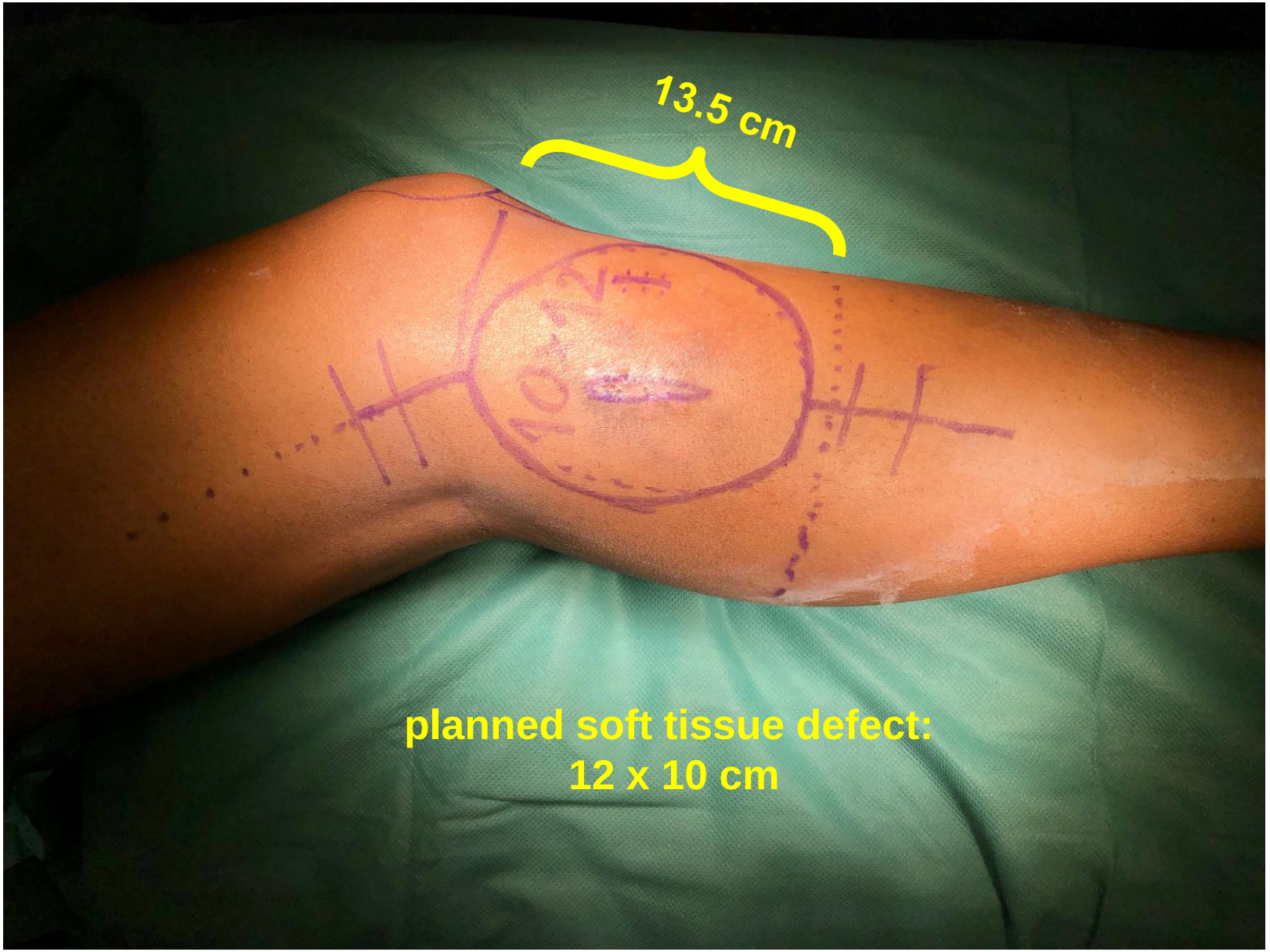
SarcomaSurgery

proximal fibula; complex reconstruction

June 14, 2018

SarcomaSurgery

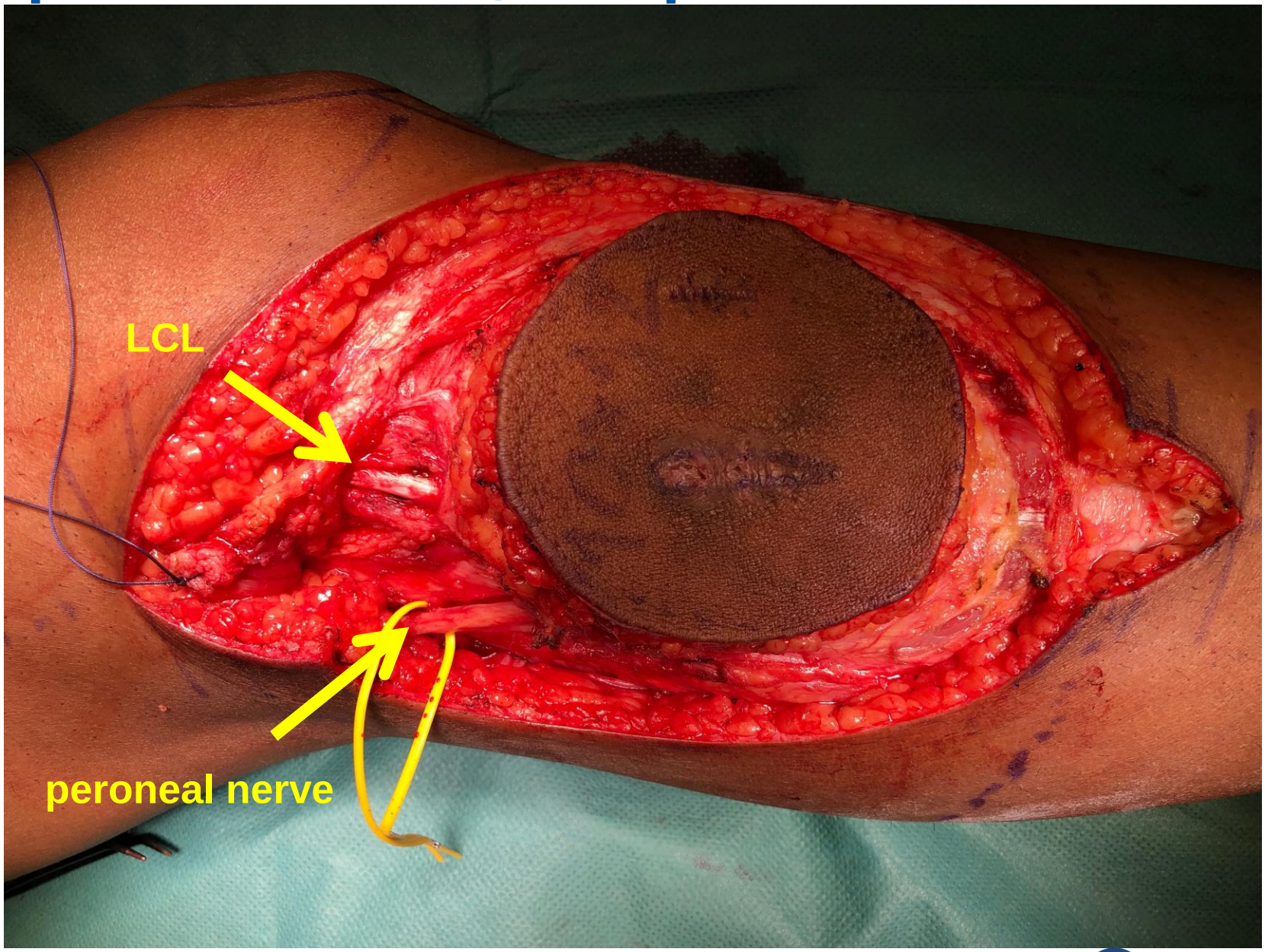
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

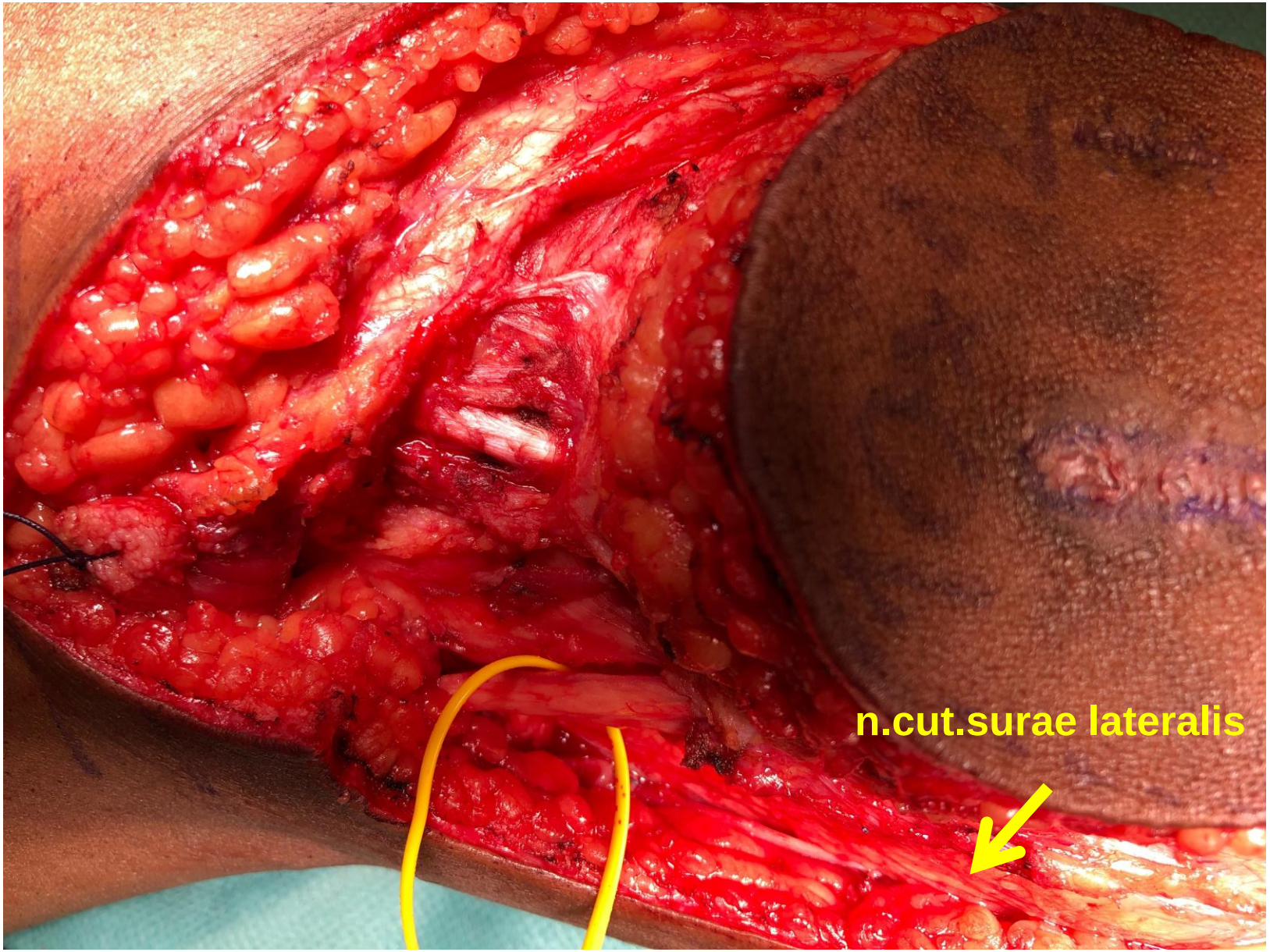
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

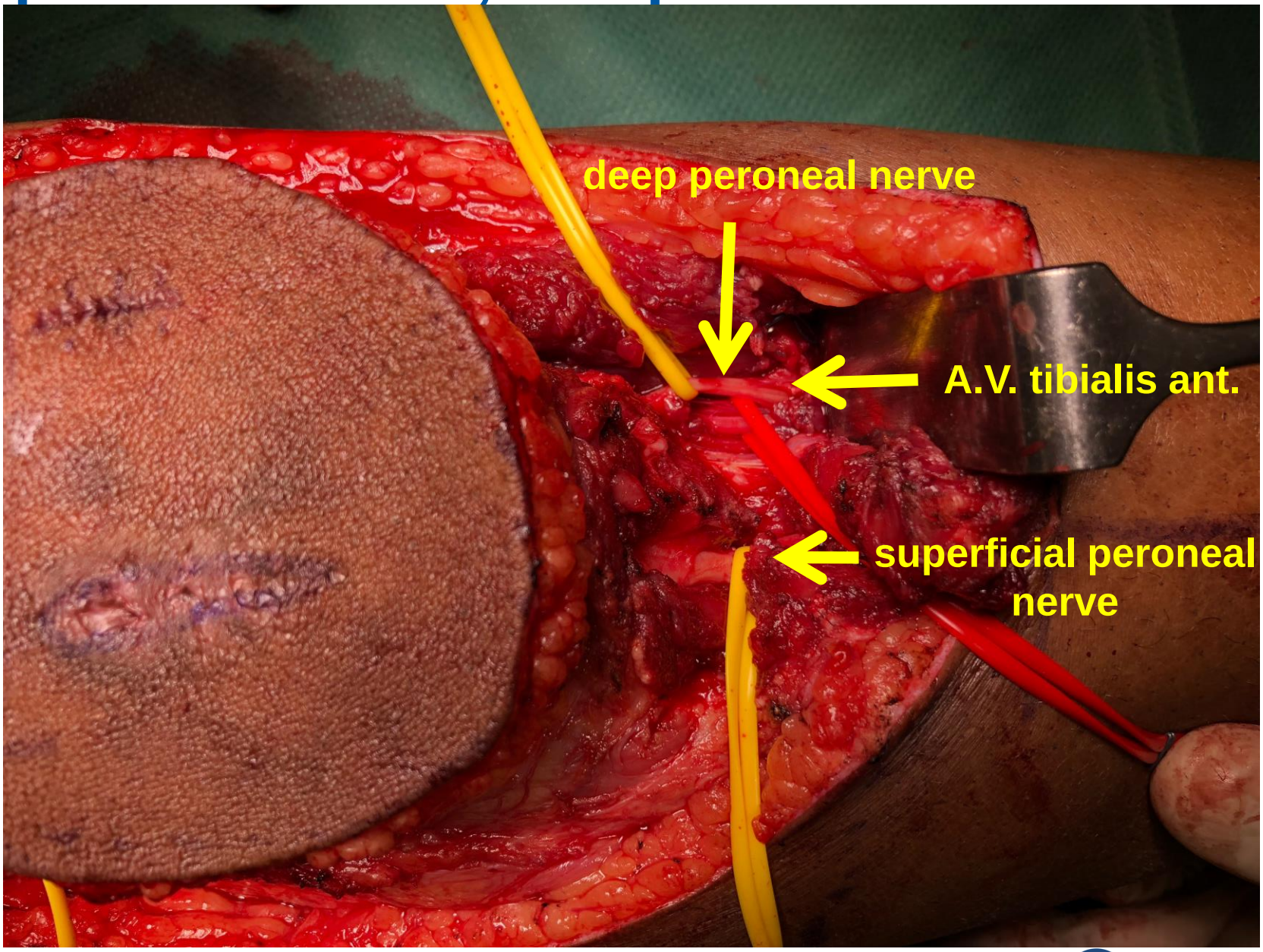
proximal fibula; complex reconstruction



June 15, 2018

SarcOmaSurgery

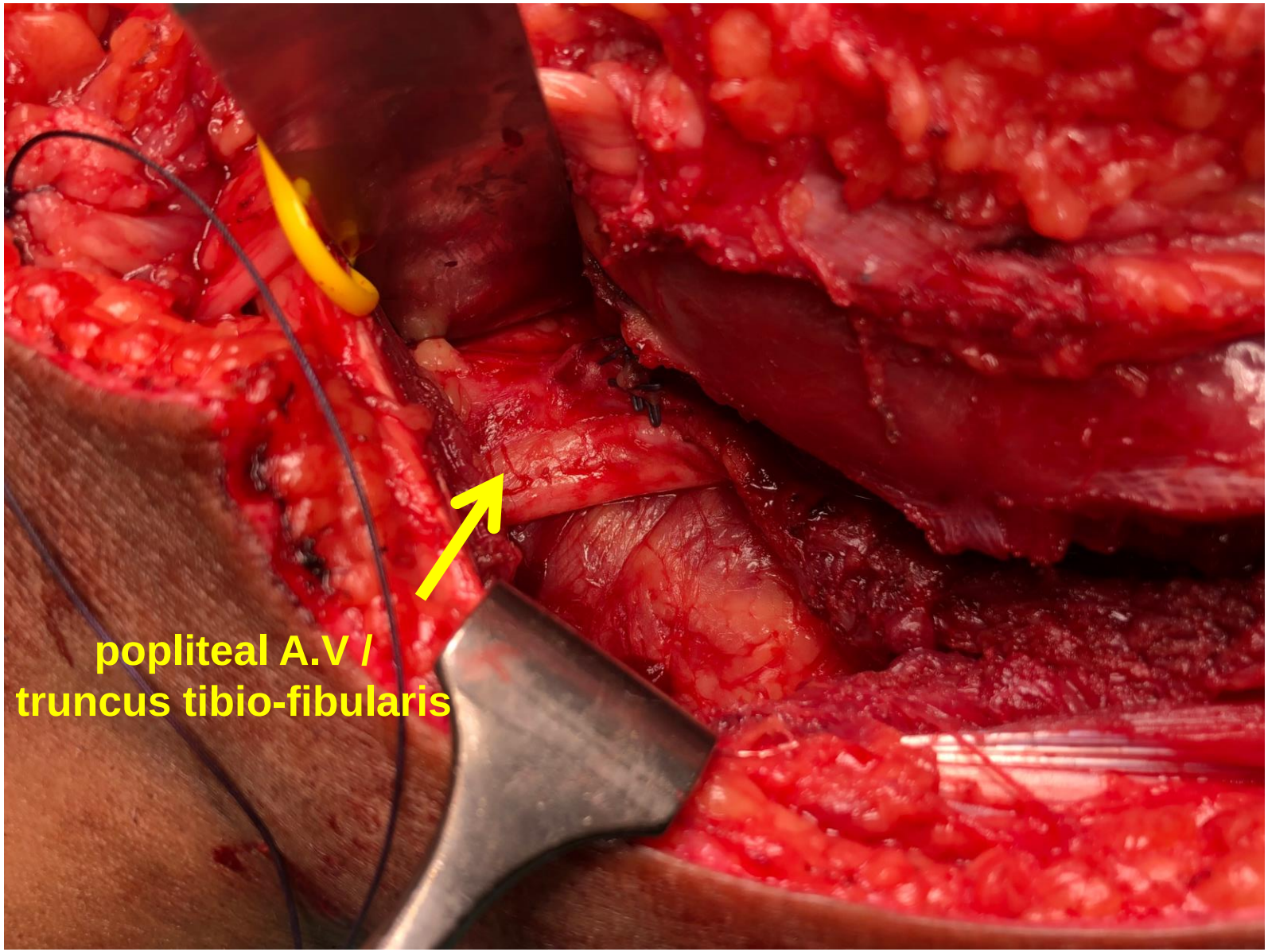
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

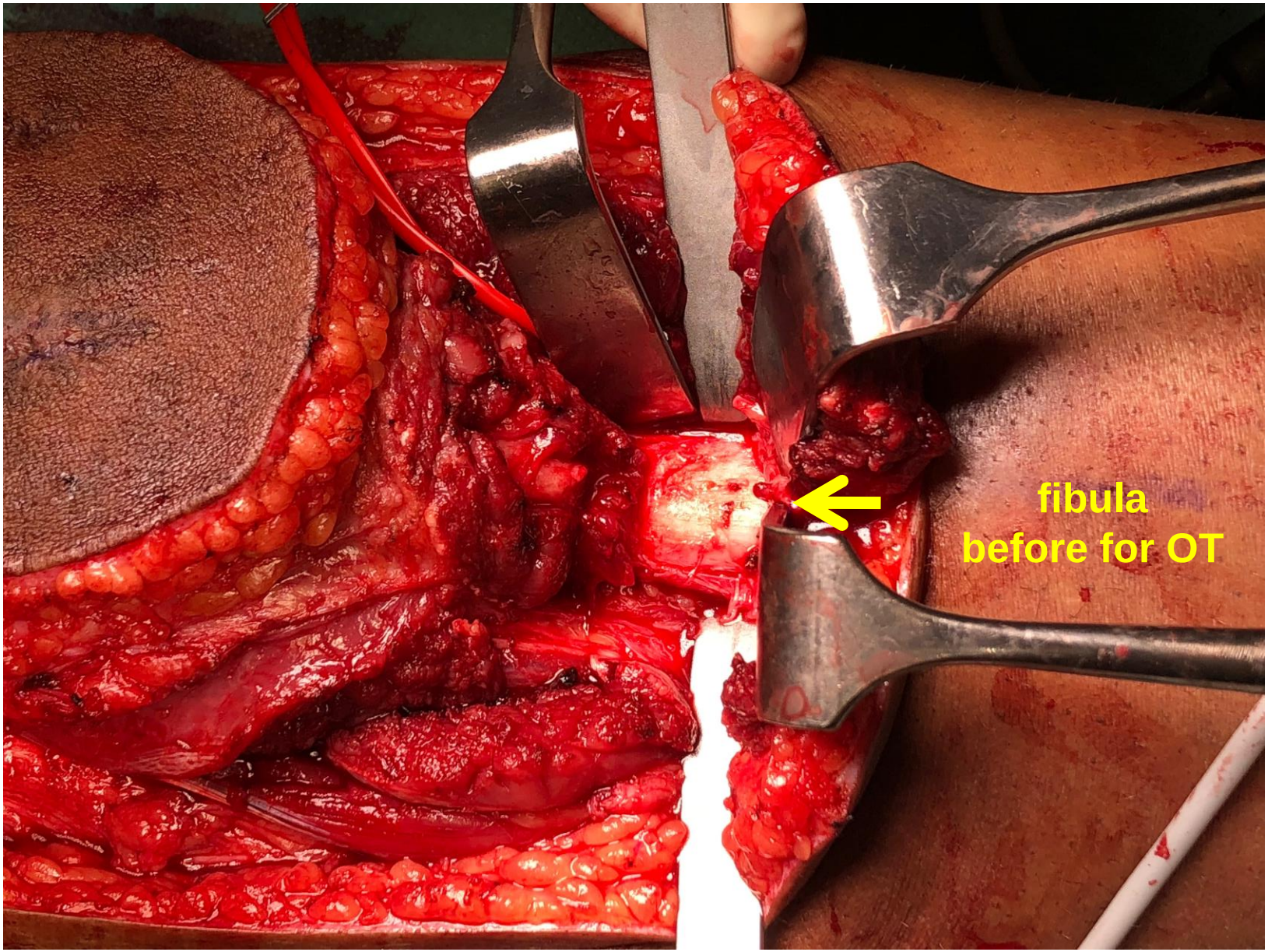
proximal fibula; complex reconstruction



June 15, 2018

SarcOmaSurgery

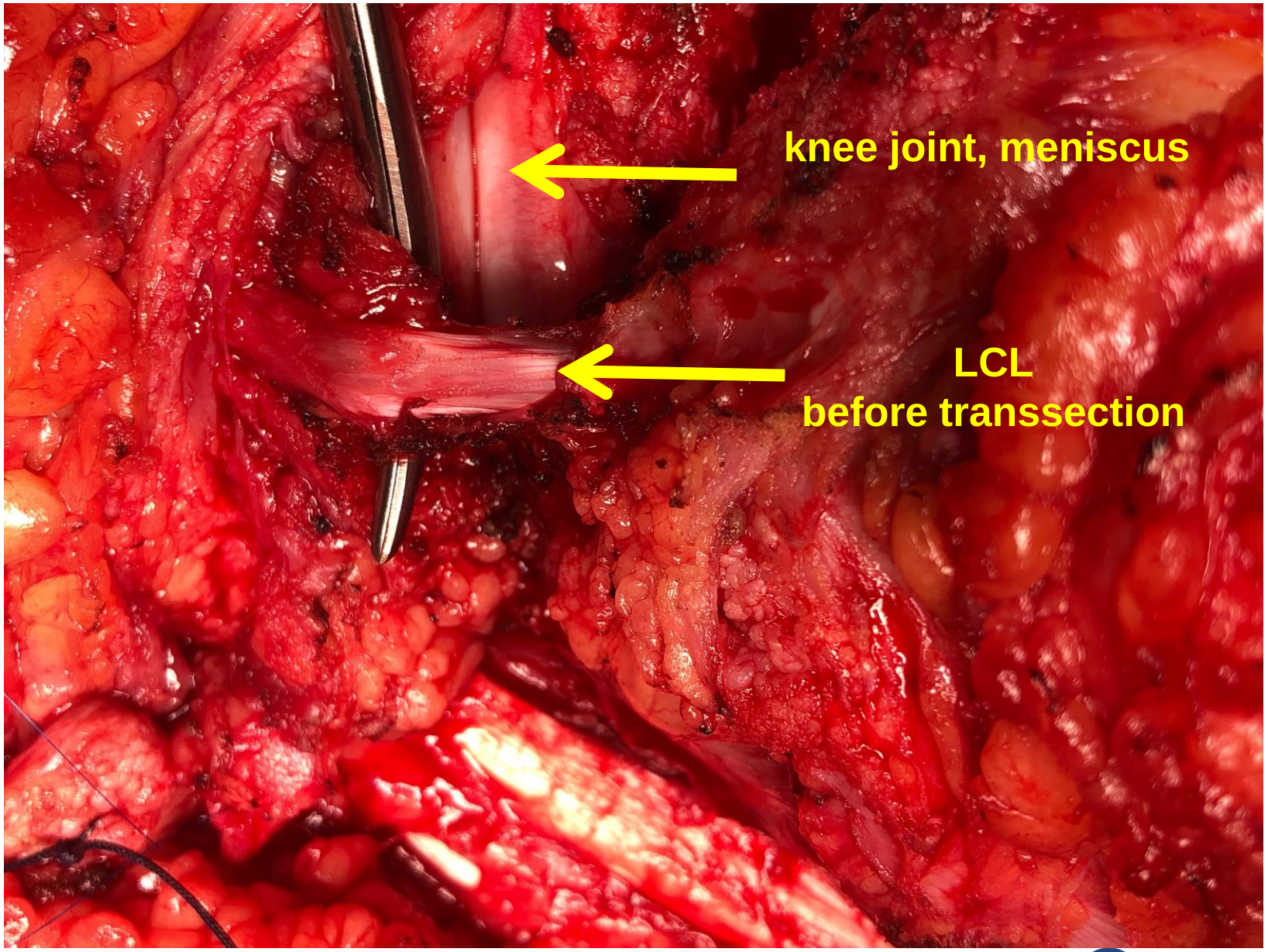
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

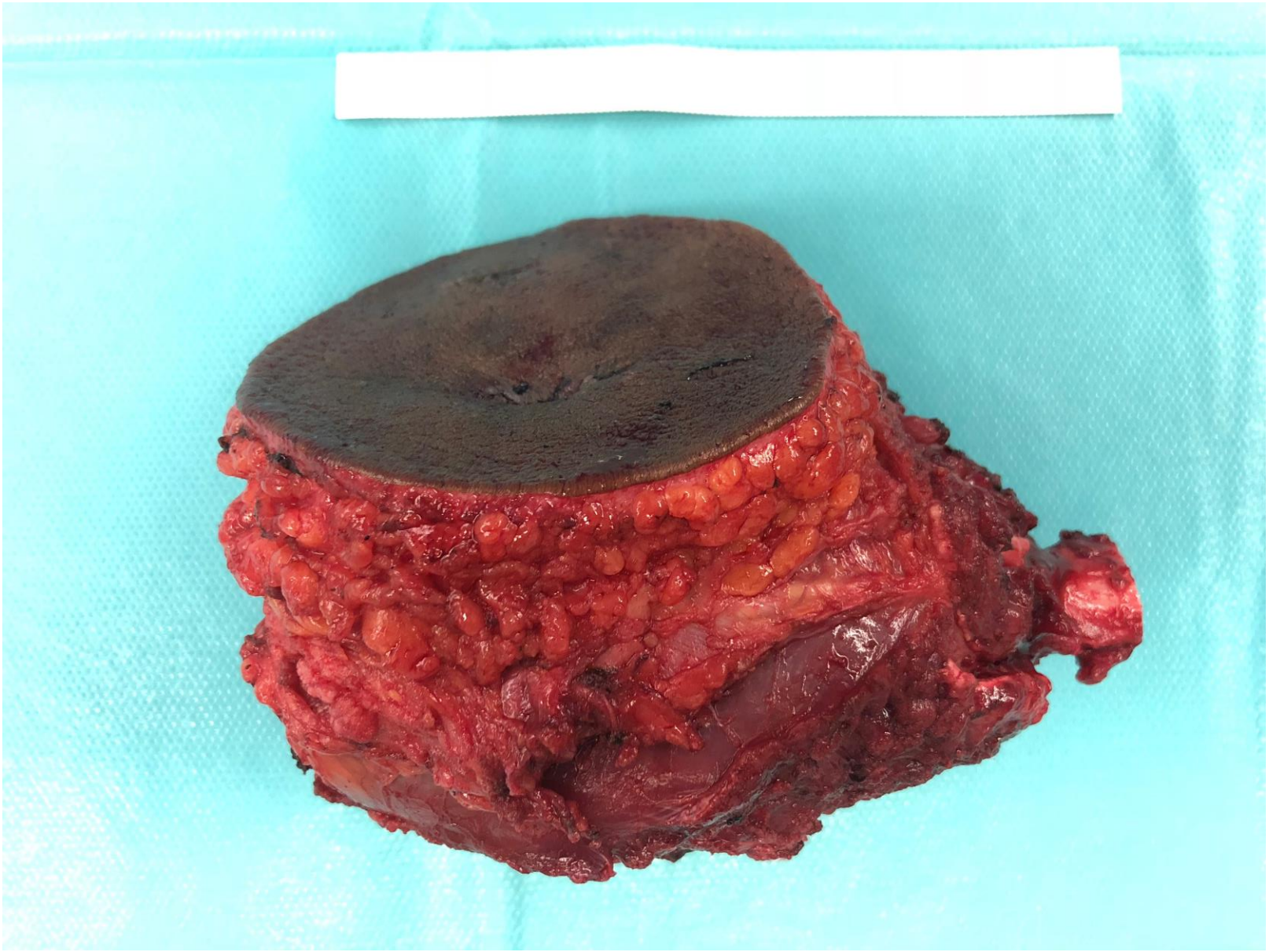
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

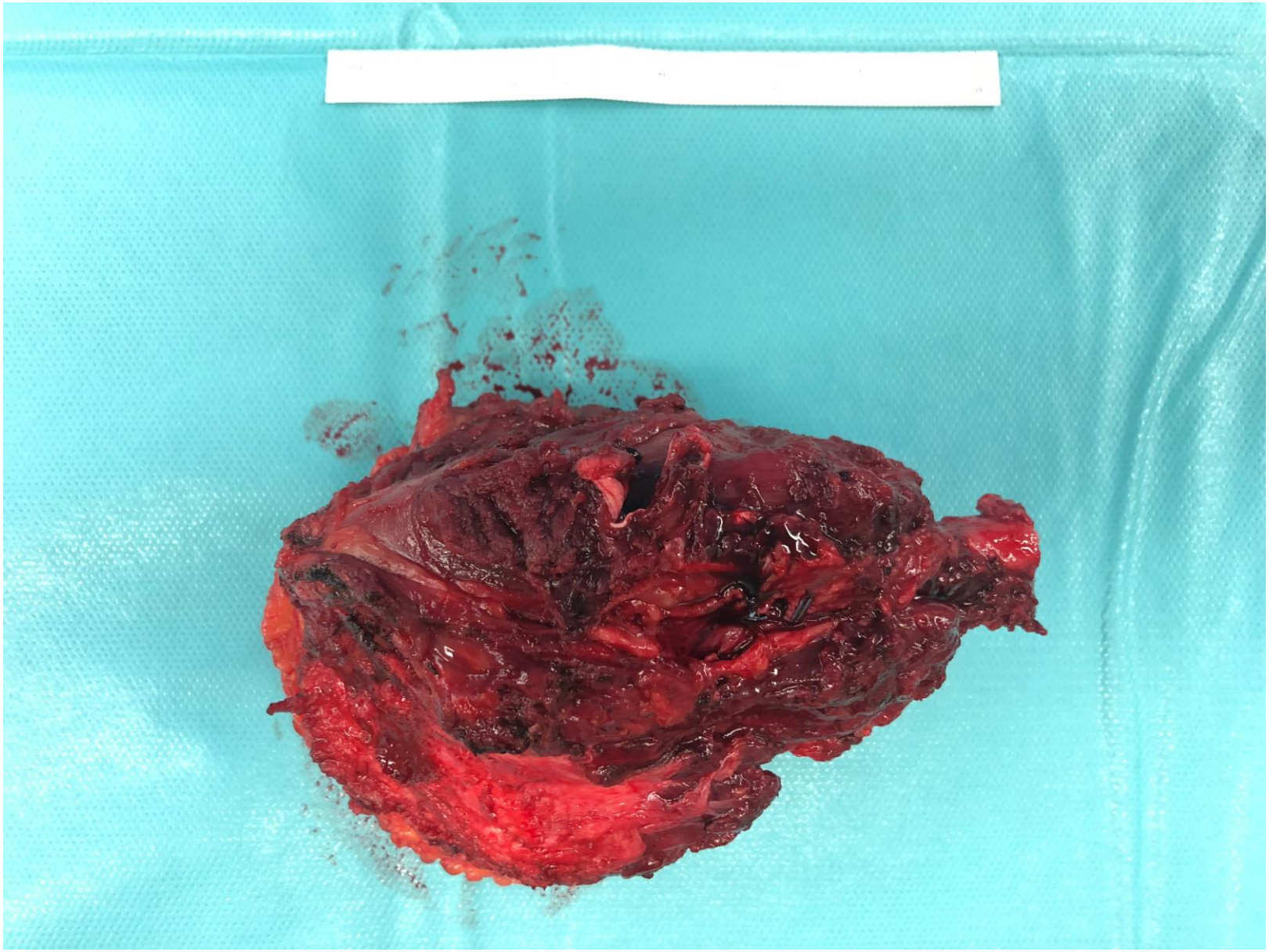
proximal fibula; complex reconstruction



June 15, 2018

SarcOmaSurgery

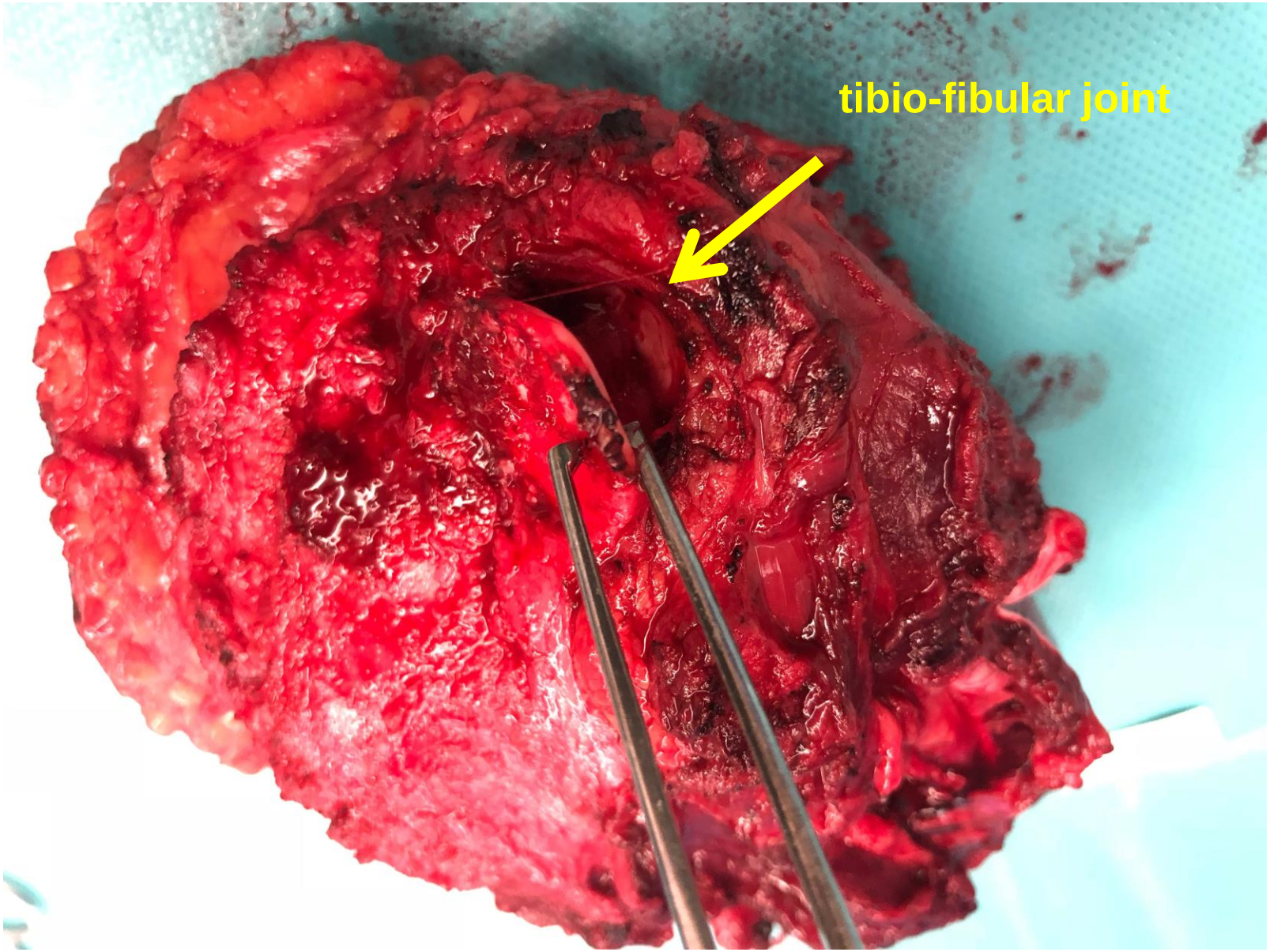
proximal fibula; complex reconstruction



June 15, 2018

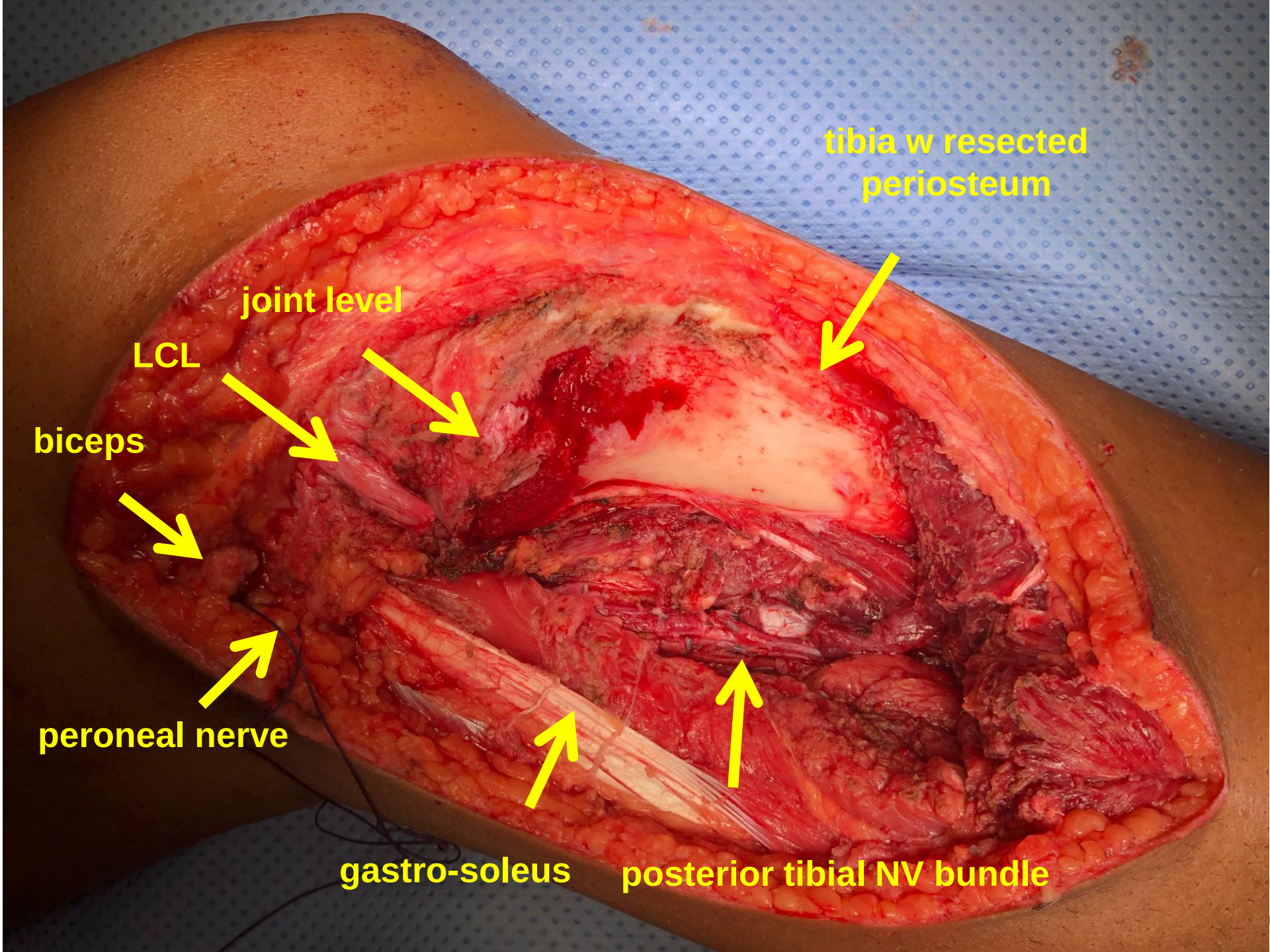
SarcomaSurgery

proximal fibula; complex reconstruction

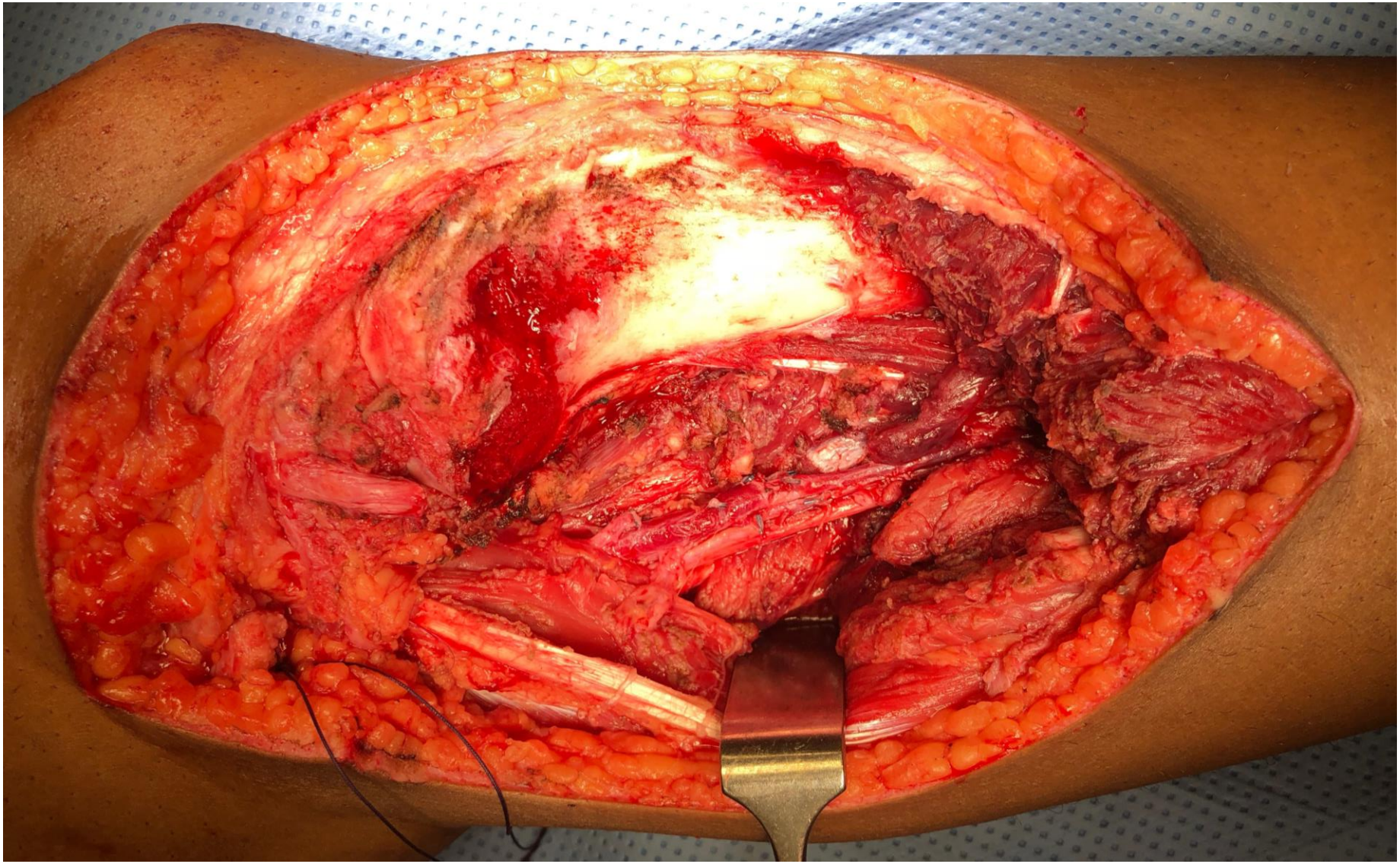


June 15, 2018

SarcomaSurgery


tibia w resected periosteum
joint level
LCL
biceps
peroneal nerve
gastro-soleus
posterior tibial NV bundle

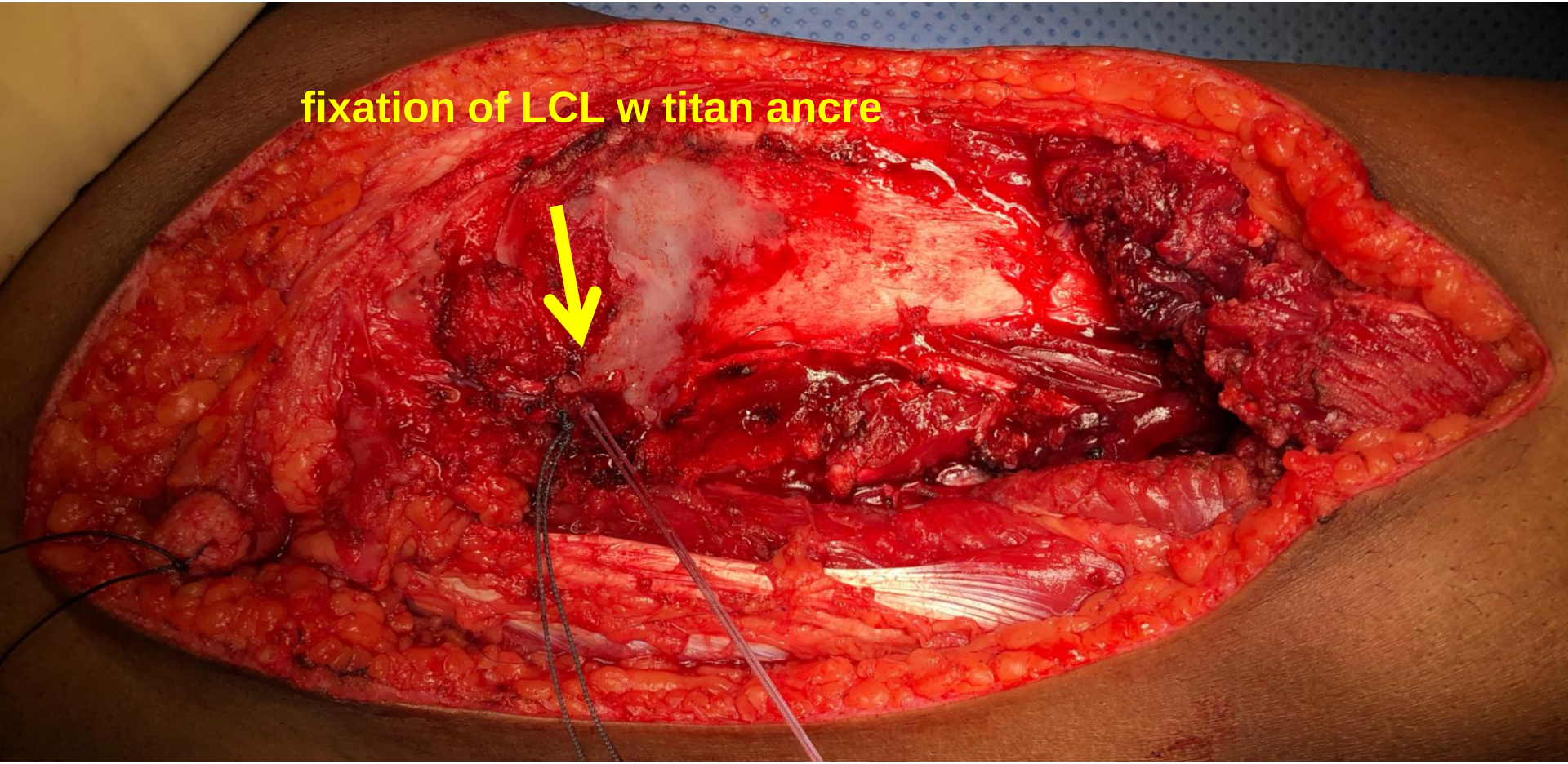
proximal fibula; complex reconstruction



June 15, 2018

SarcOmaSurgery

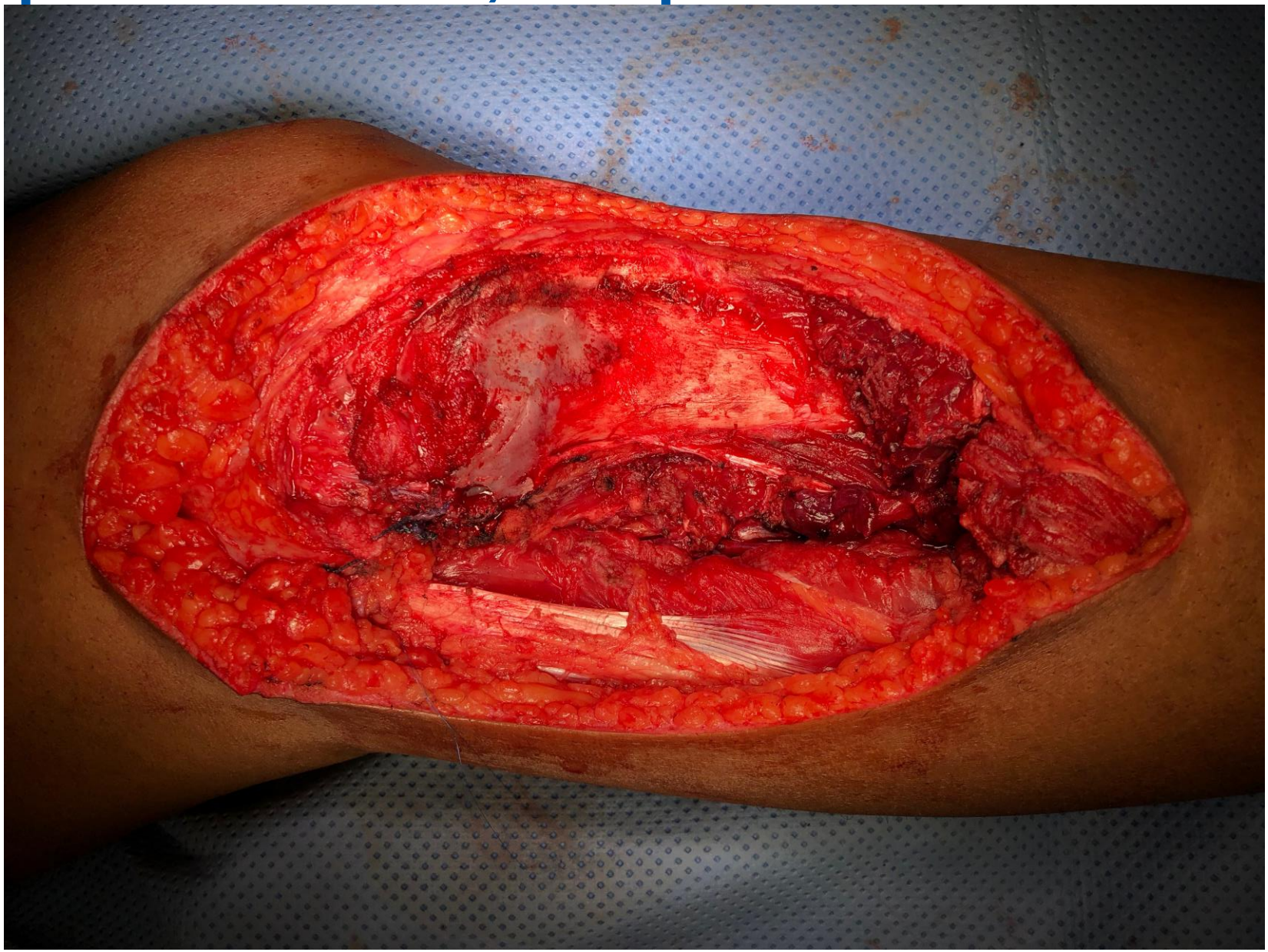
proximal fibula; complex reconstruction



June 15, 2018

SarcOmaSurgery

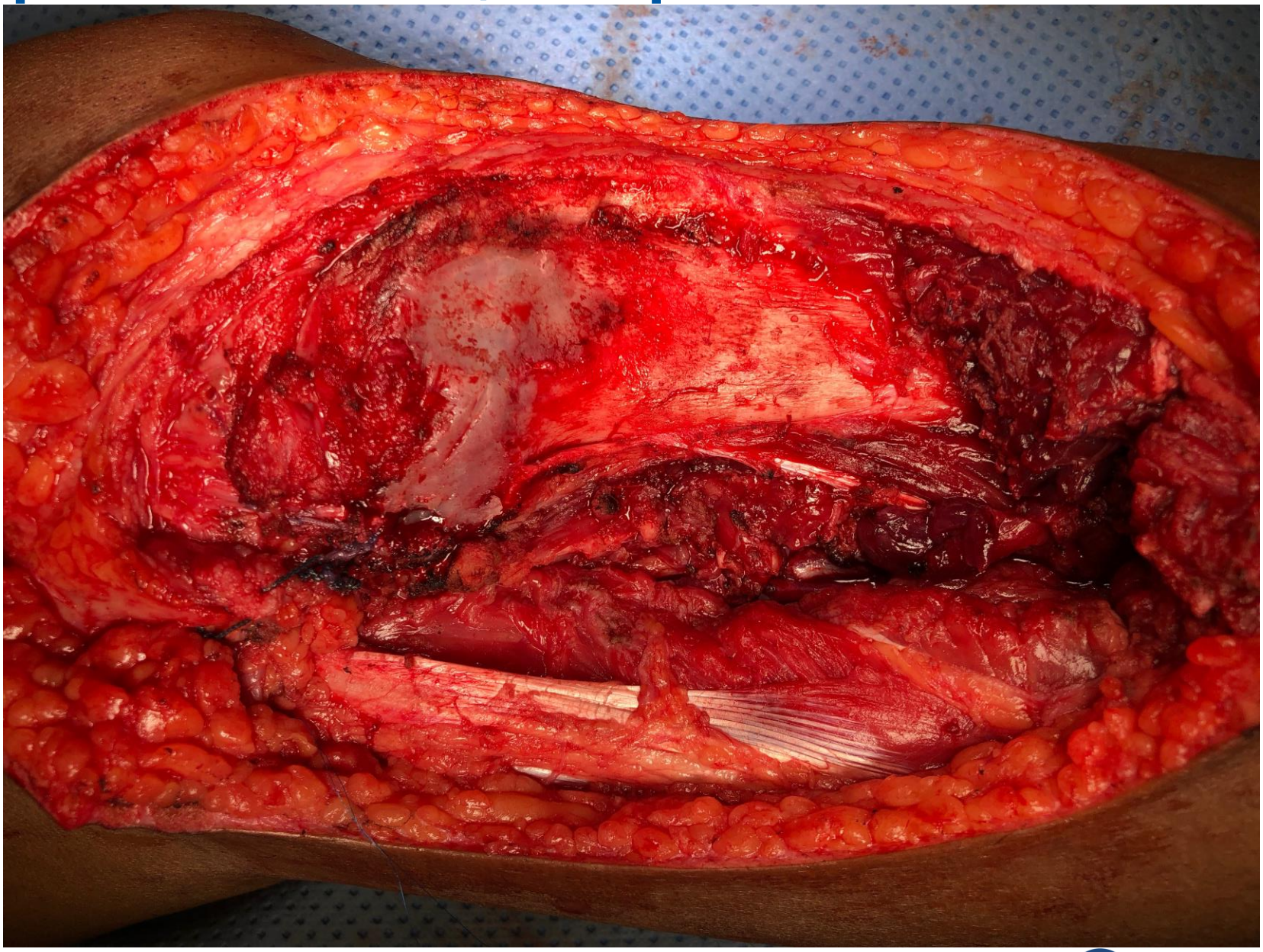
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

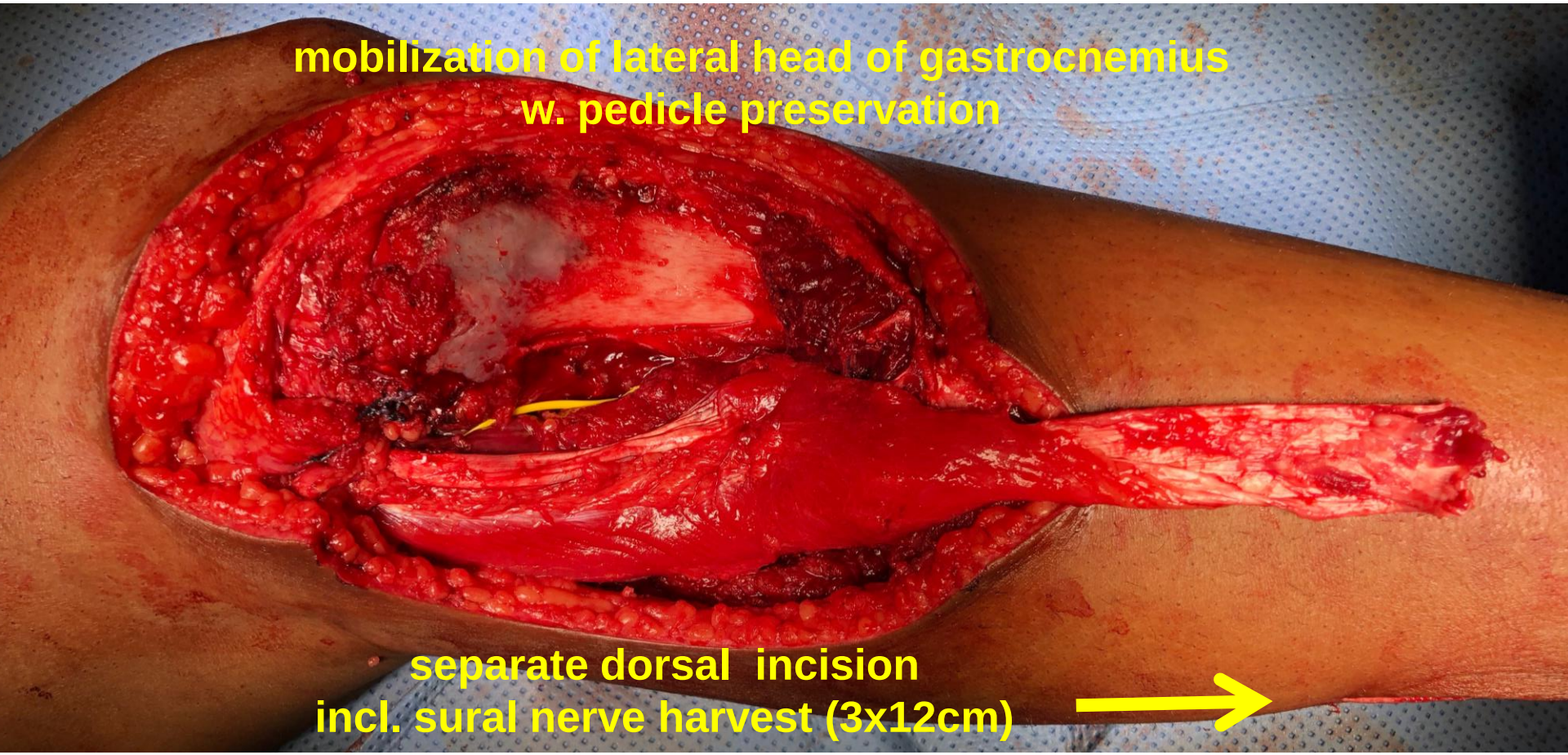
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

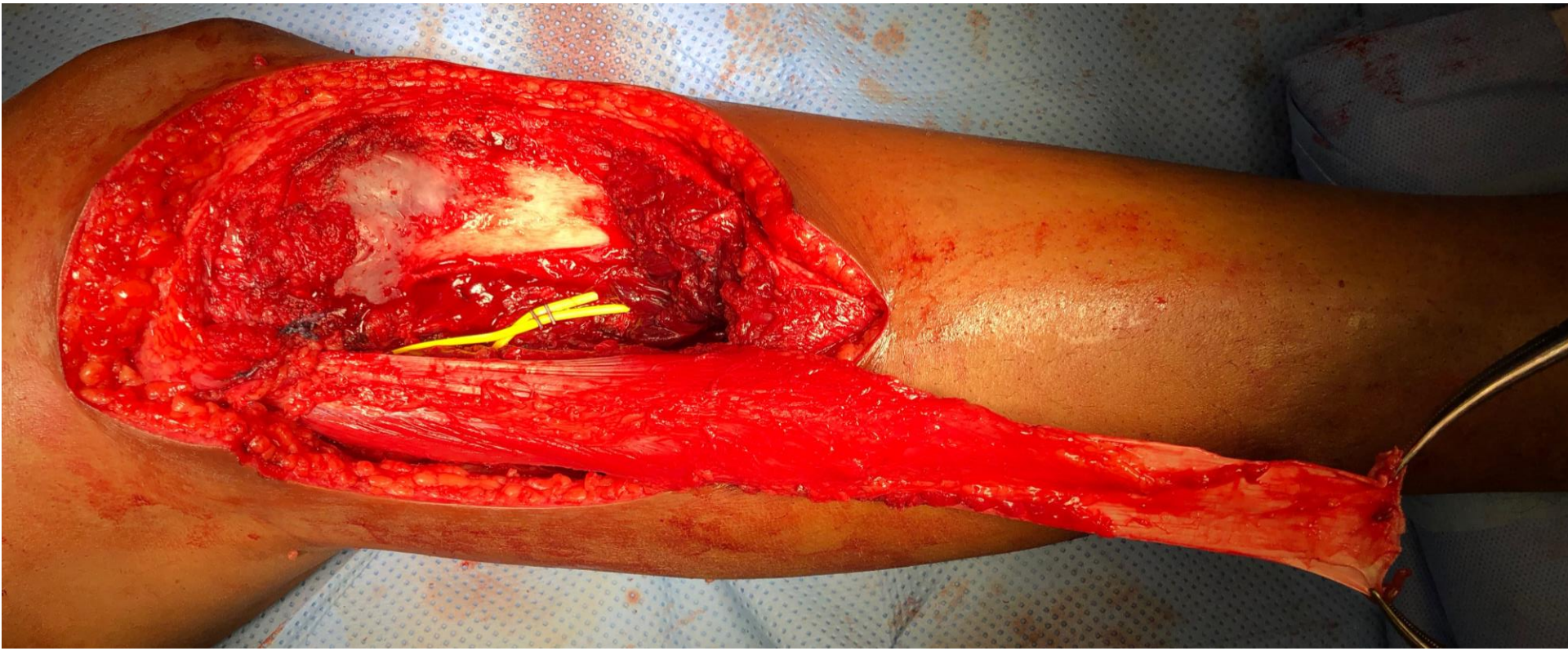
proximal fibula; complex reconstruction



June 15, 2018

SarcOmaSurgery

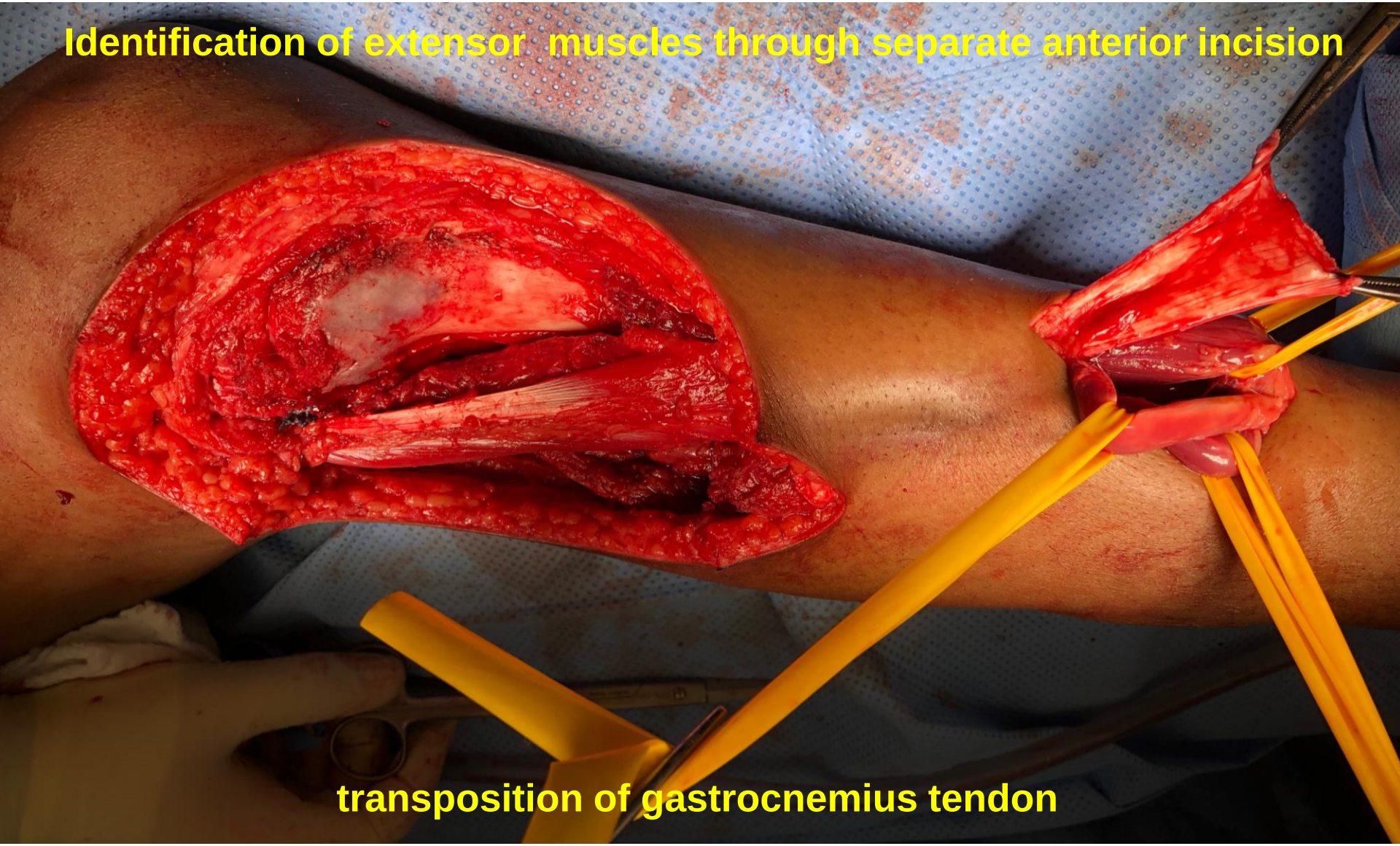
proximal fibula; complex reconstruction



June 15, 2018

SarcOmaSurgery

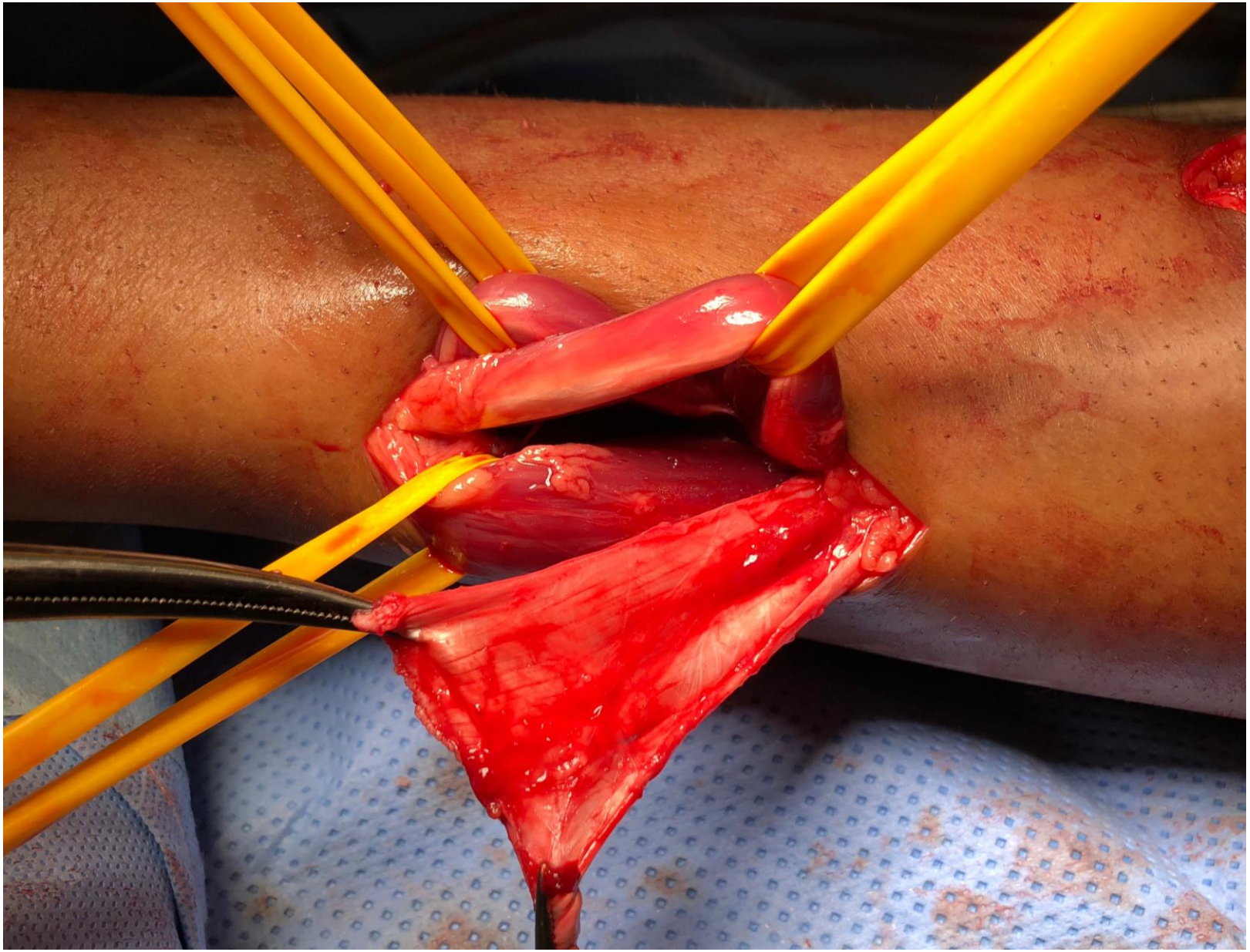
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

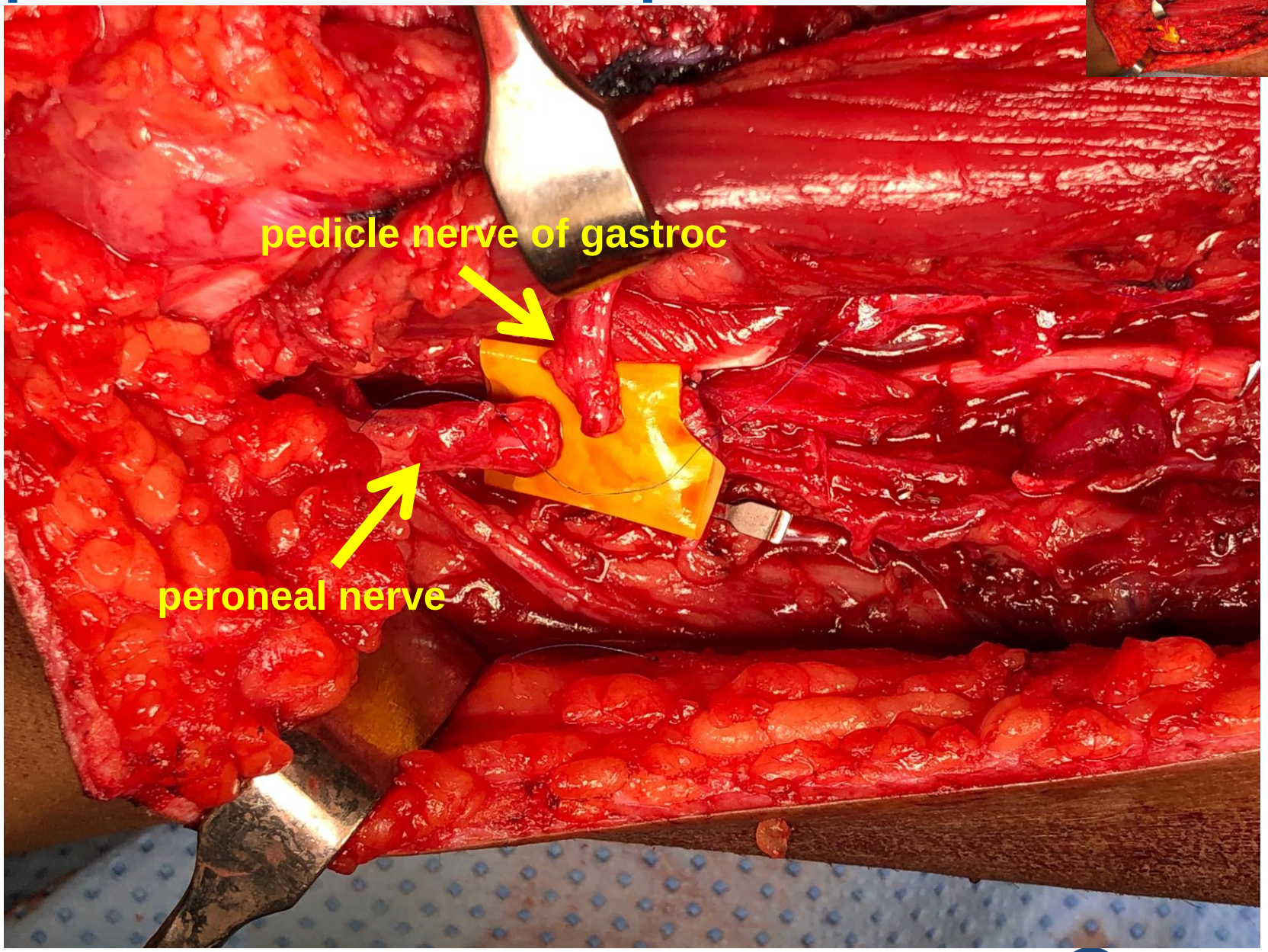
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

proximal fibula; complex reconstru



June 15, 2018

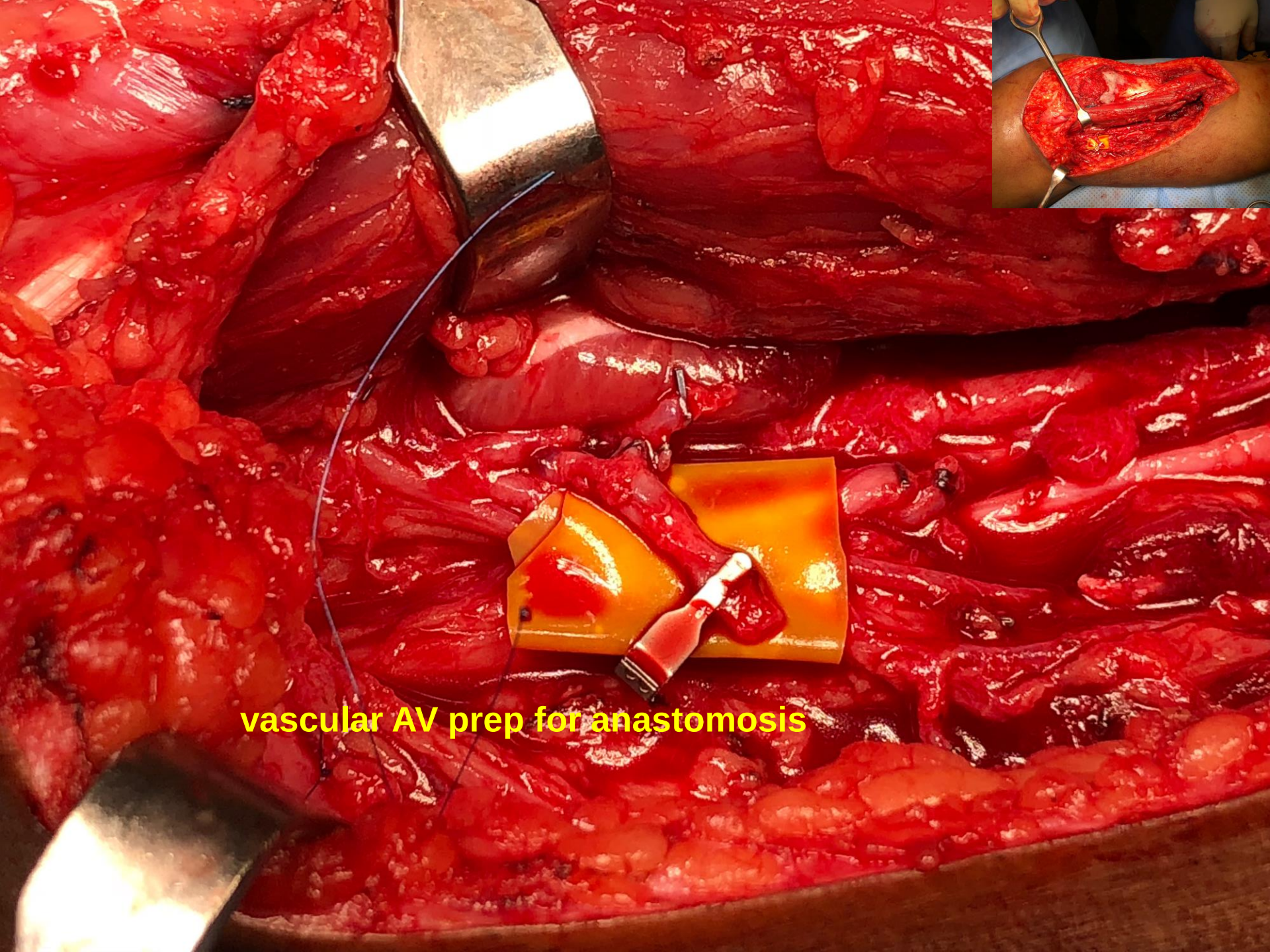
SarcomaSurgery

proximal fibula; complex reconstruc

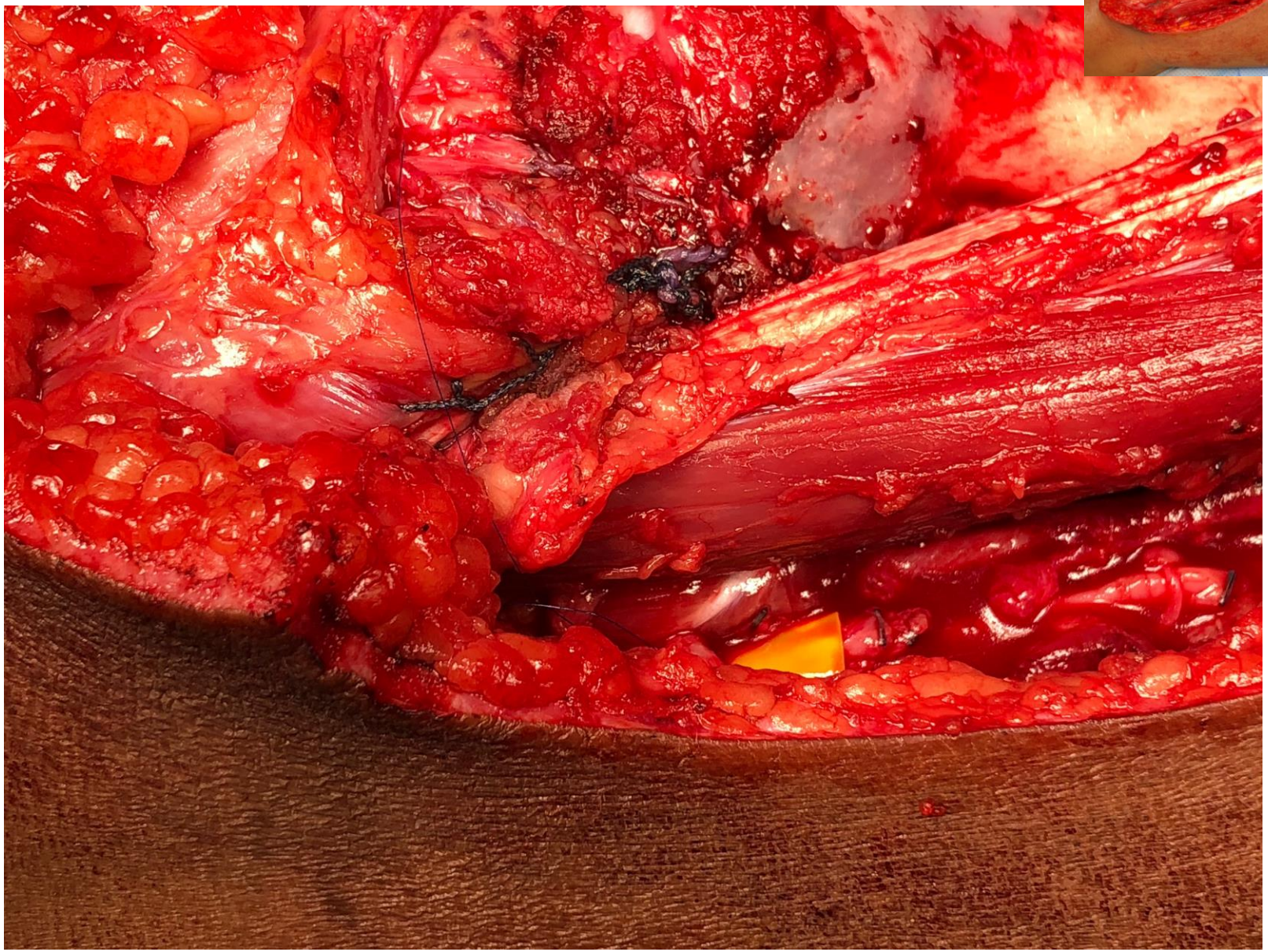
completed anastomosis

June 15, 2018

SarcomaSurgery


vascular AV prep for anastomosis

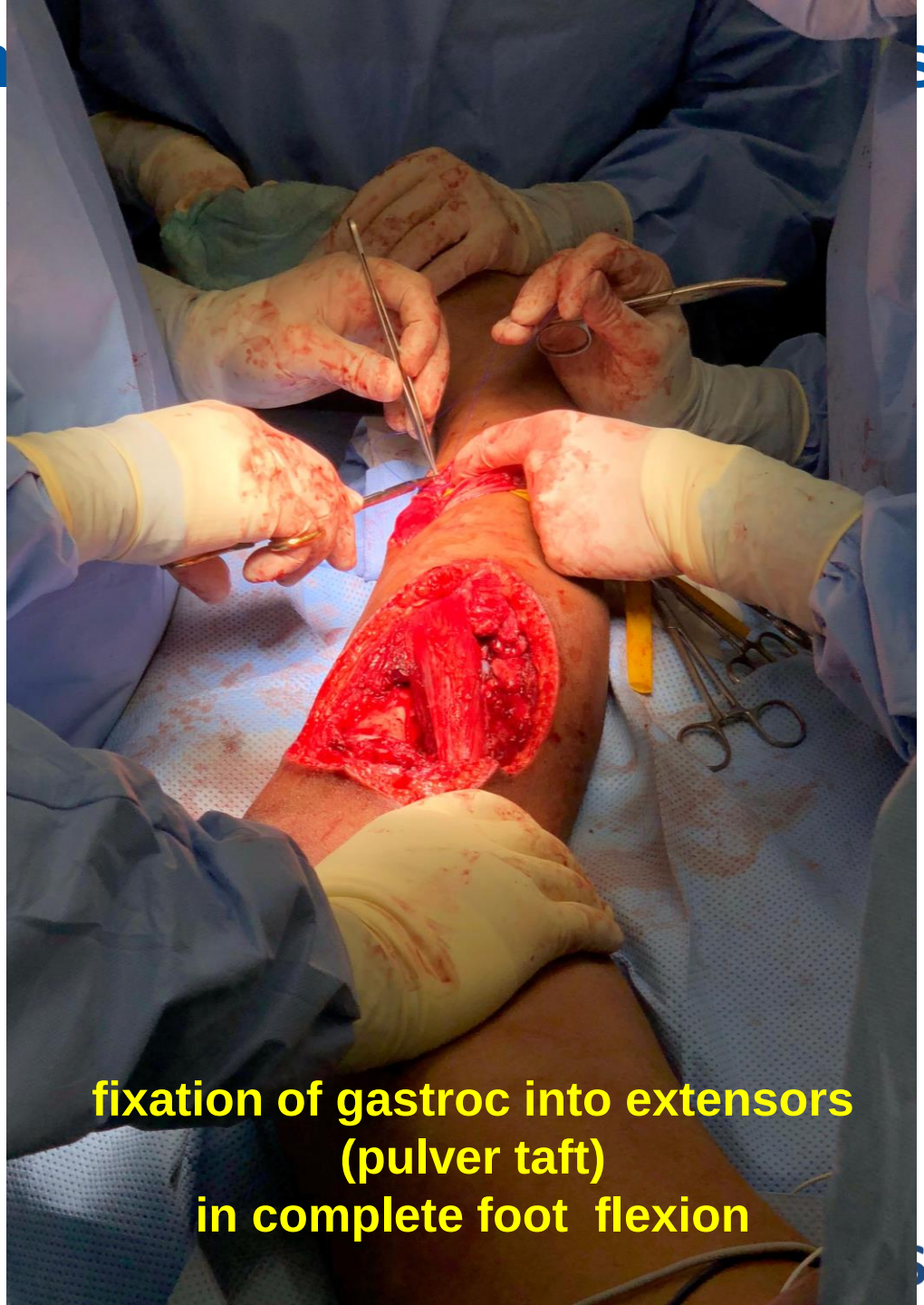
proximal fibula; complex recons

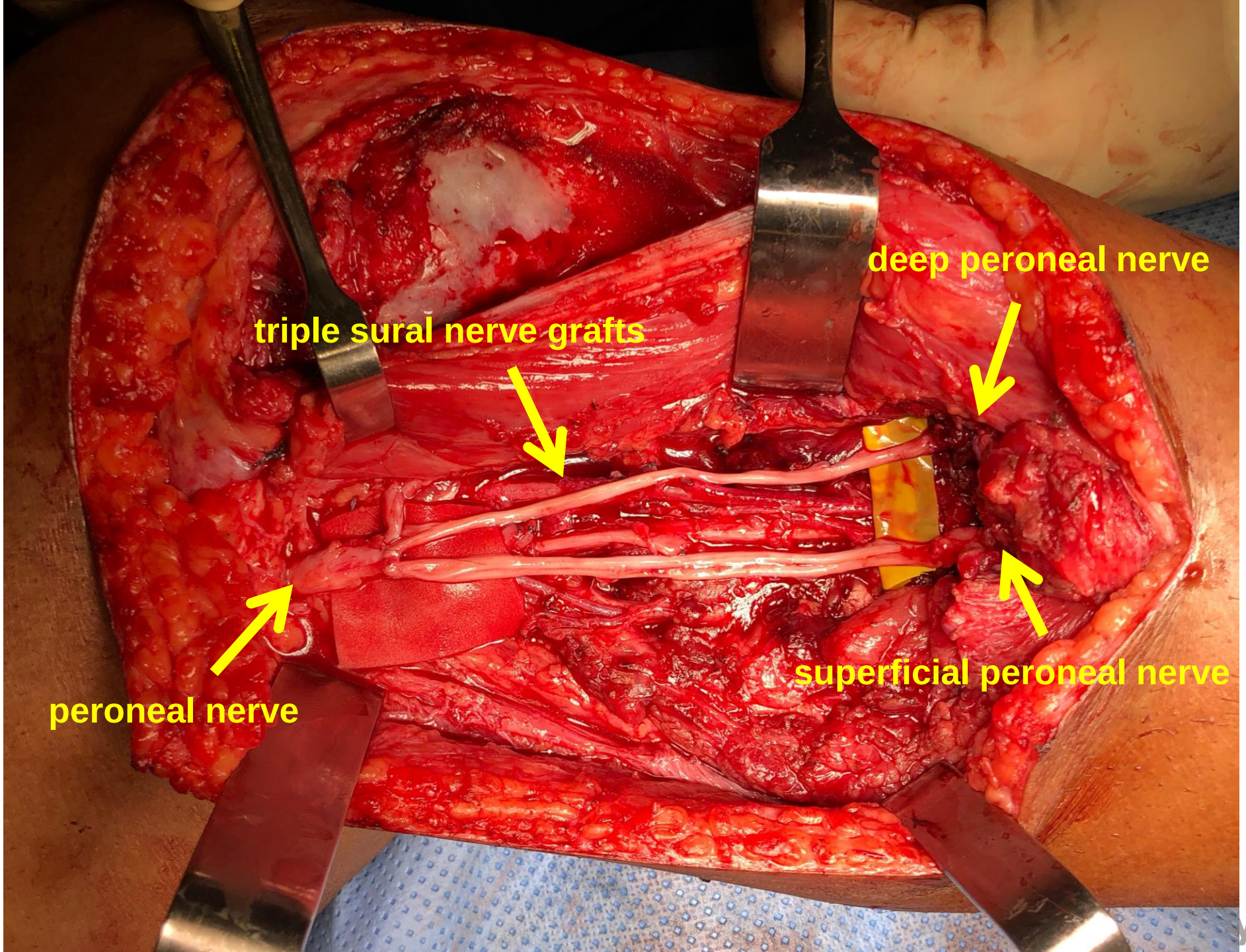


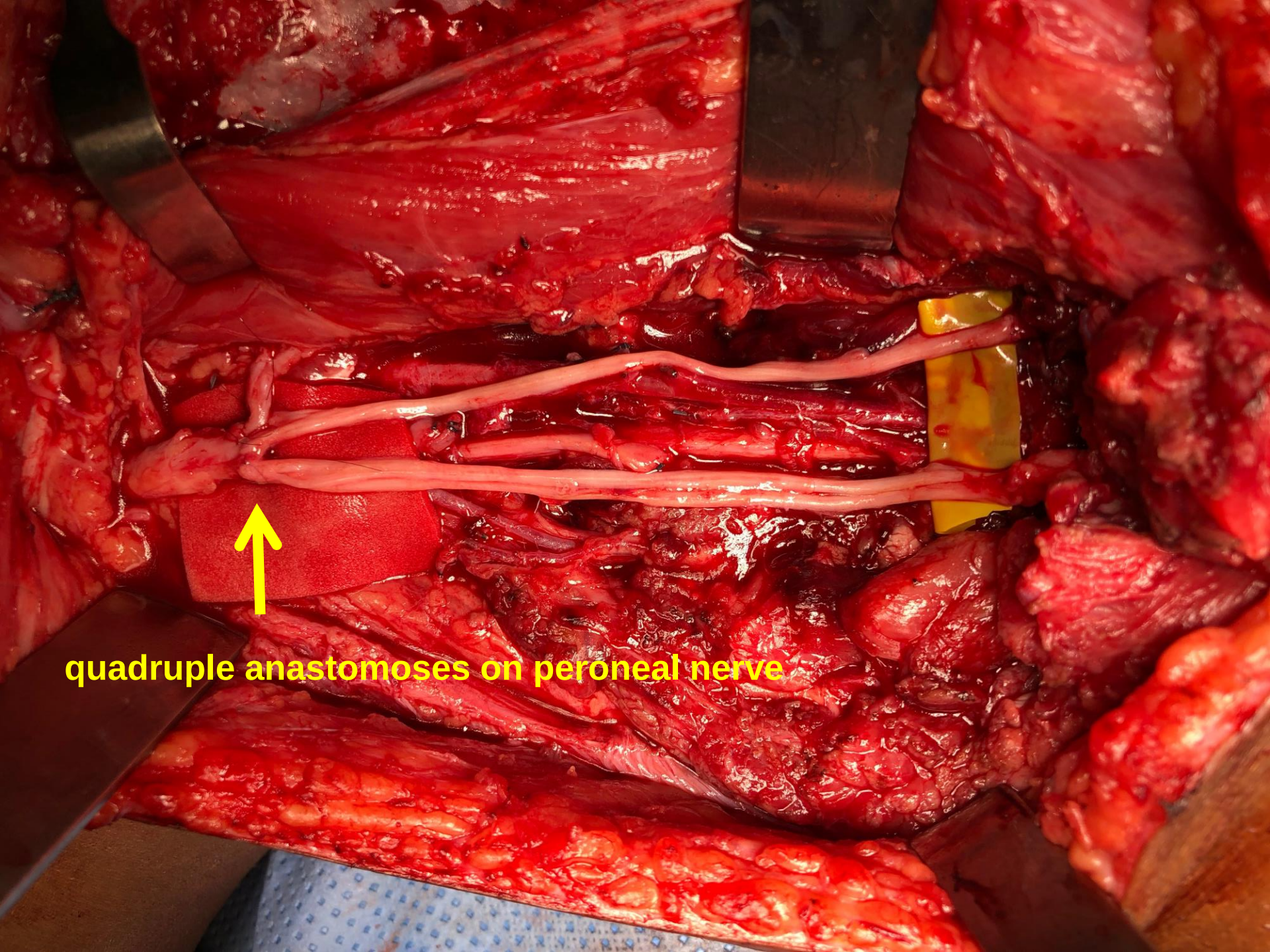
June 15, 2018

SarcomaSurgery

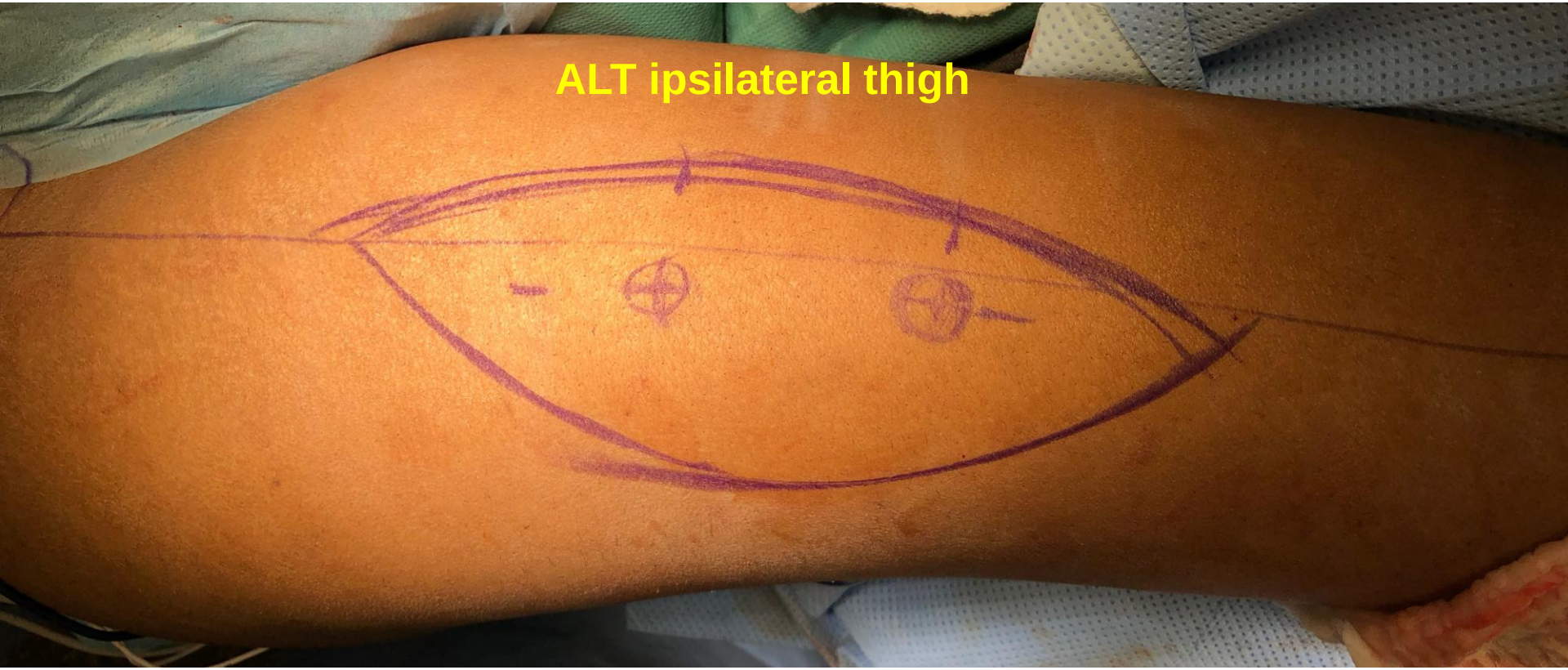
proxim struction




deep peroneal nerve
triple sural nerve grafts
peroneal nerve
superficial peroneal nerve


quadruple anastomoses on peroneal nerve

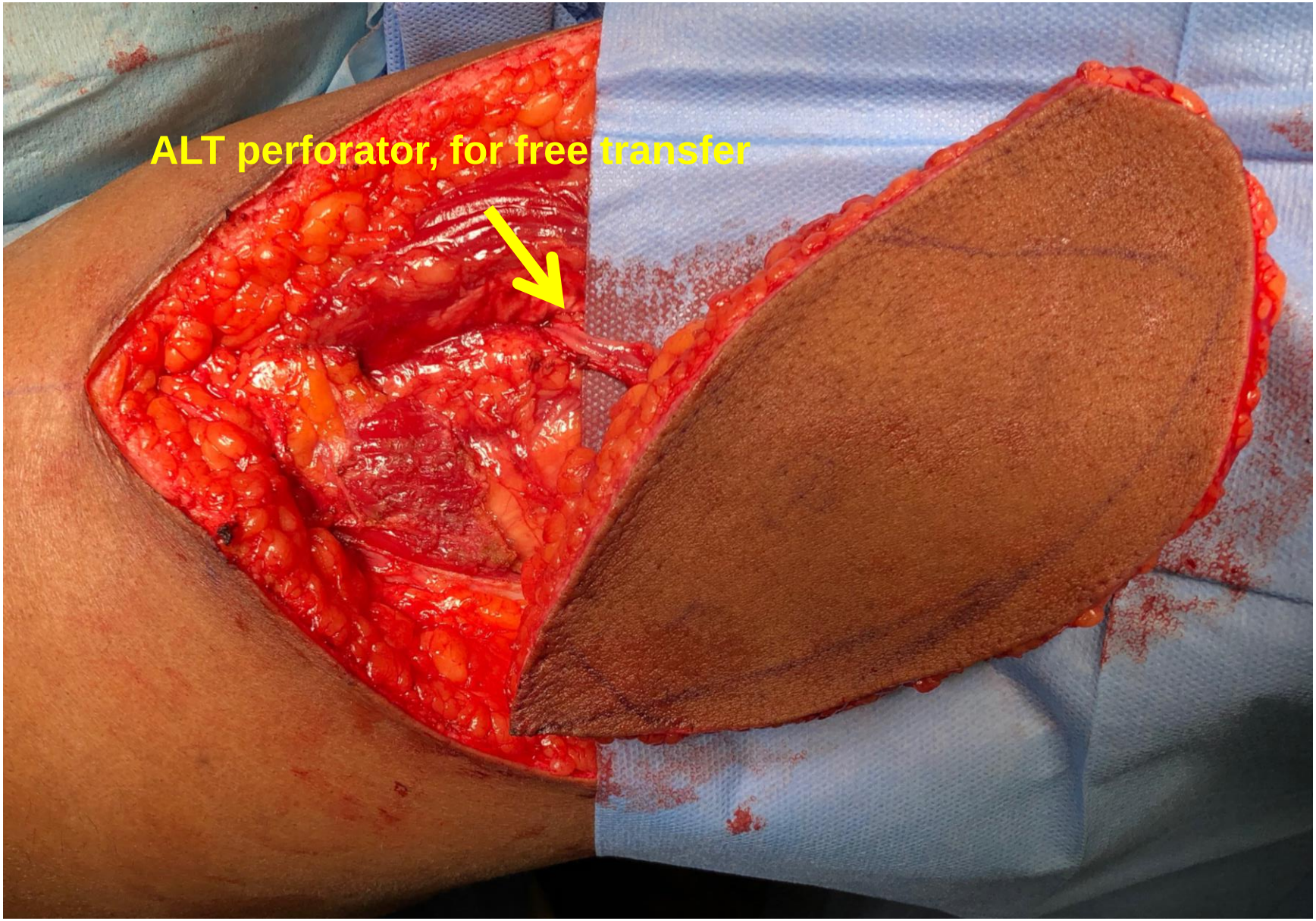
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

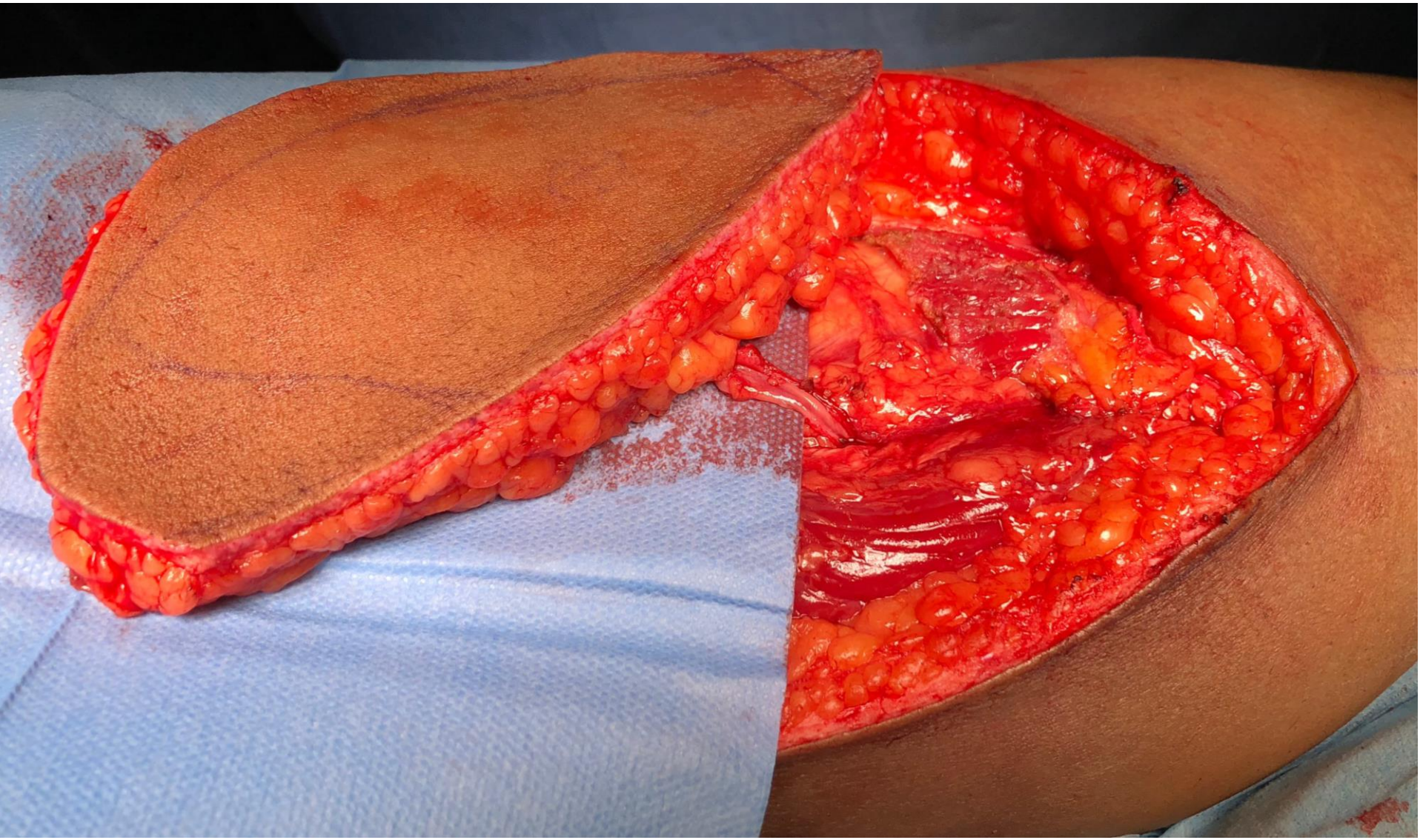
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

proximal fibula; complex reconstruction



June 15, 2018

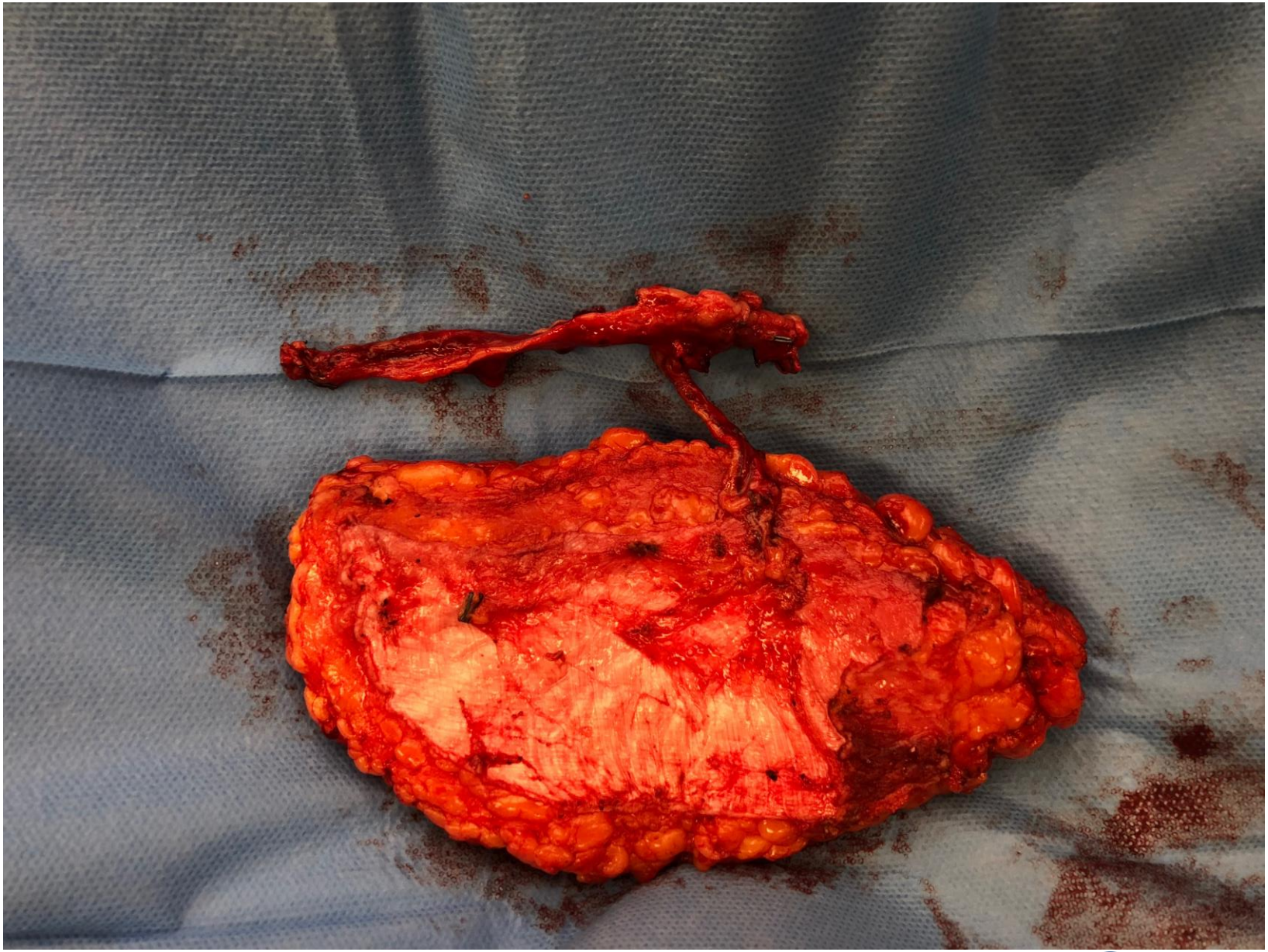
SarcomaSurgery

proximal fibula; complex reconstruction

June 15, 2018

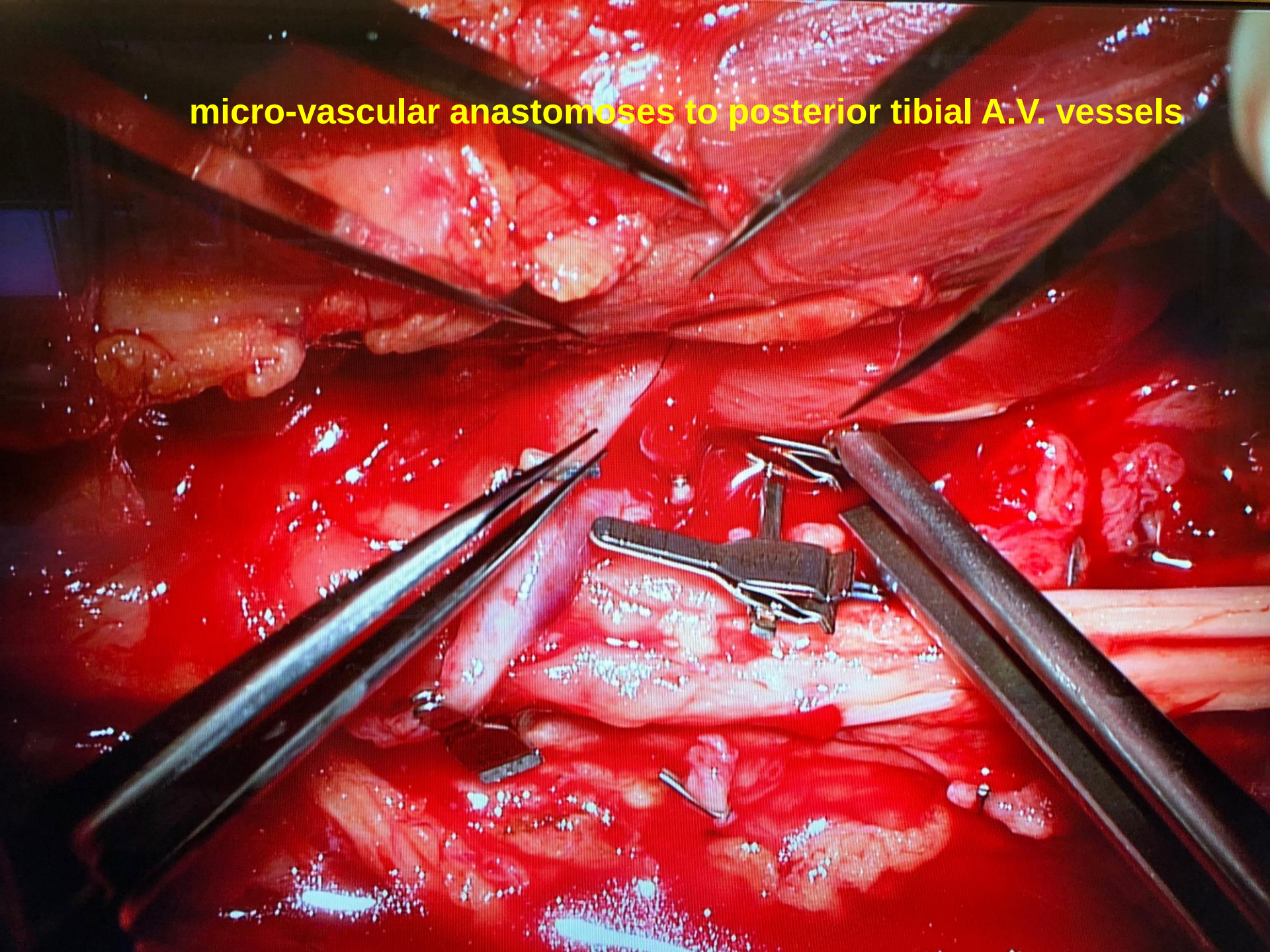
SarcomaSurgery

proximal fibula; complex reconstruction

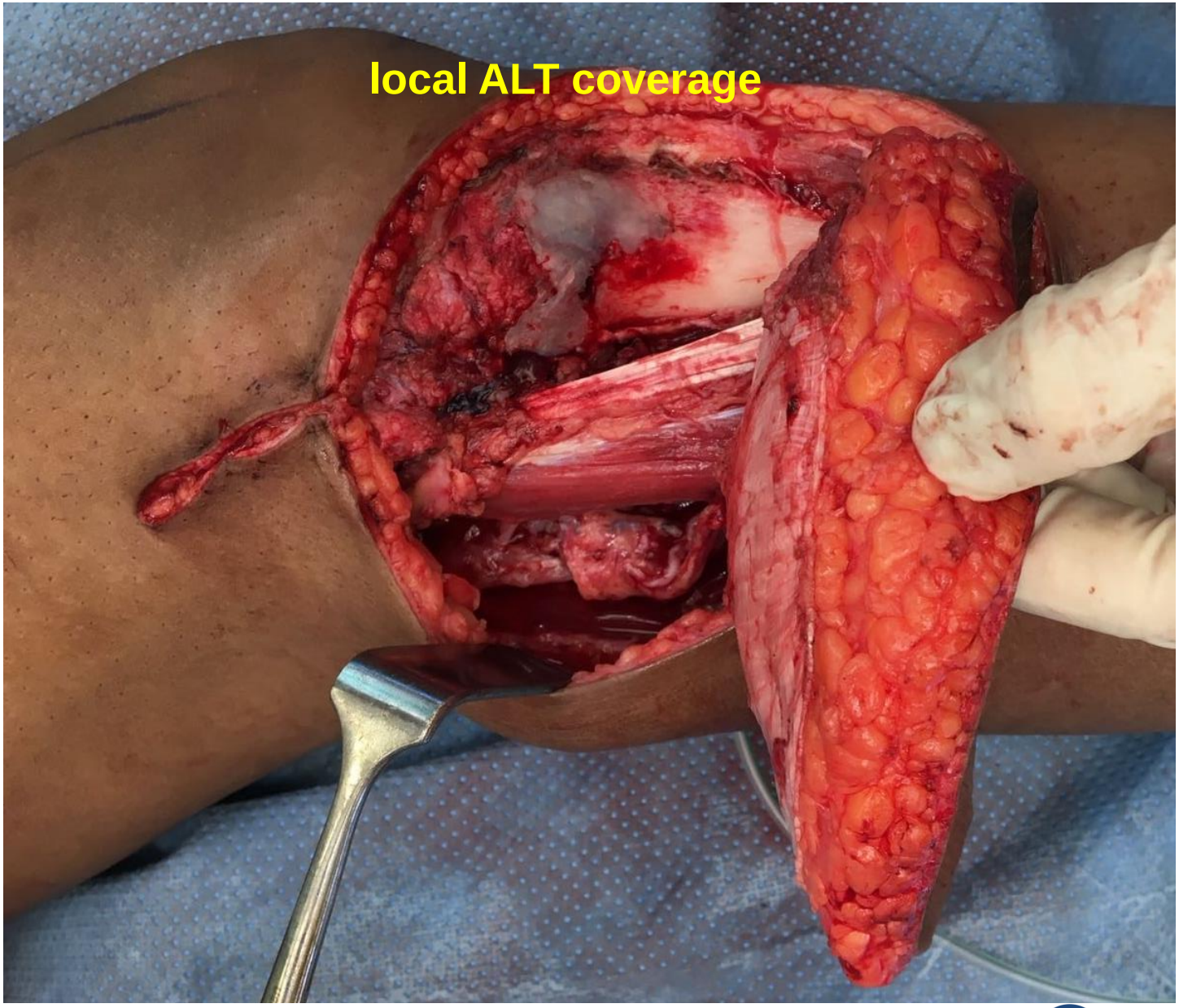


June 15, 2018

SarcomaSurgery


micro-vascular anastomoses to posterior tibial A.V. vessels

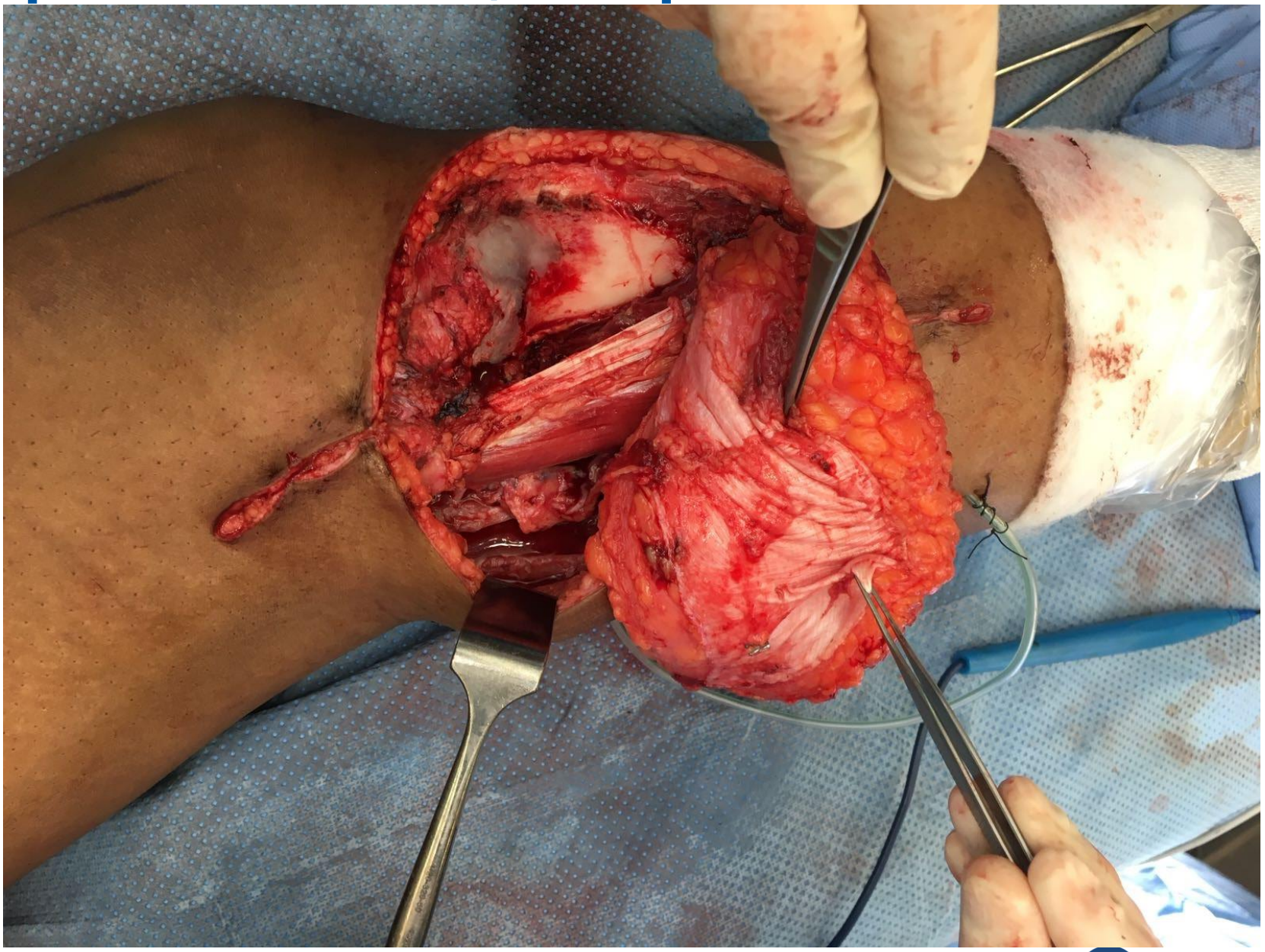
proximal fibula; complex reconstruction



June 15, 2018

SarcomaSurgery

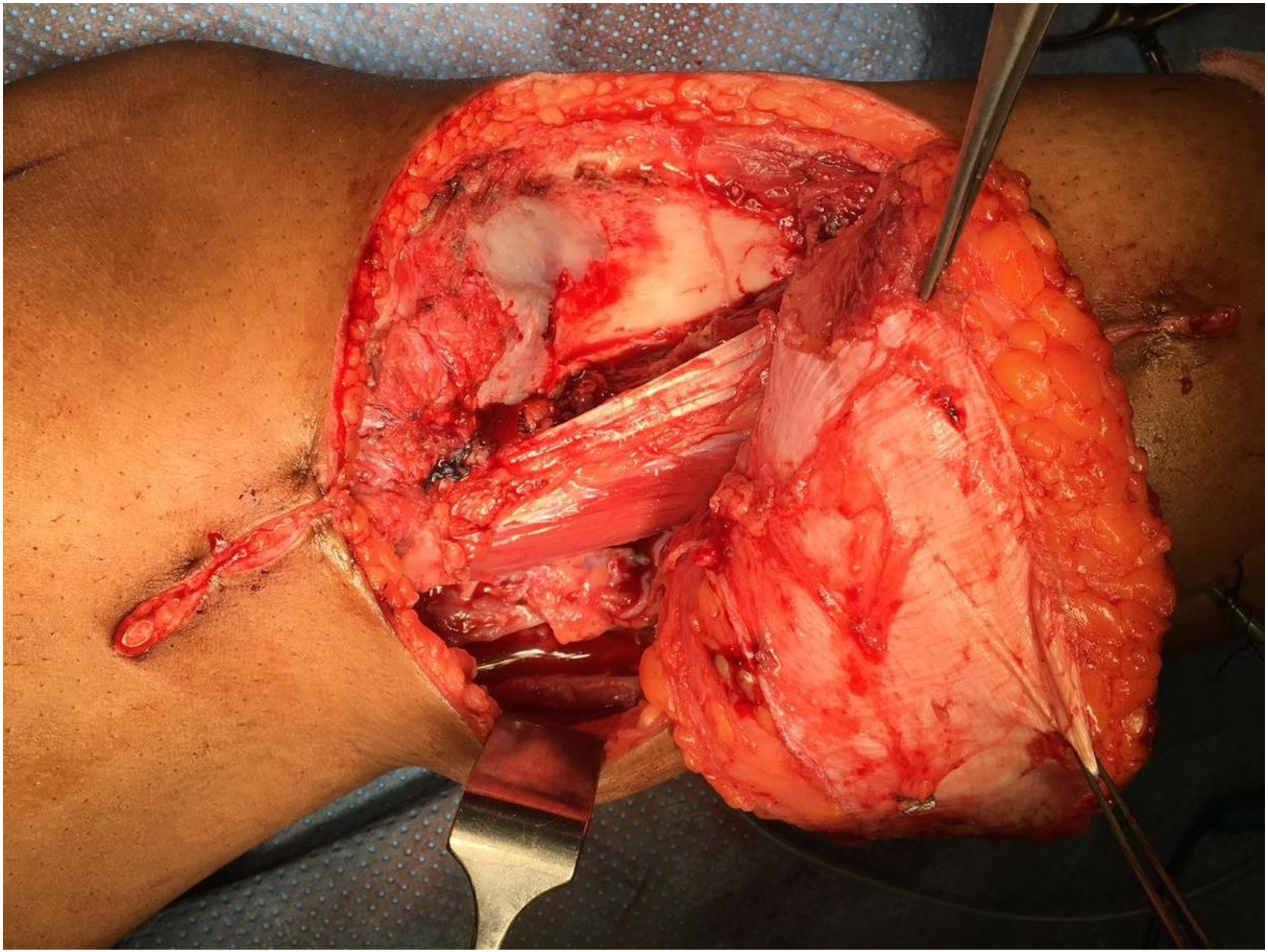
proximal fibula; complex reconstruction



June 15, 2018

SarcOmaSurgery

proximal fibula; complex reconstruction



June 15, 2018

SarcOmaSurgery

proximal fibula; complex reconstruction

June 15, 2018

SarcomaSurgery

proximal fibula; complex reconstruction

June 15, 2018

SarcomaSurgery