

Scapula; forequarter extended chest wall lung

41 yo female

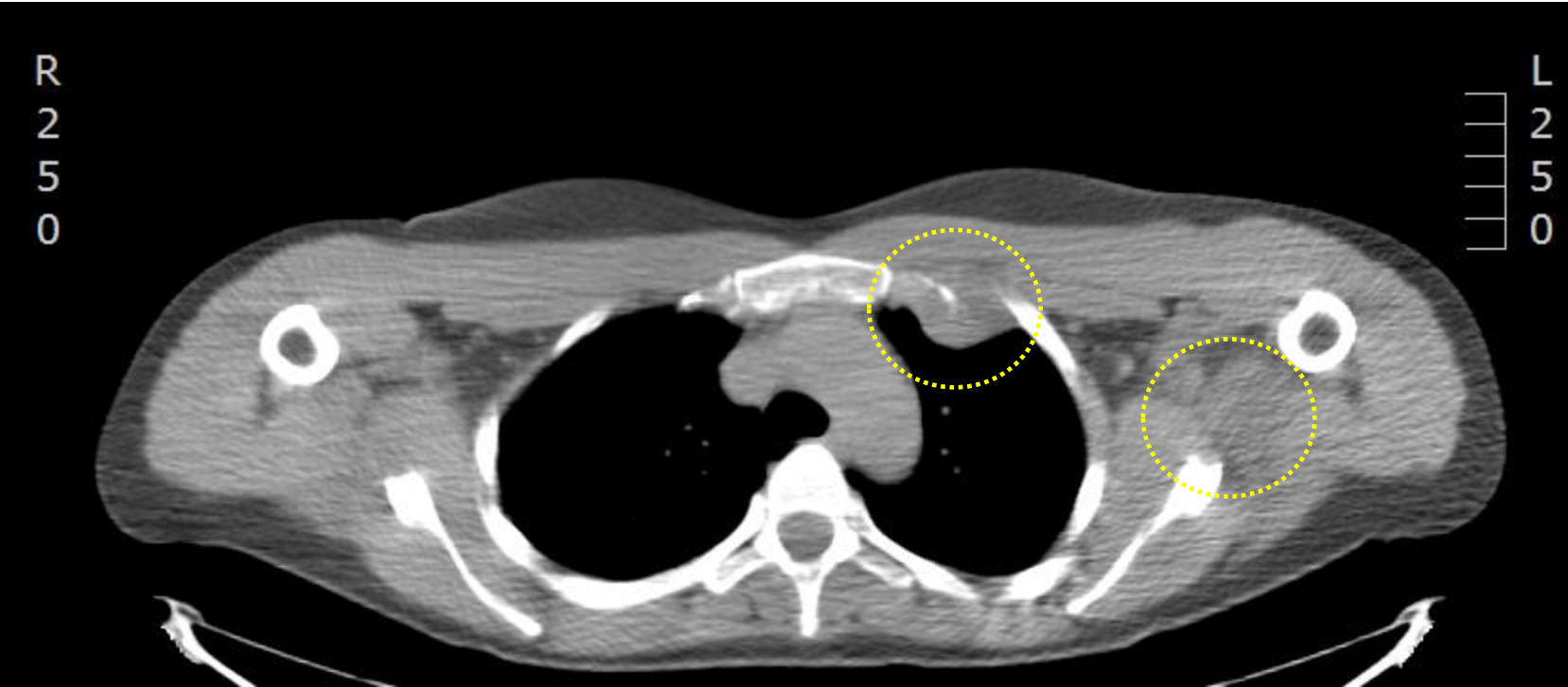
1st referral: May 6th 2015

HPI:

- First notice of palpable mass left shoulder 2002
- Tumorectomy June 2002 (Desmoid tumor)
- Recurrence June 2004
- Infraclavicular Plexusrevision, tumor excision, R1 resection Jan 2005
- Tumor recsection chest wall, costae I+II Feb 2005
- RT 50.4 Gy (28x1.8) March-April 2005
- Antihormonal Therapy: Nolvadex 20mg daily July 2008- Jan 2009
- Glivec 400mg daily March 2011 – Aug 2011
- MTX/Velbe March 2012 – May 2012 w/o response
- Tumordebulking chest wall + axilla May 2012
- MRI Thorax Aug 2014 + Jan 2015: further progression
- Current: Dysaesthesia left hand, irritative cough

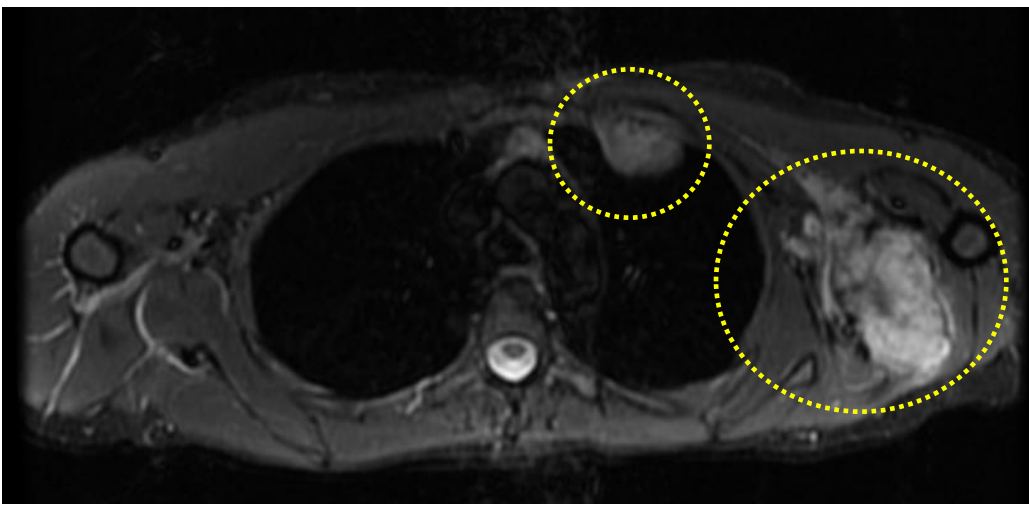
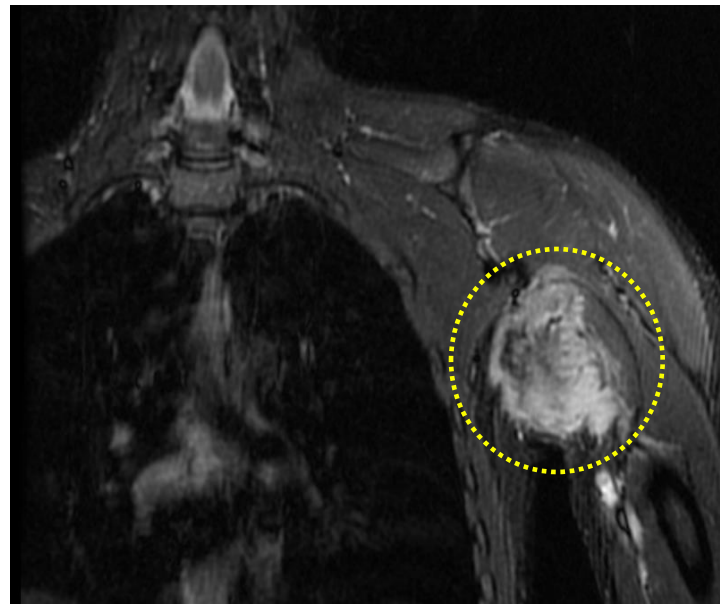
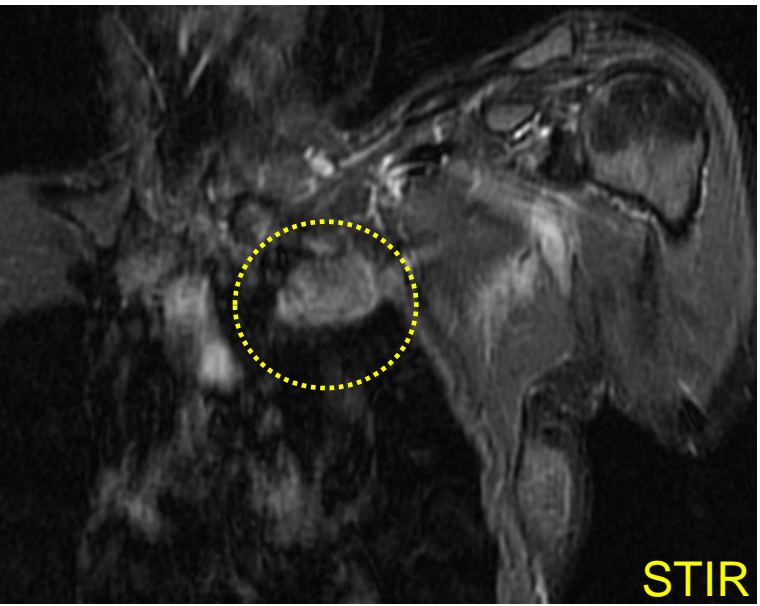
Scapula; forequarter extended chest wall lung

CT June 3rd 2004



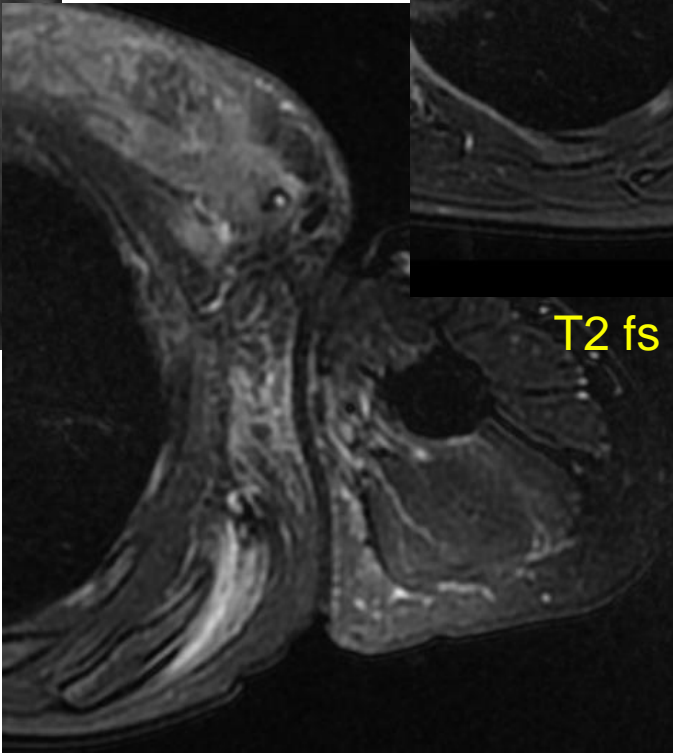
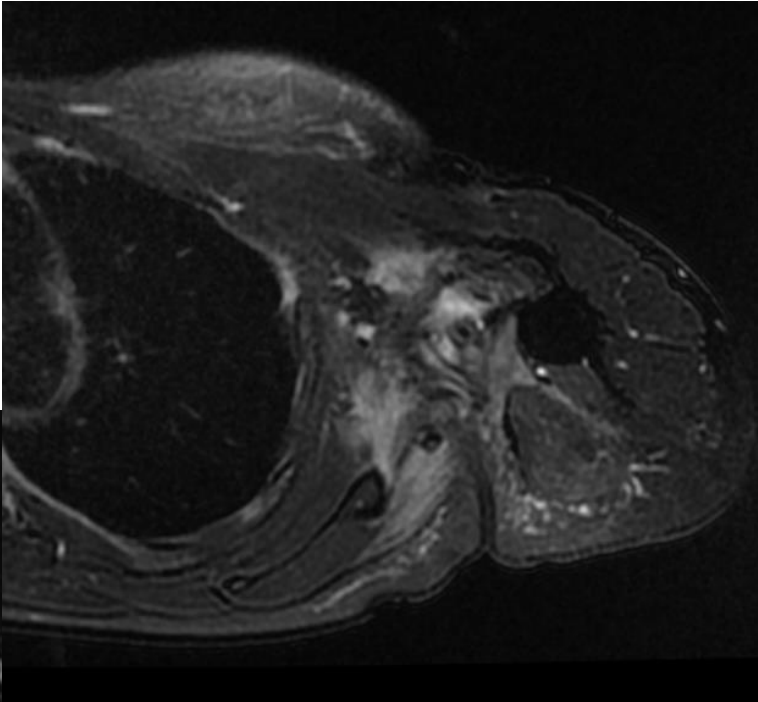
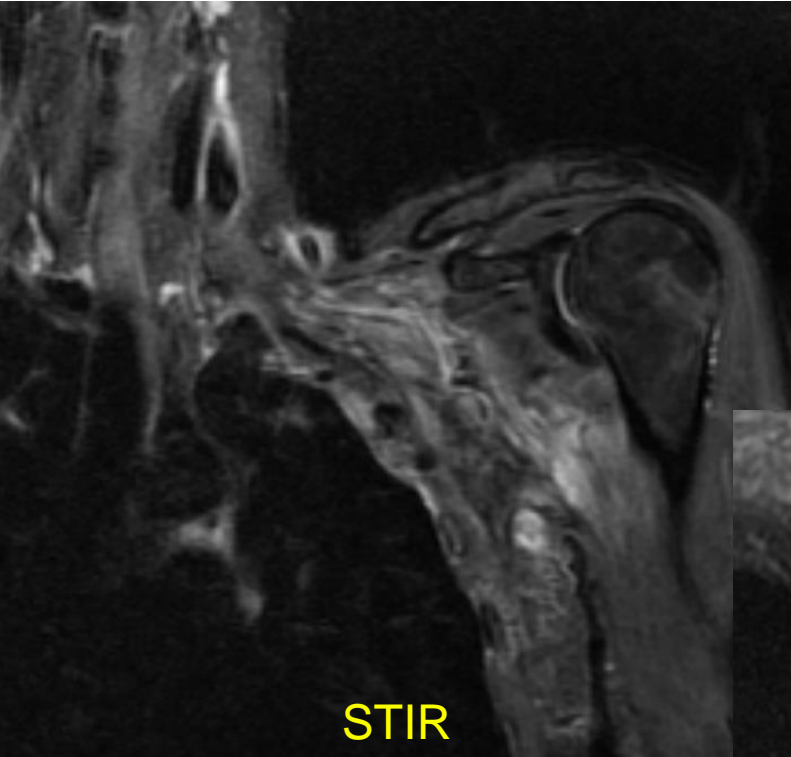
Scapula; forequarter extended chest wall lung

MRI Jan 13th 2005



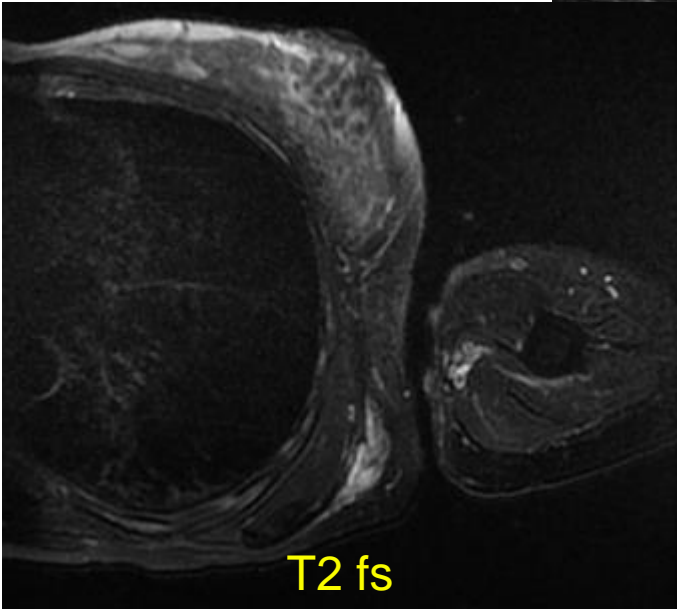
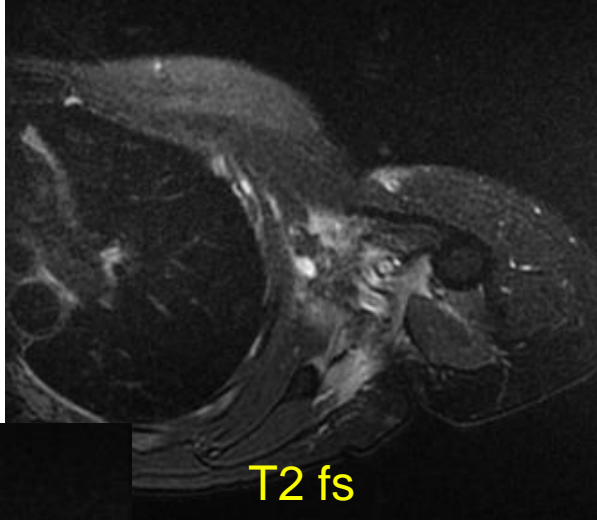
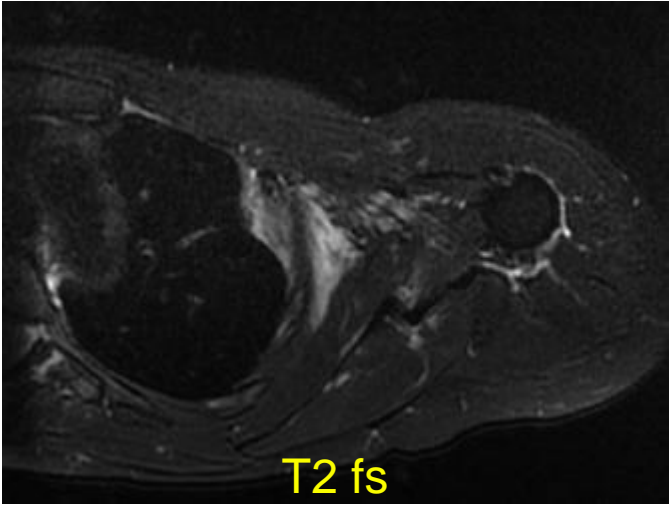
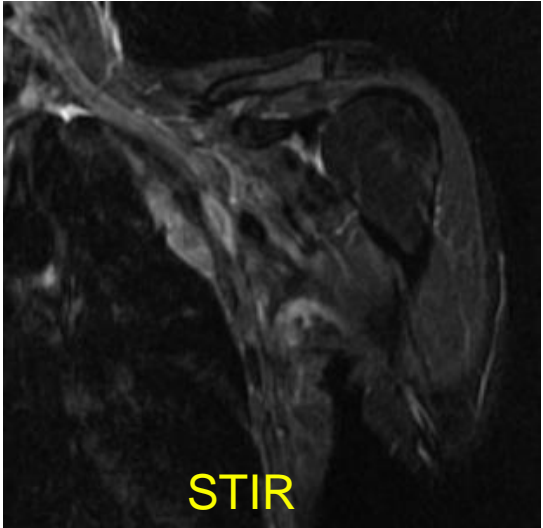
Scapula; forequarter extended chest wall lung

MRI Dec 15 2005



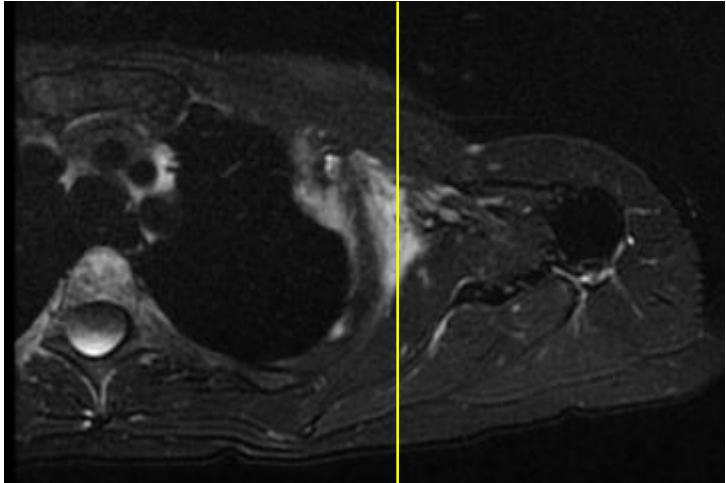
Scapula; forequarter extended chest wall lung

MRI June 8th 2006

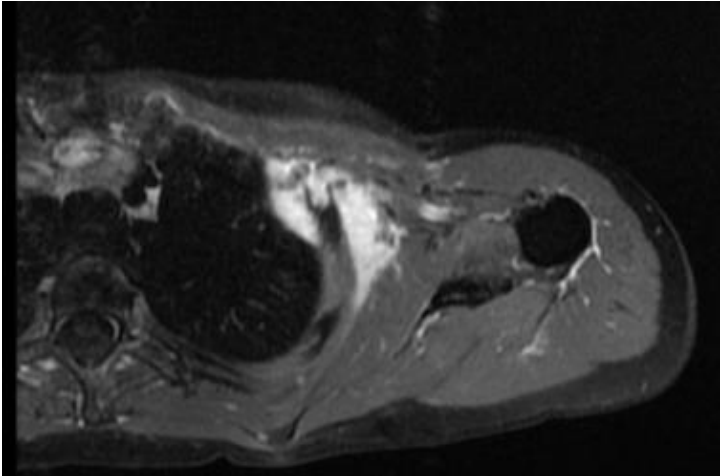


Scapula; forequarter extended chest wall lung

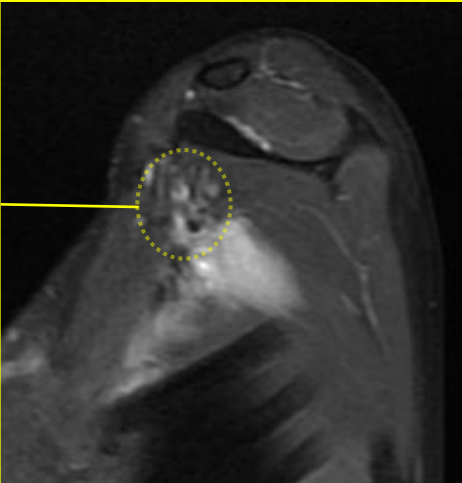
MRI Nov 30th 2006



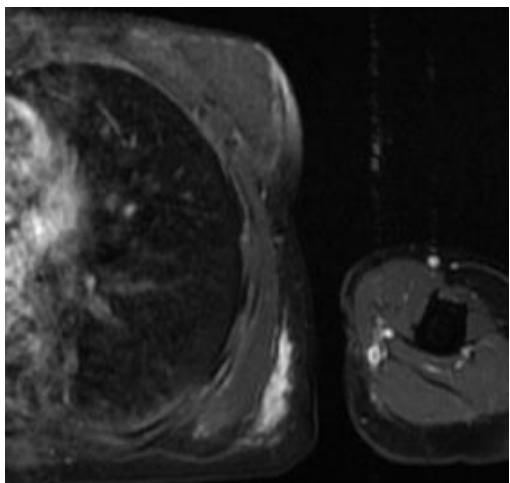
T2 fs



T1 fs +km



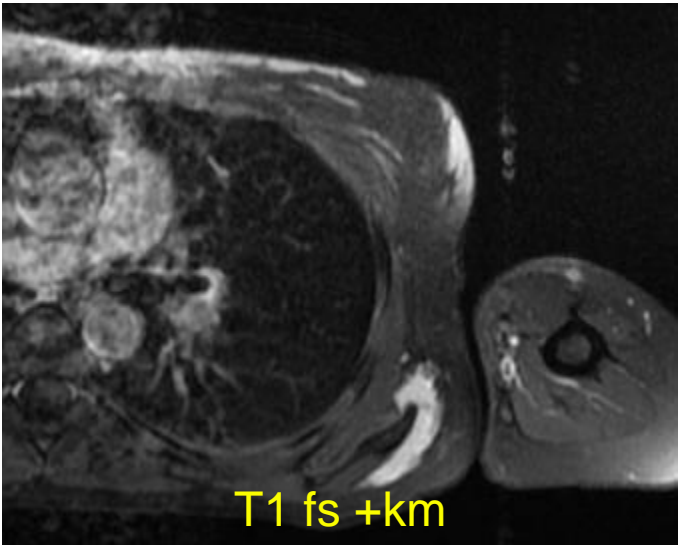
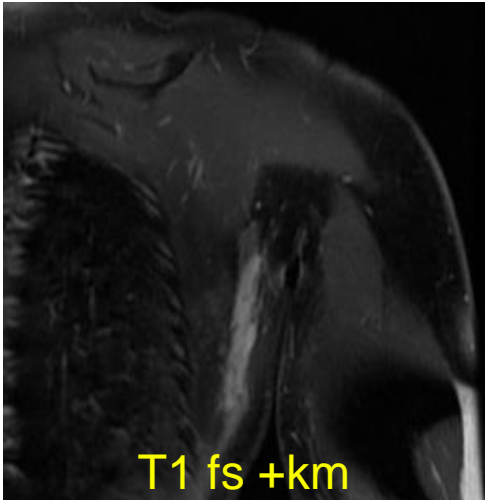
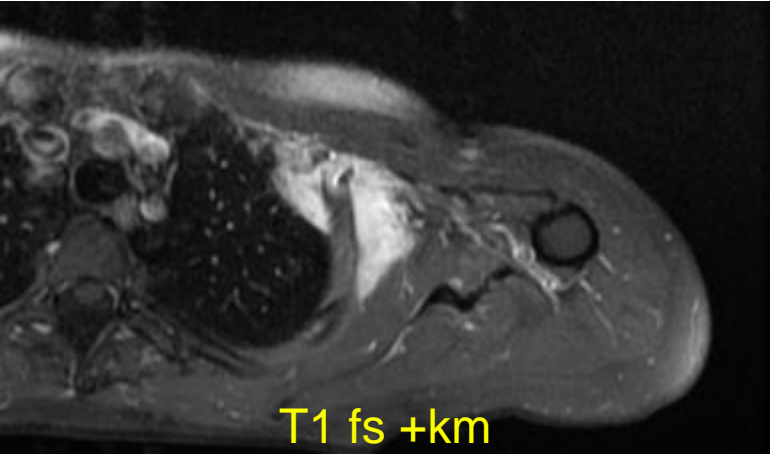
Neurovascular bundle



T1 fs +km

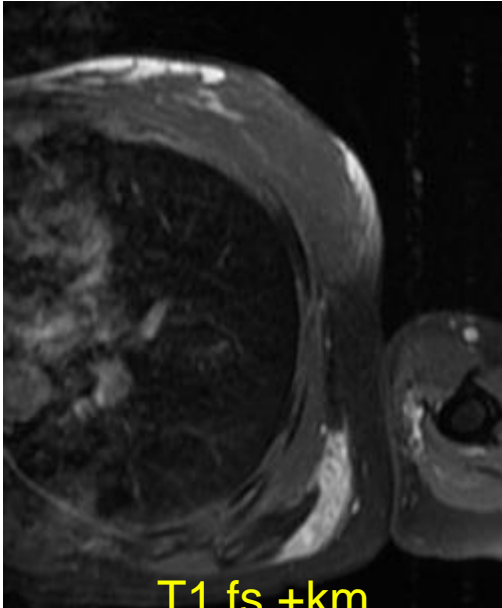
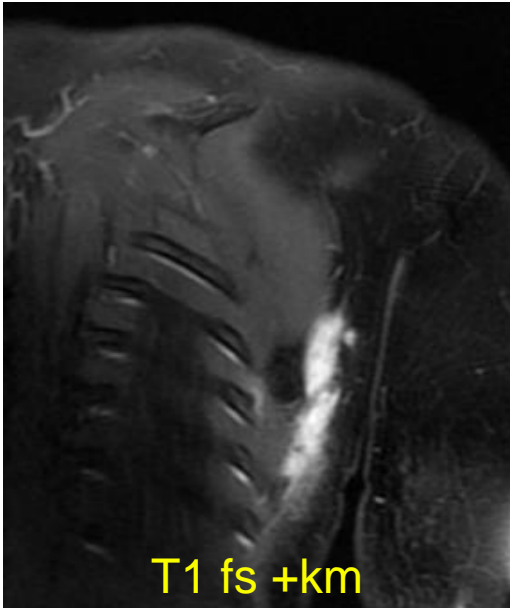
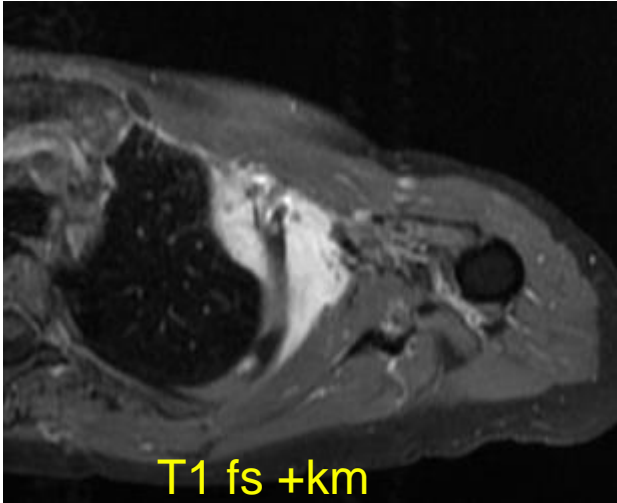
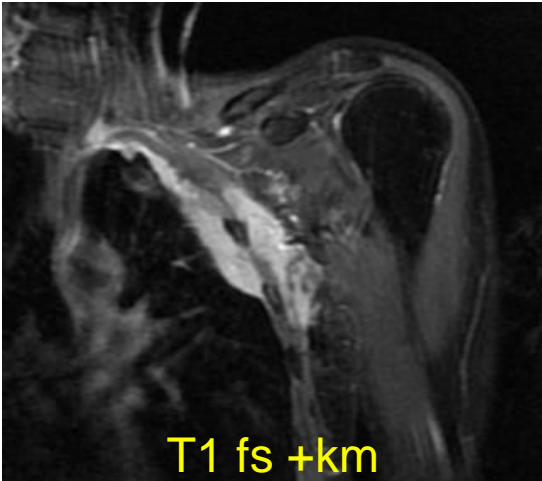
Scapula; forequarter extended chest wall lung

MRI April 11th 2007



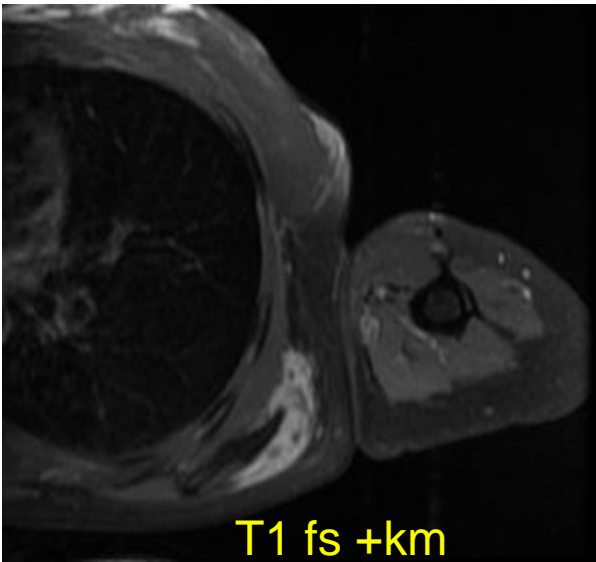
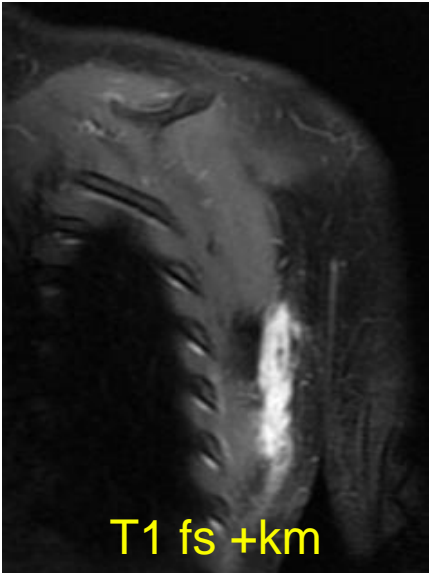
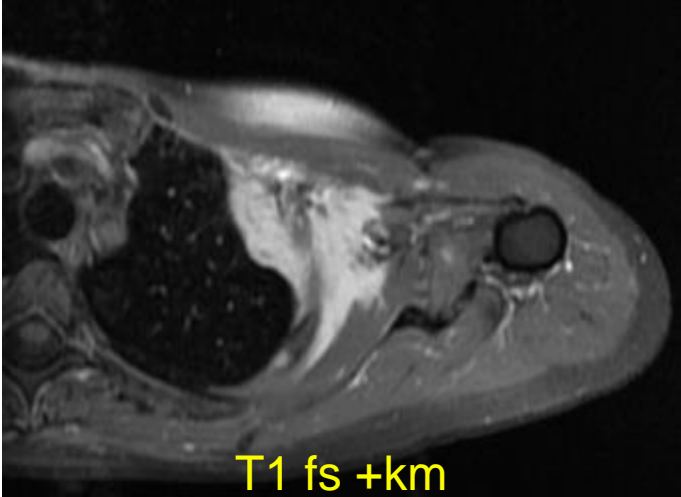
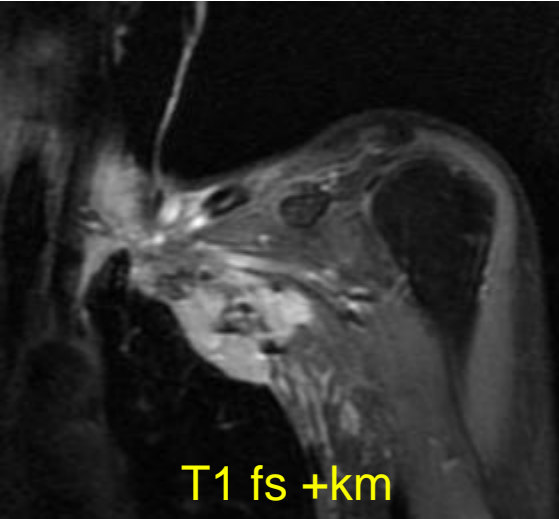
Scapula; forequarter extended chest wall lung

MRI August 30th 2007



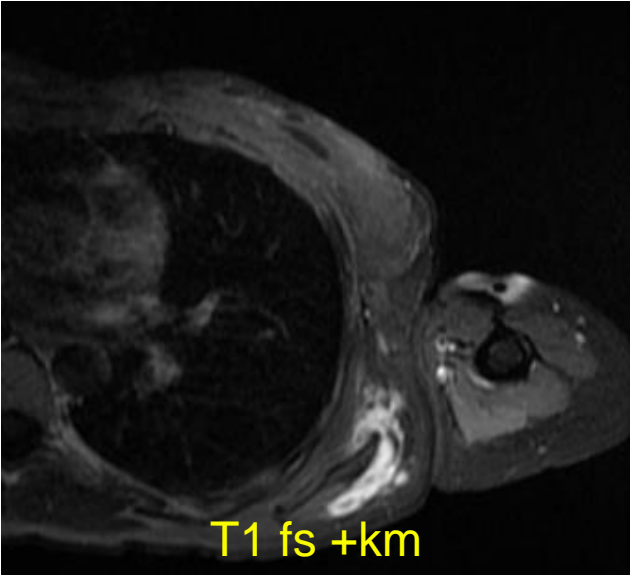
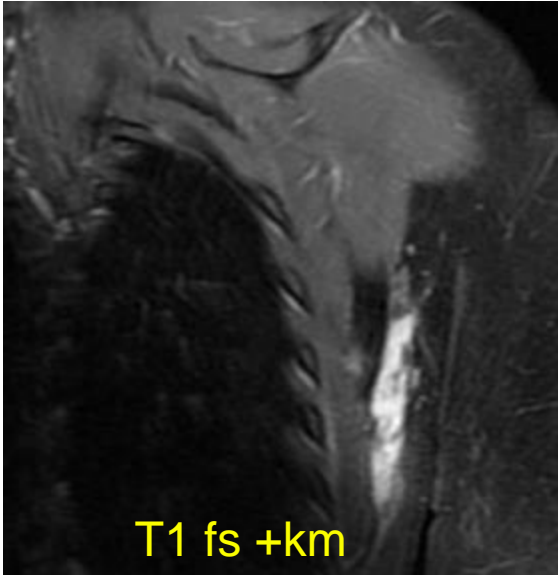
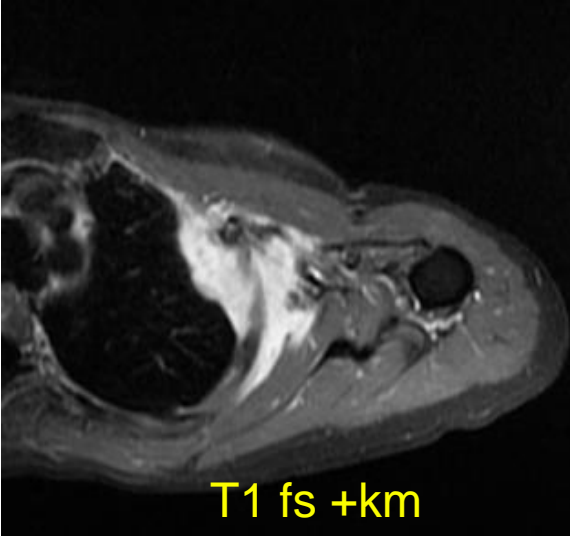
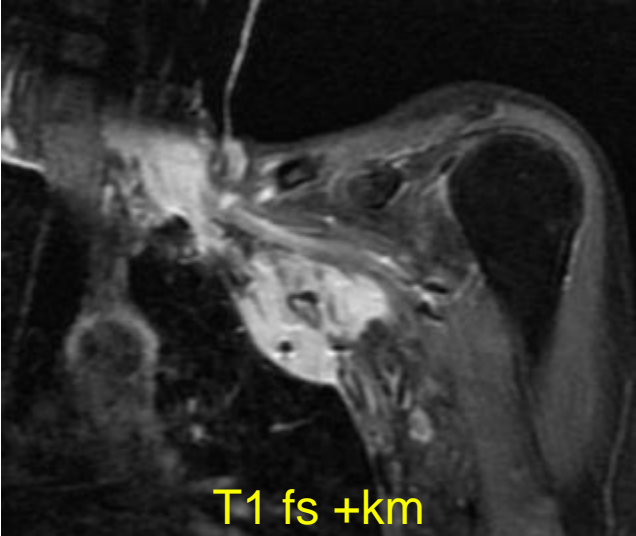
Scapula; forequarter extended chest wall lung

MRI April 15th 2008



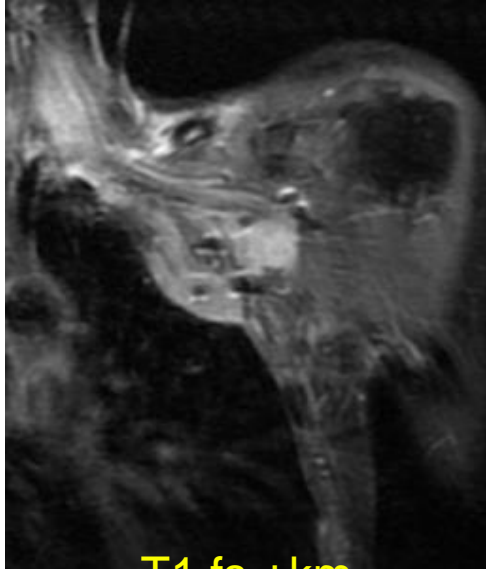
Scapula; forequarter extended chest wall lung

MRI June 30th 2008

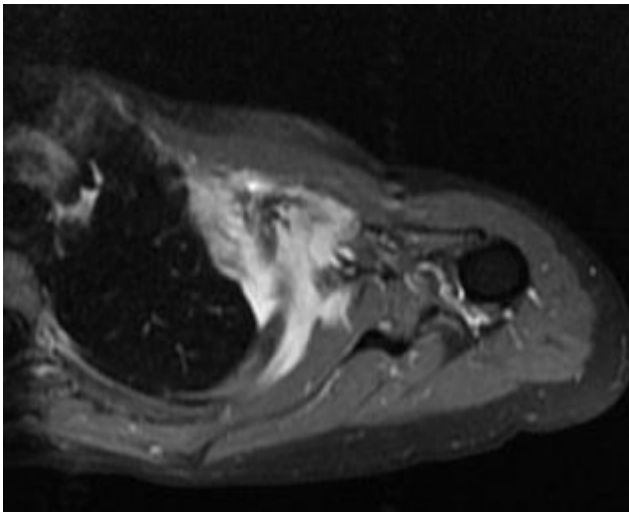


Scapula; forequarter extended chest wall lung

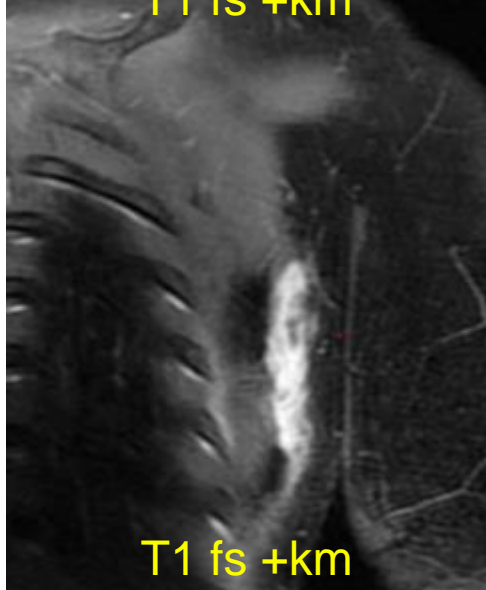
MRI Sept 30th 2008



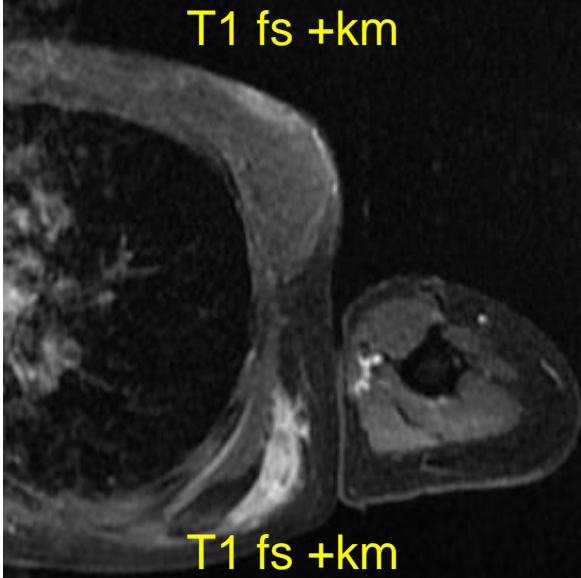
T1 fs +km



T1 fs +km



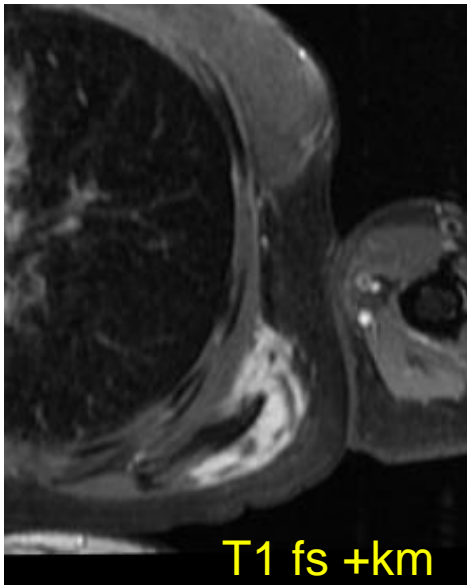
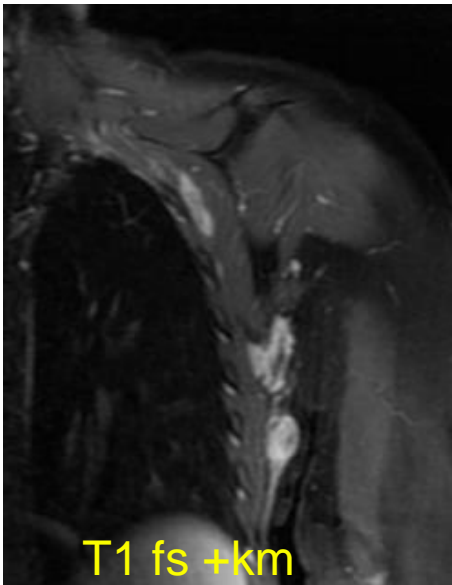
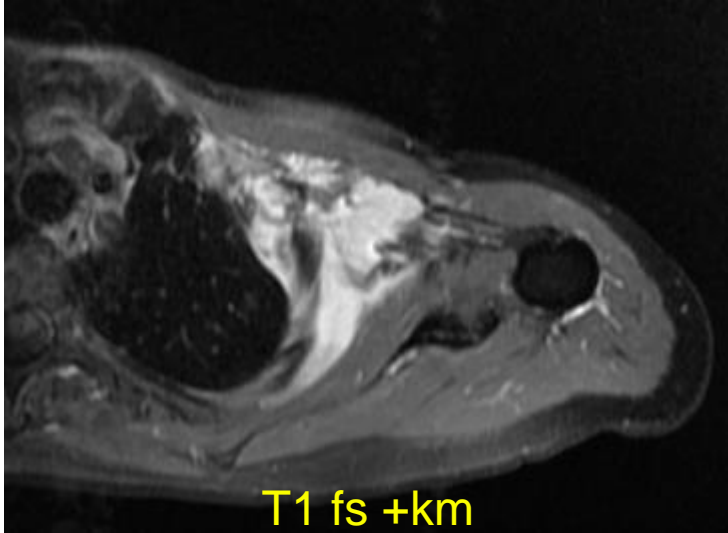
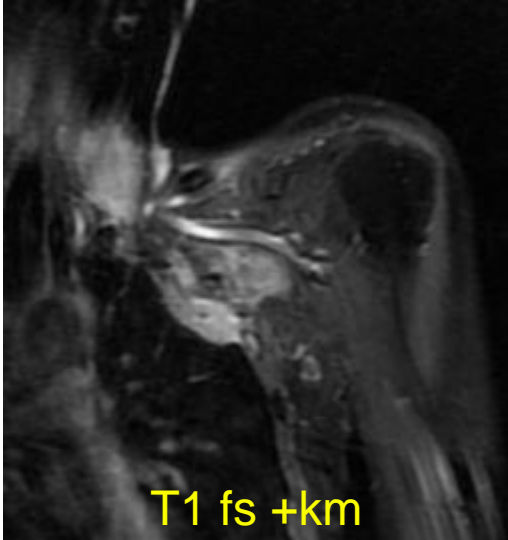
T1 fs +km



T1 fs +km

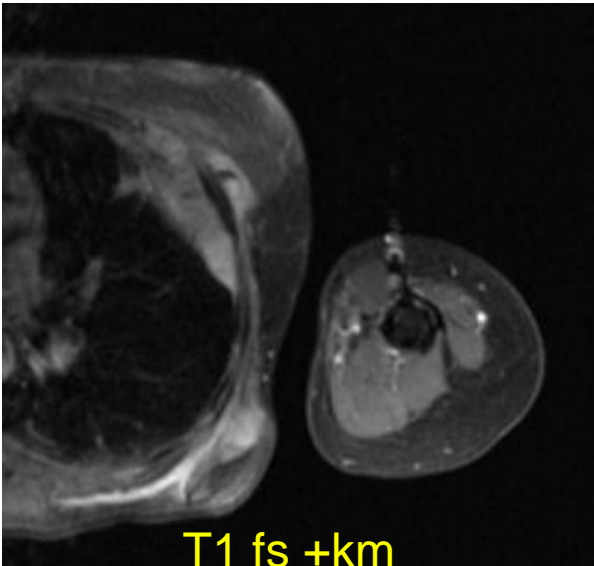
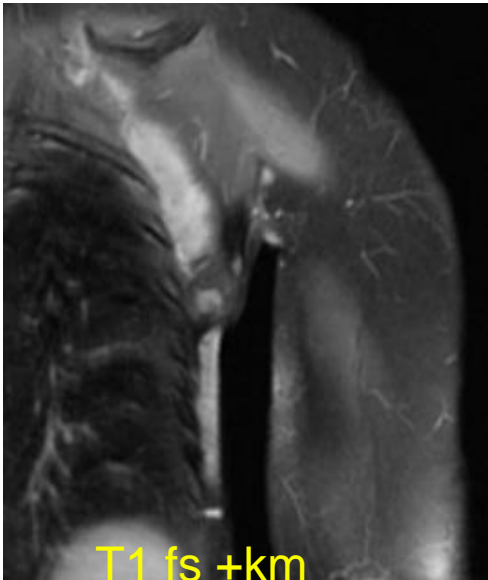
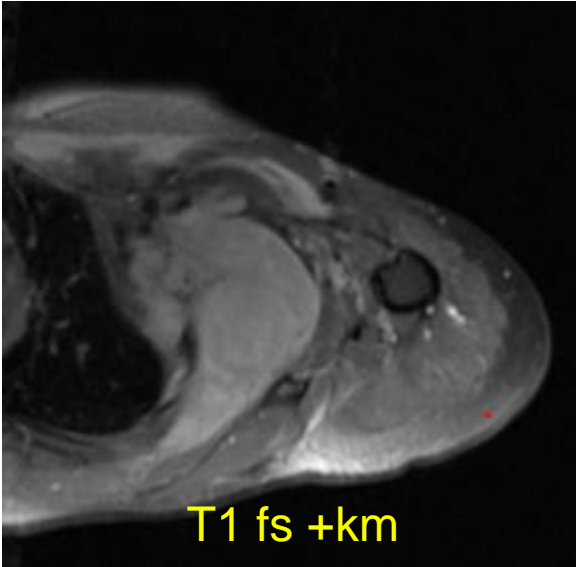
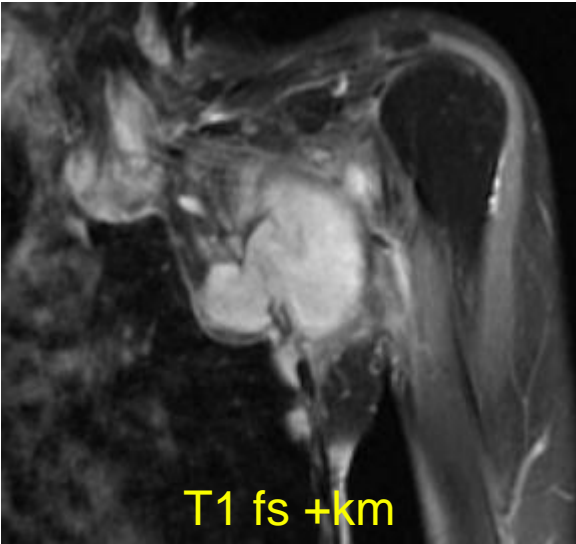
Scapula; forequarter extended chest wall lung

MRI Jan 7th 2009



Scapula; forequarter extended chest wall lung

MRI Dec 4th 2013



Scapula; forequarter extended chest wall lung MRI August 27th 2014

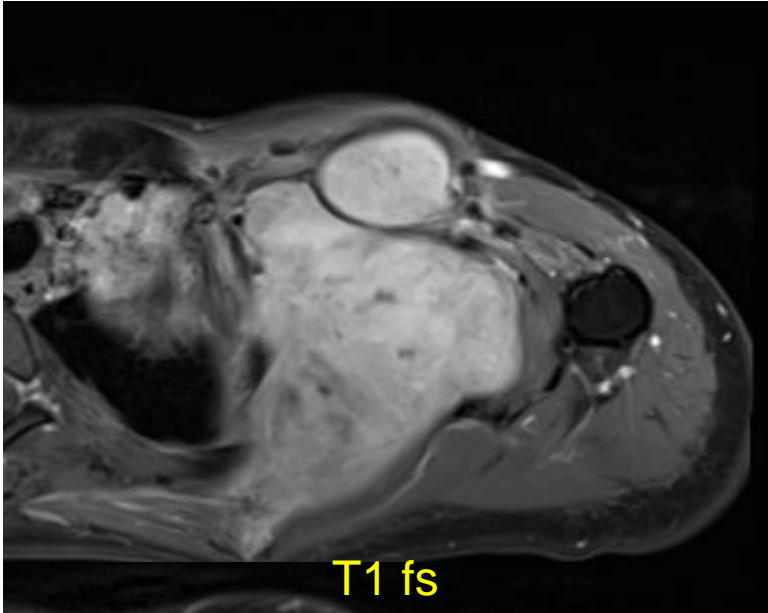


Scapula; forequarter extended chest wall lung

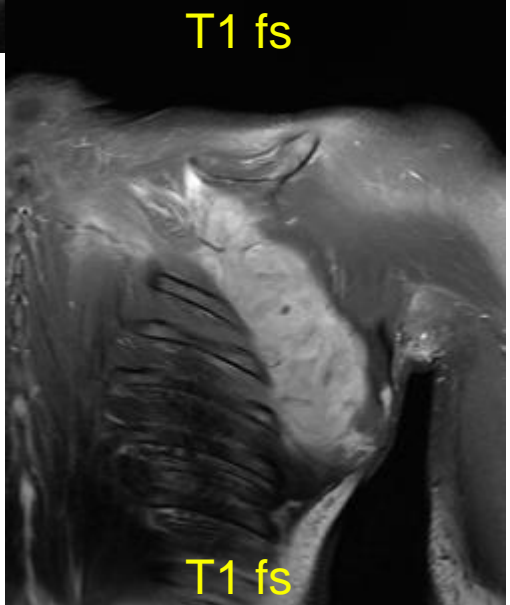
MRI January 7th 2015



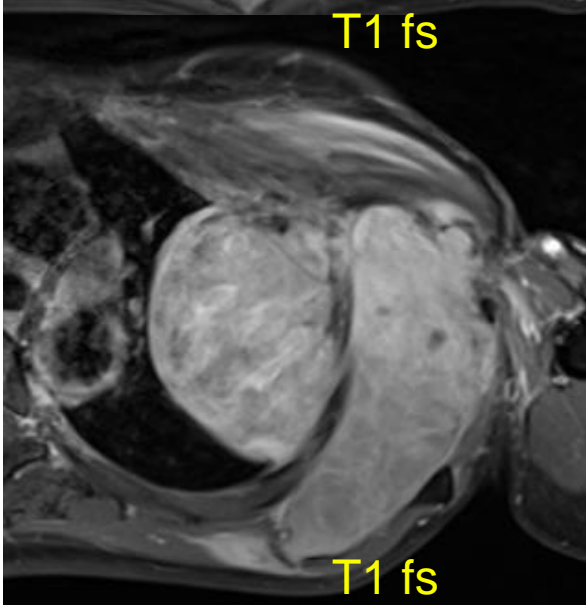
T1 fs



T1 fs



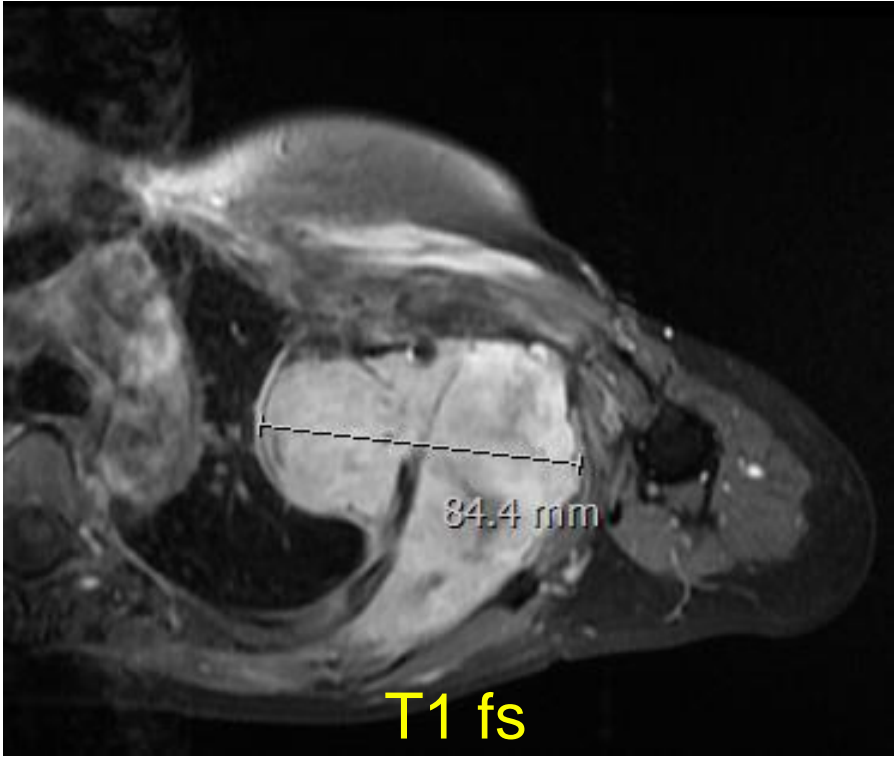
T1 fs



T1 fs

Scapula; forequarter extended chest wall lung

MRI Thorax May 6th 2015



Scapula; forequarter extended chest wall lung



Scapula; forequarter extended chest wall lung

Radiotherapie:

Hyprosar: Nein

Die Möglichkeiten der Bestrahlung sind ausgeschöpft. Ein Grossteil des Tumor liegt im ursprünglichen Strahlenfeld.

Chirurgie:

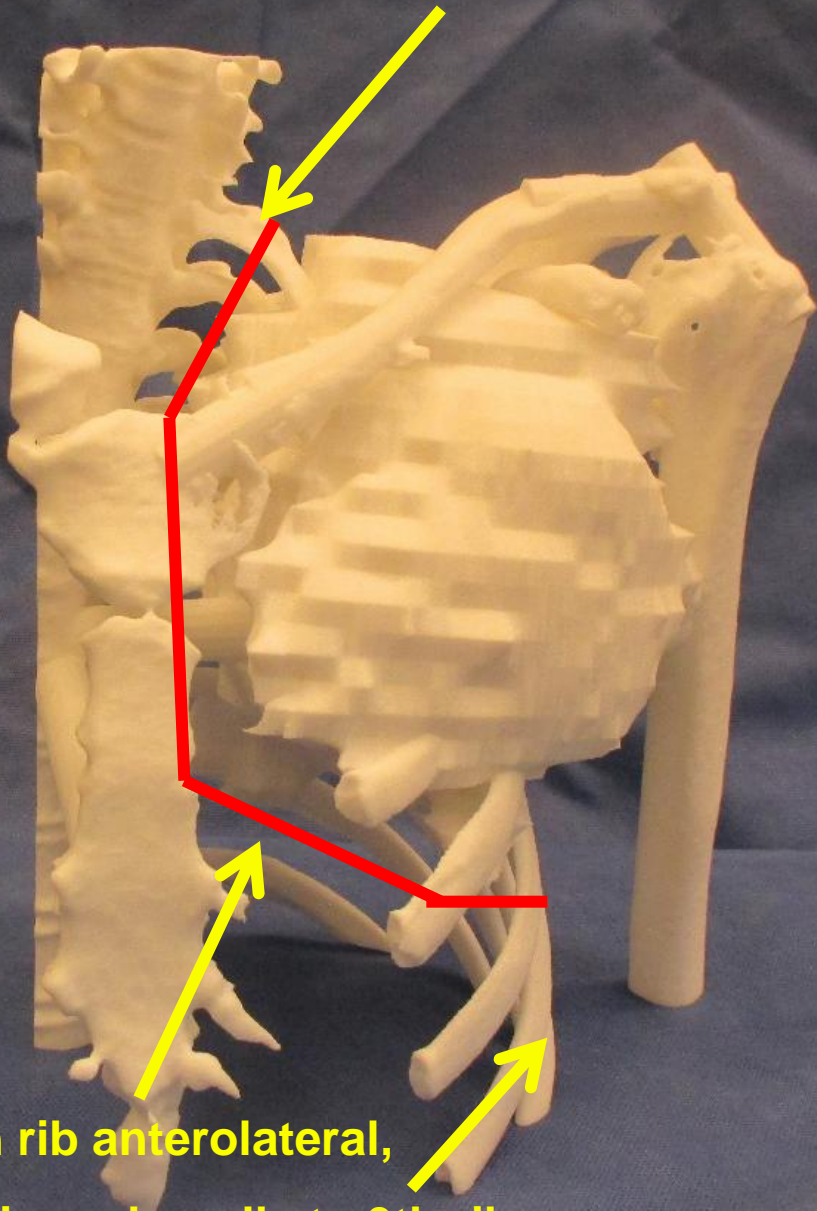
Die Resektion und Rekonstruktion wird von D. Schneiter, B. Fuchs und P. Giovanoli geplant. Dr. Calcagni weist darauf hin, dass die Hautveränderung an der ventralen Thoraxseite ein Indiz sein könnte, dass dort schon einmal etwas gedeckt wurde im Sinne eines Lappens, was die Operation erschweren könnte.

Organisatorisches:

Eine Besprechung der Situation, der Möglichkeiten und der weiteren Massnahmen ist für den 29.05.15 geplant. Die Patientin wurde hierfür zu Prof. P. Giovanoli aufgeboten. B. Fuchs, D. Schneiter und G. Studer werden ebenfalls anwesend sein.

3D model: anterior view

1st rib dorsally



**5th rib anterolateral,
then oblique dorsally to 9th rib**

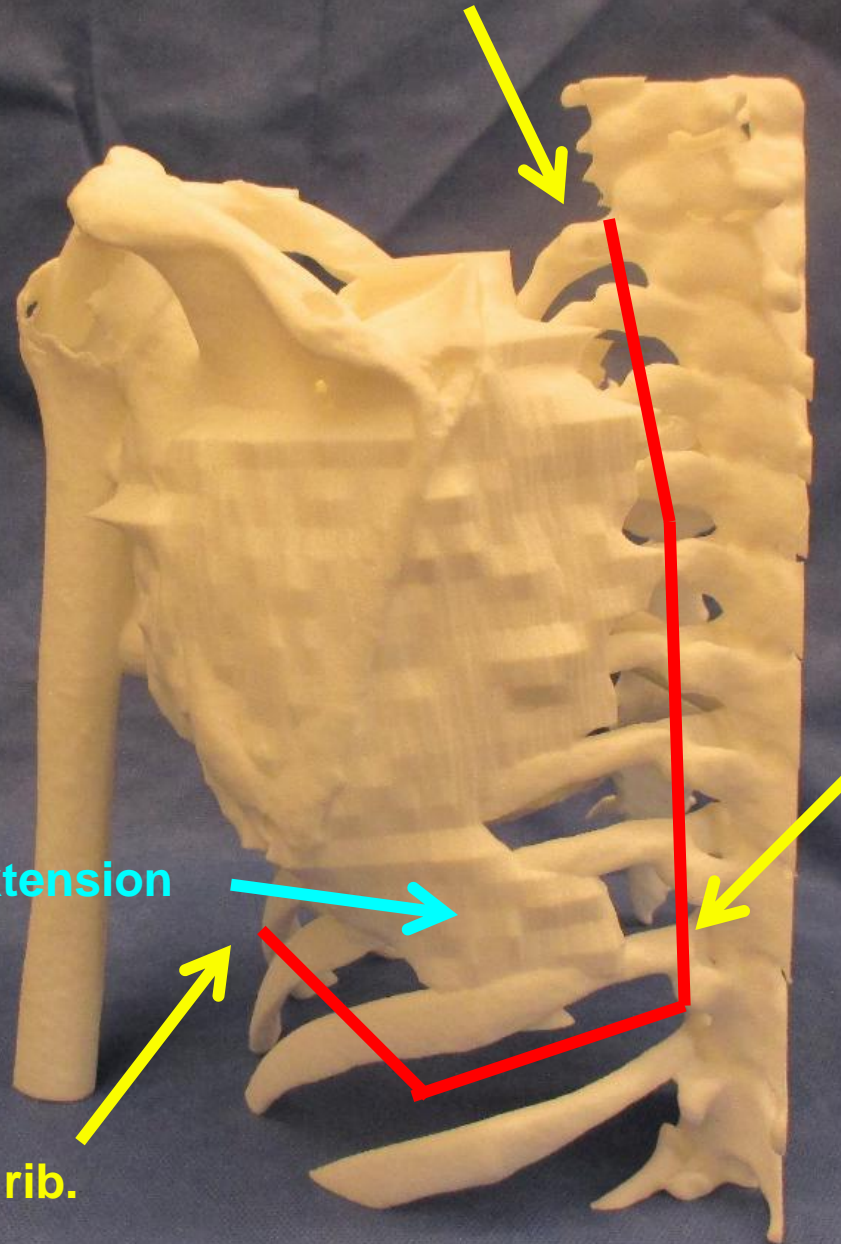
3D model: posterior view

1st rib dorsally

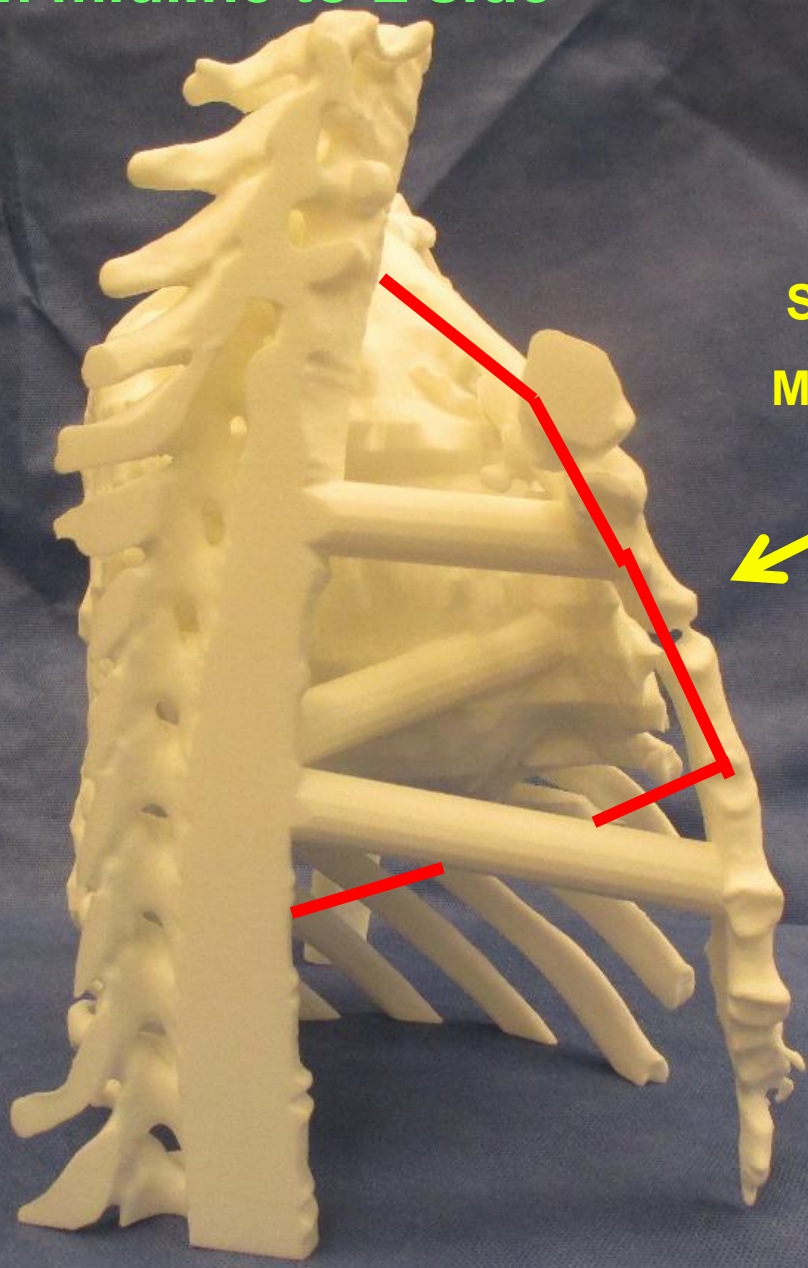
9th rib dorsally

Note tumor extension

7th rib.



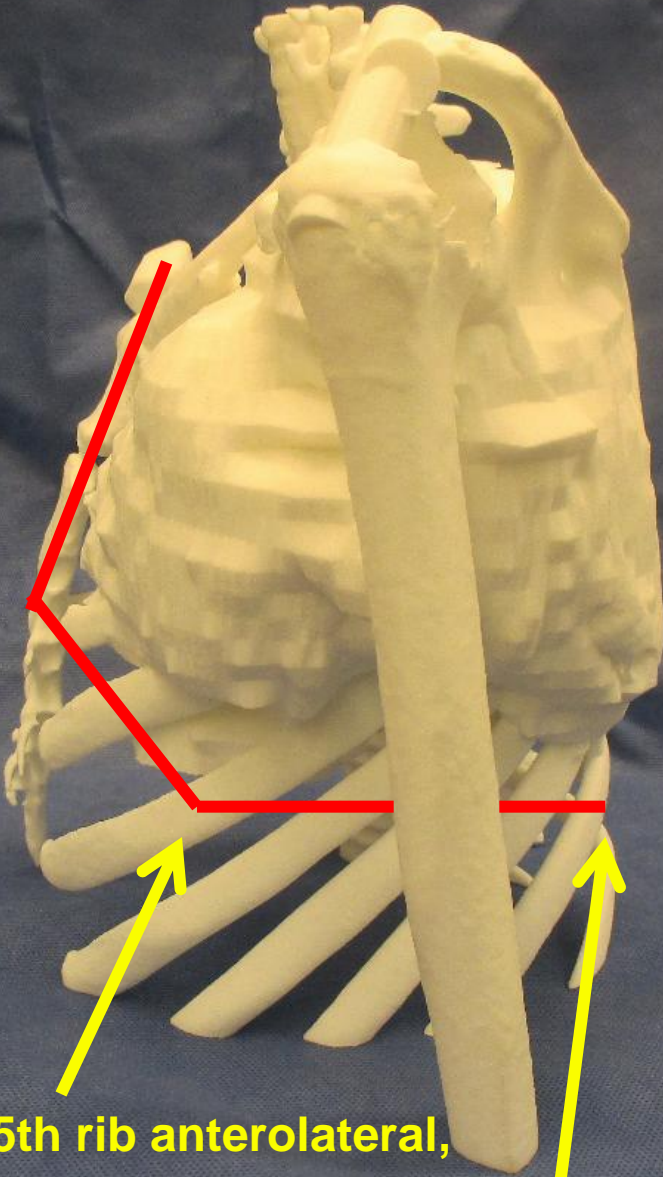
3D model: view from midline to L side



**Sternotomy through
Manubrium till 3rd rib.**



3D model: lateral view

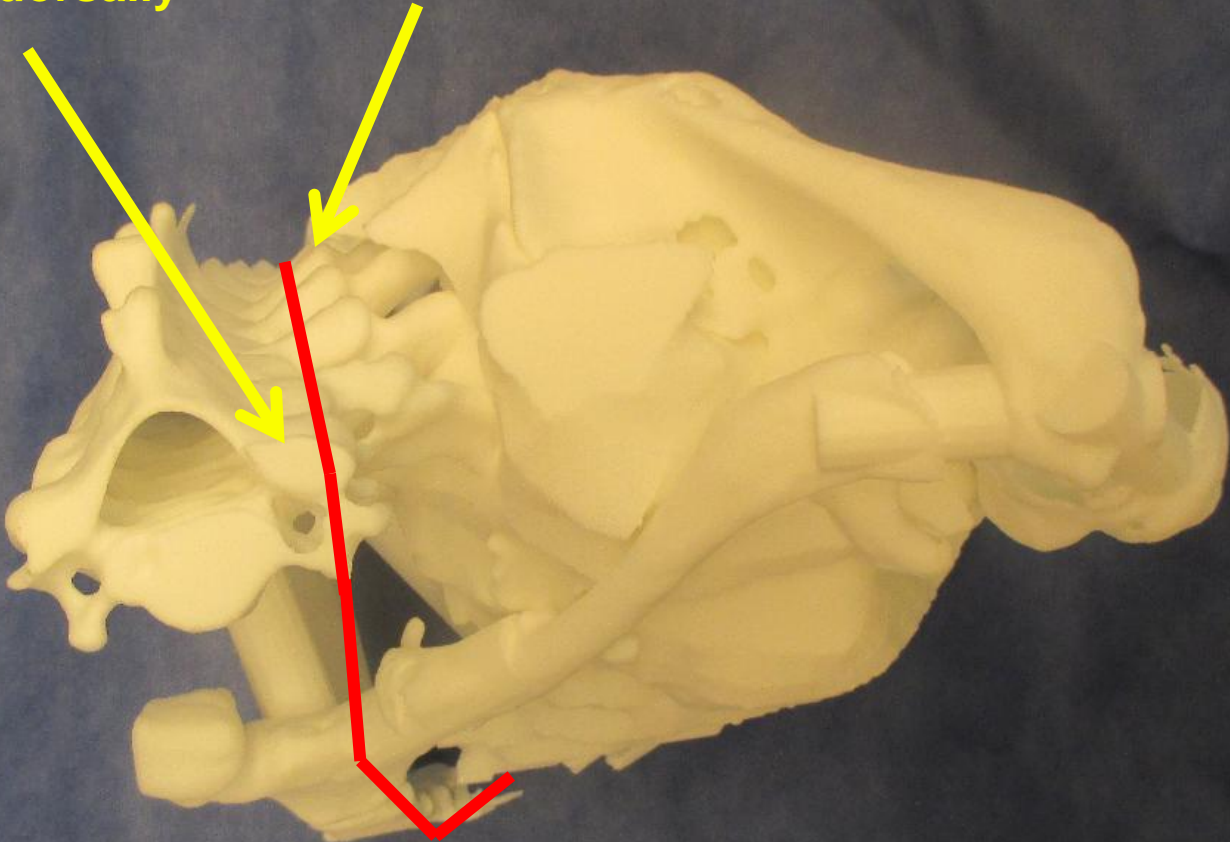


**5th rib anterolateral,
then oblique dorsally to 9th rib**

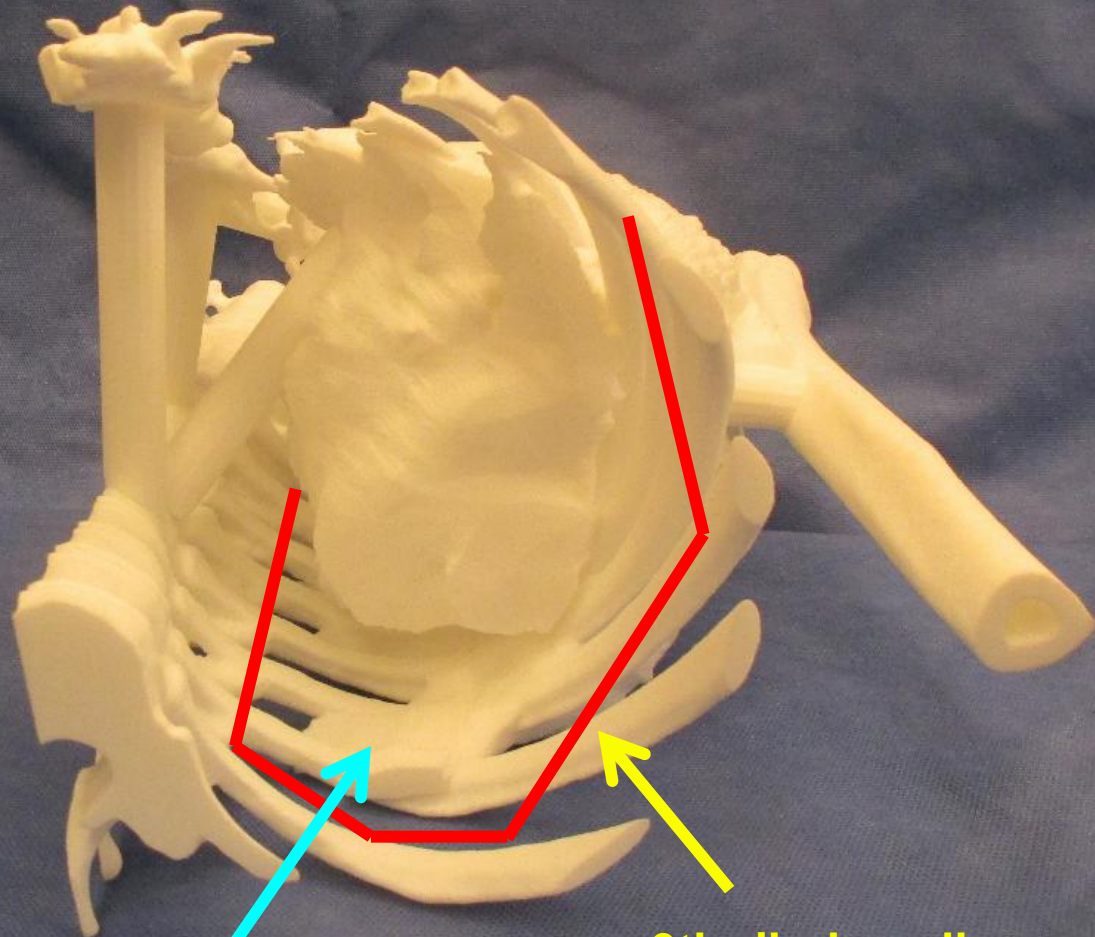
3D model: view from above

1st rib dorsally

9th rib dorsally



3D model: view from below



Note tumor extension

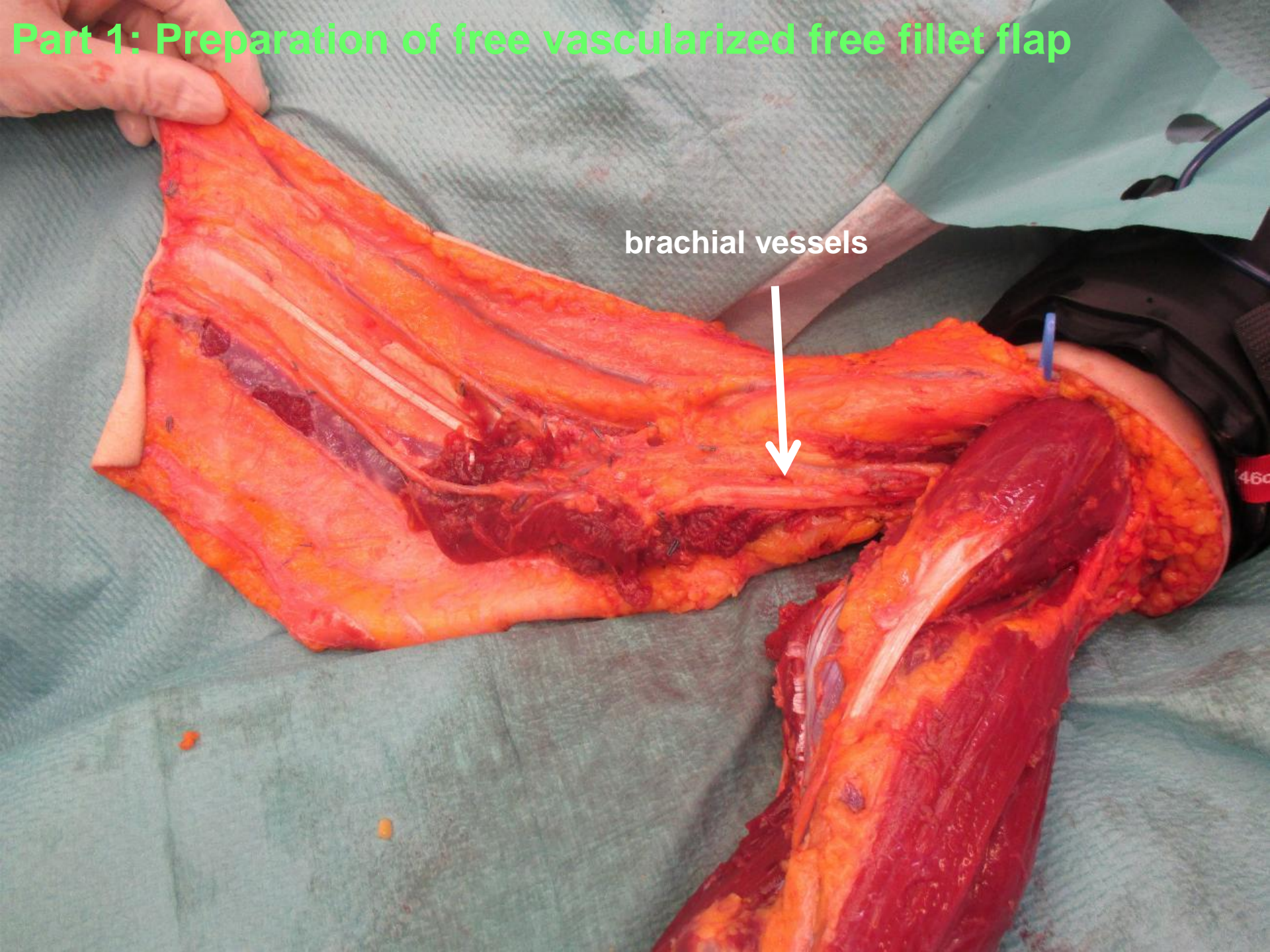
9th rib dorsally



Part 1: Preparation of free vascularized free fillet flap

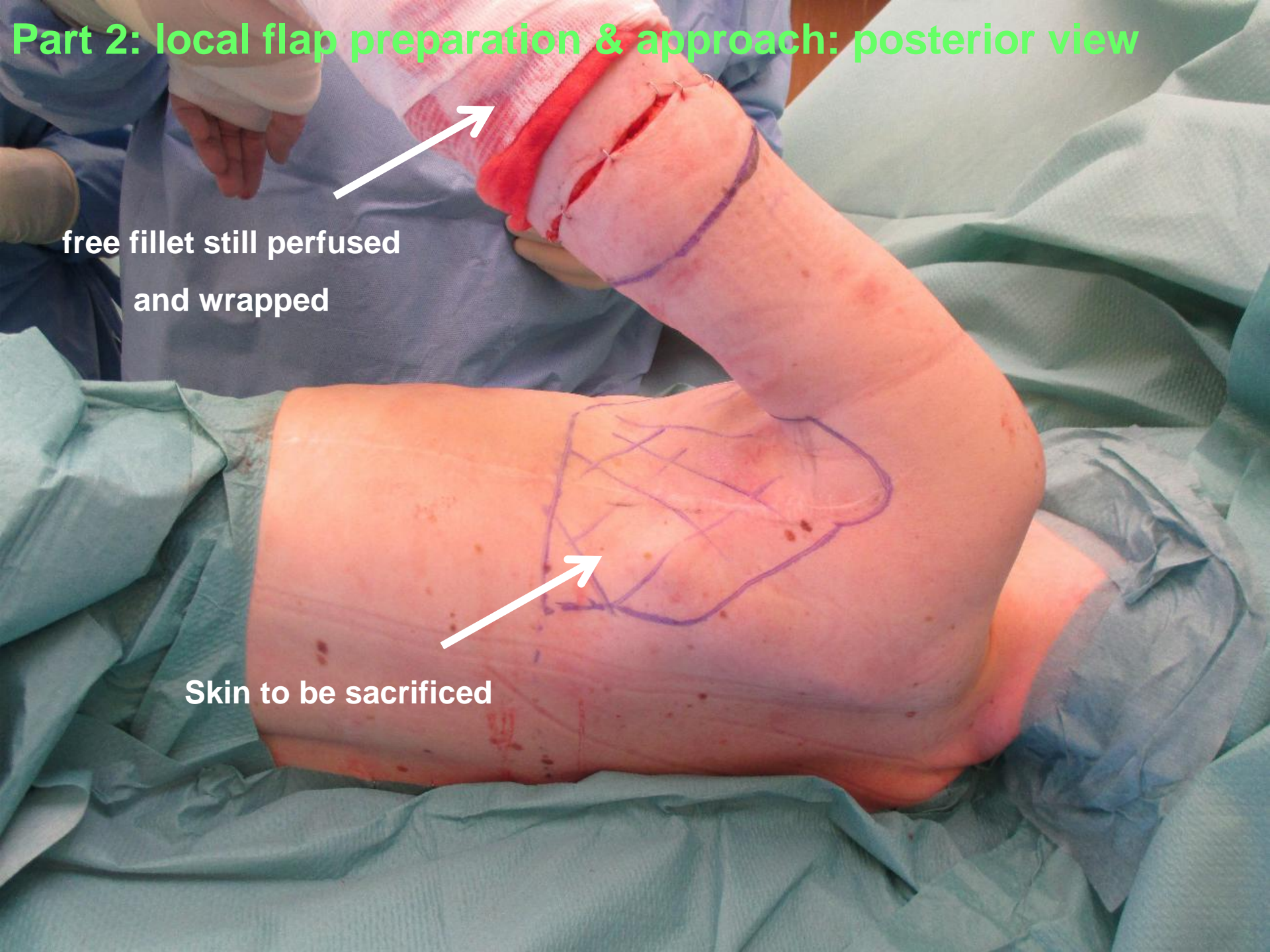


Part 1: Preparation of free vascularized free fillet flap



brachial vessels

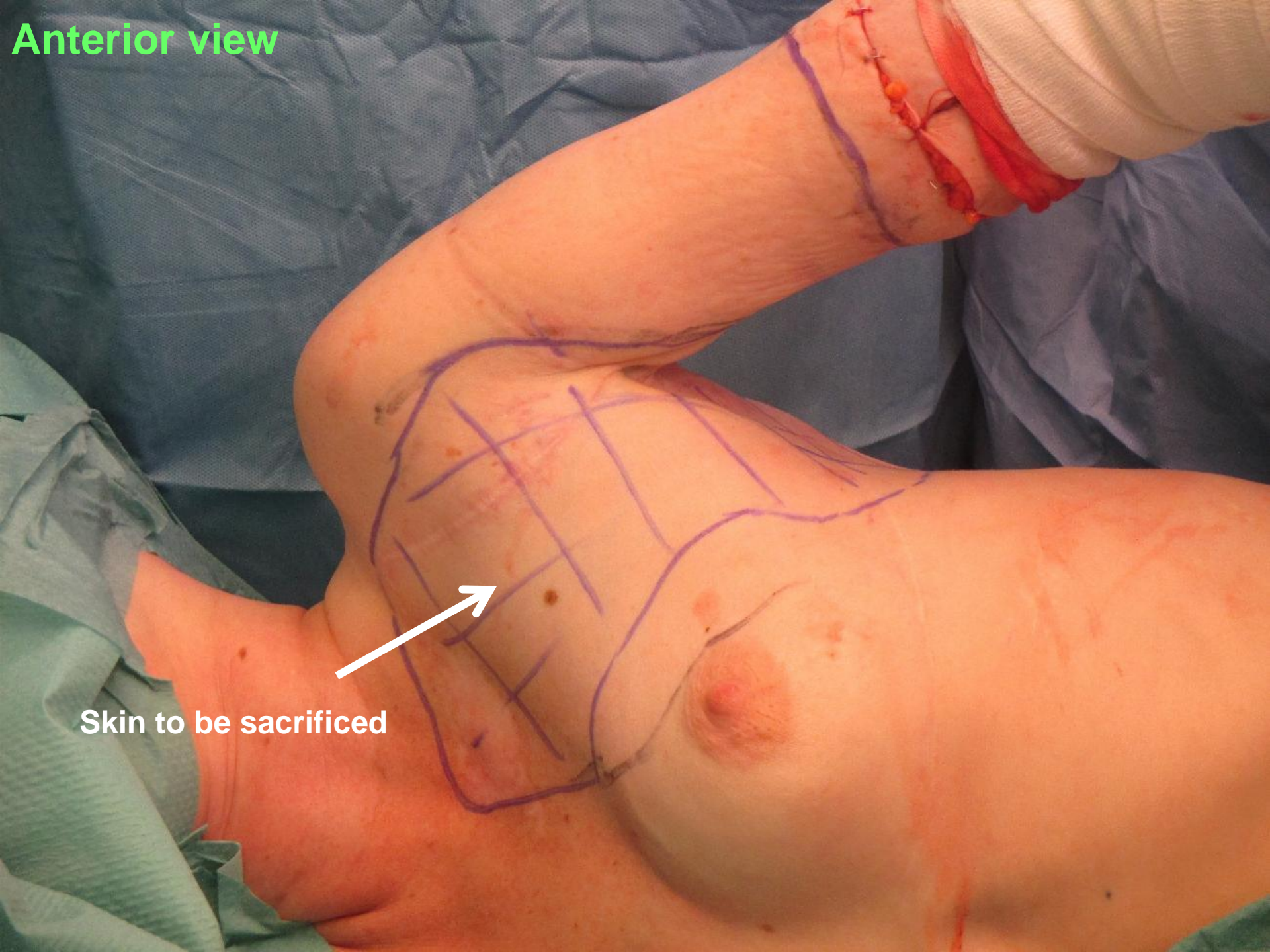
Part 2: local flap preparation & approach: posterior view



free fillet still perfused
and wrapped

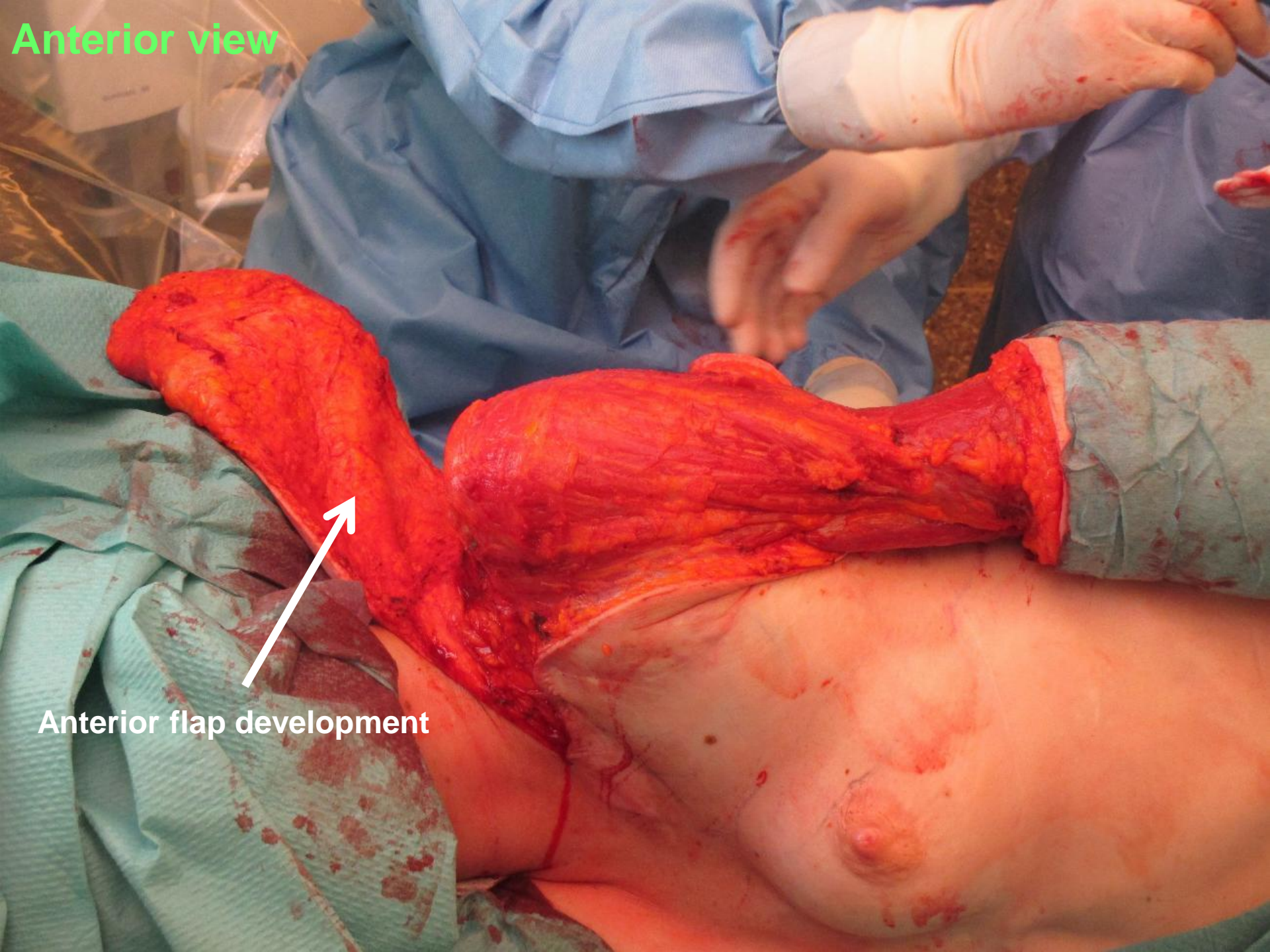
Skin to be sacrificed

Anterior view



Skin to be sacrificed

Anterior view

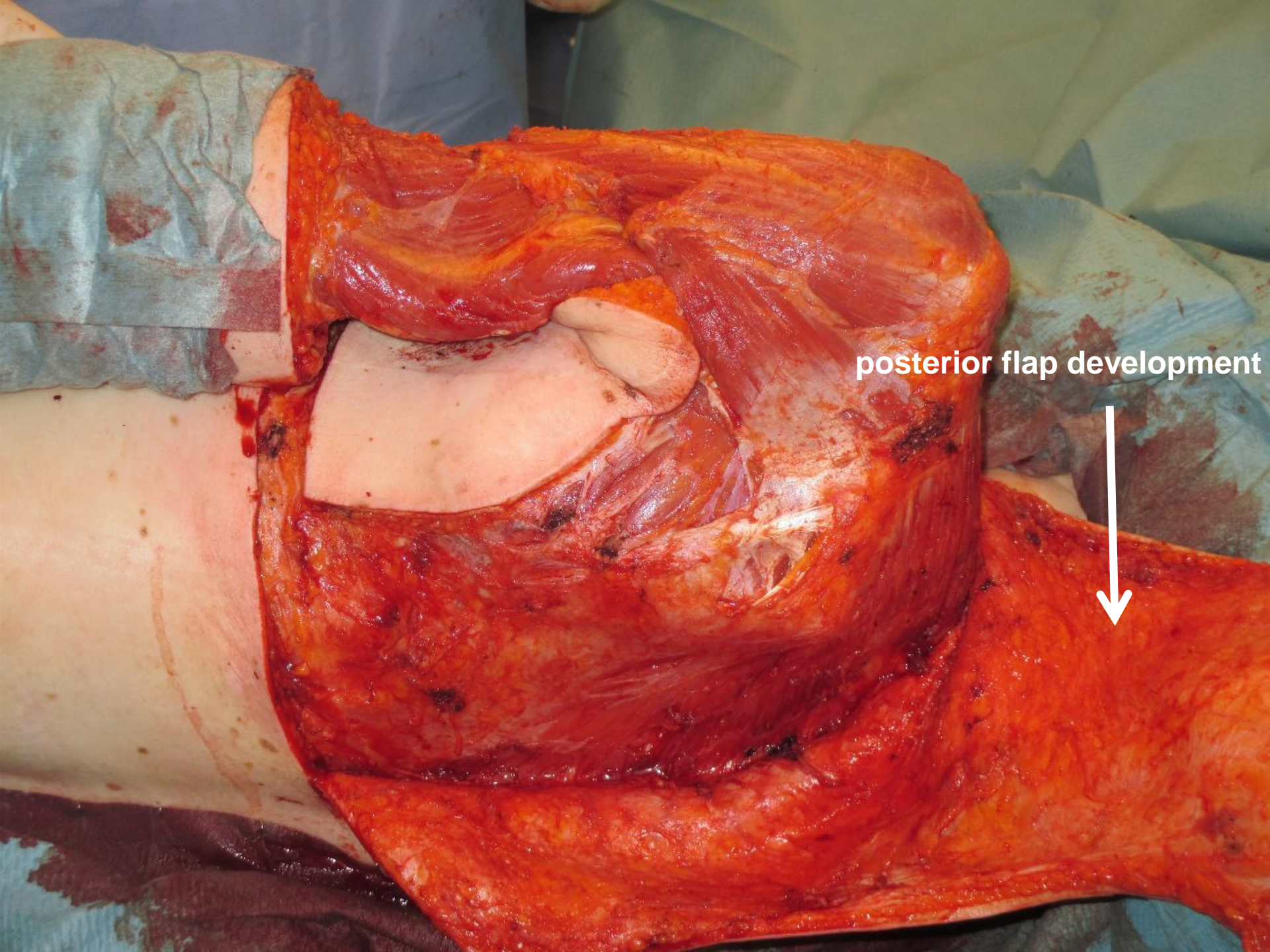


Anterior flap development

posterior view



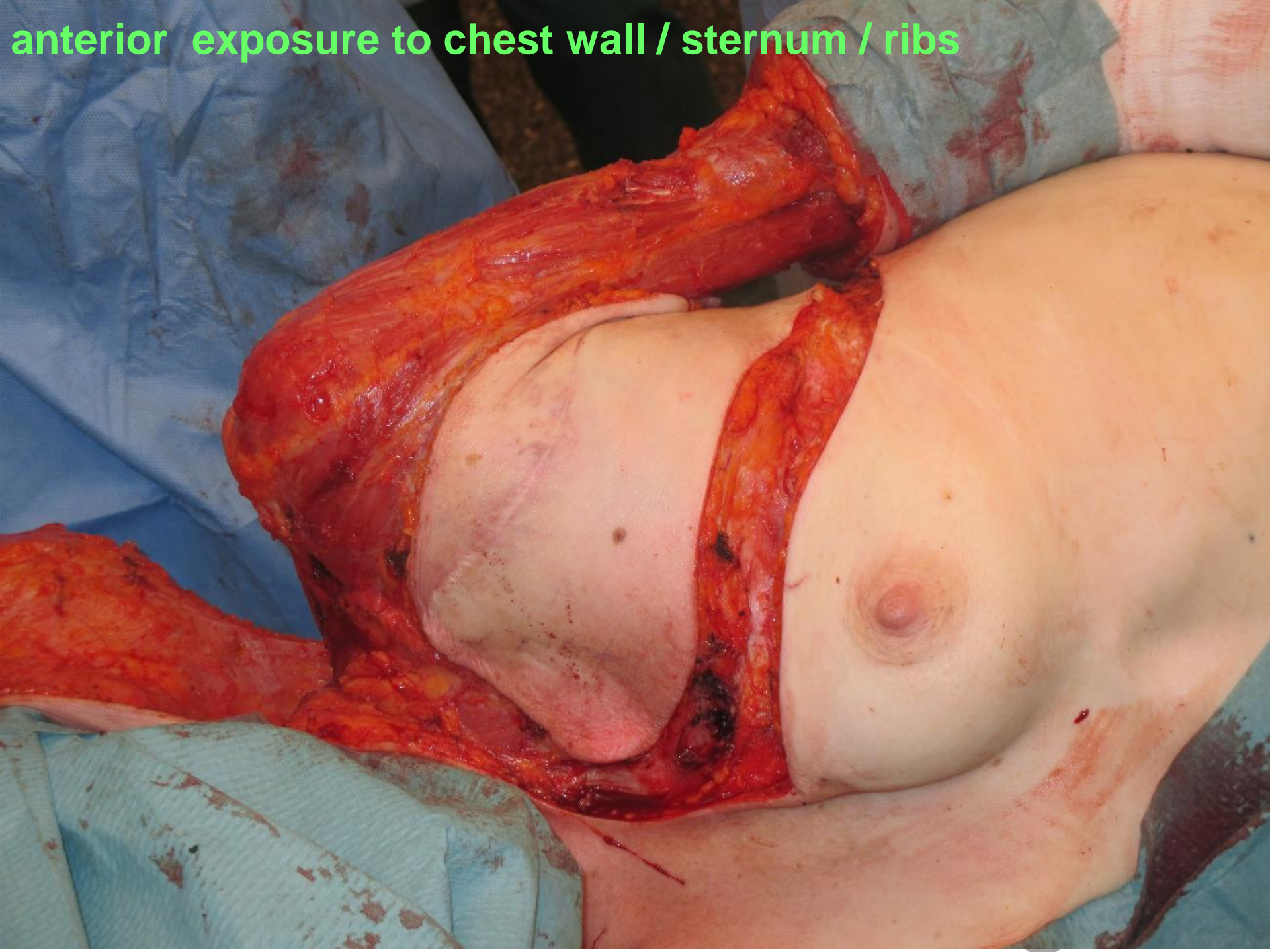




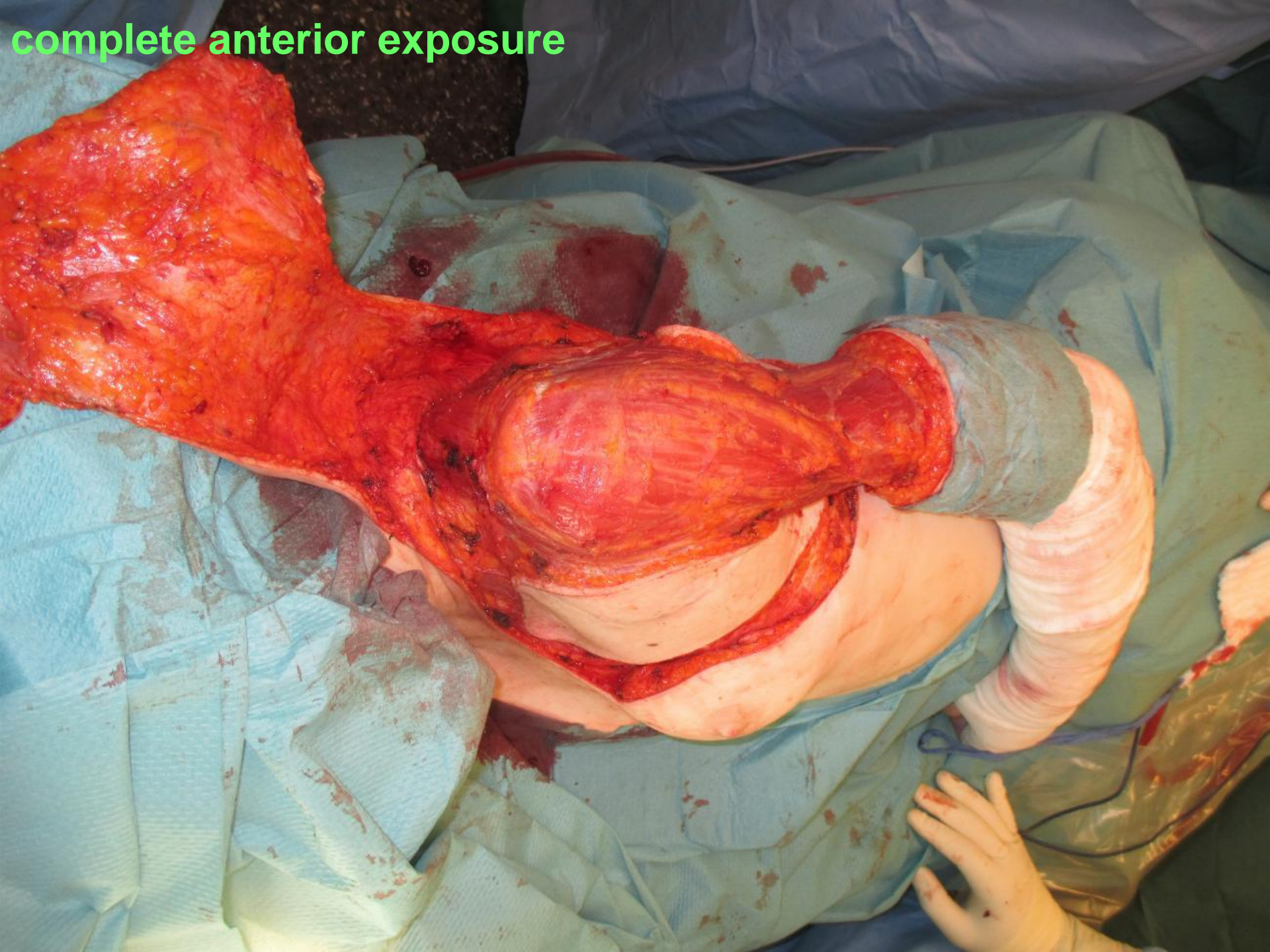
posterior flap development



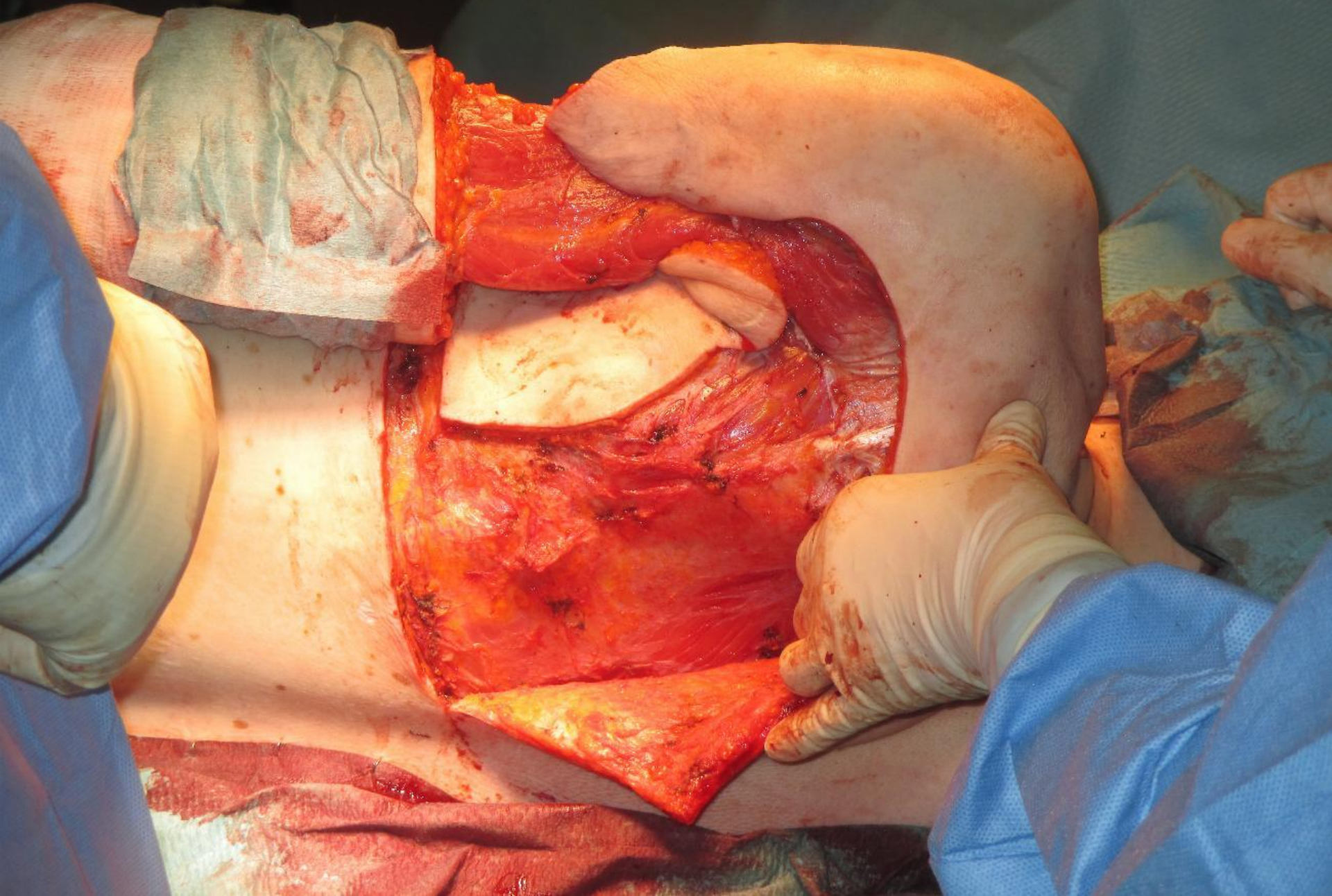
anterior exposure to chest wall / sternum / ribs



complete anterior exposure



complete posterior exposure



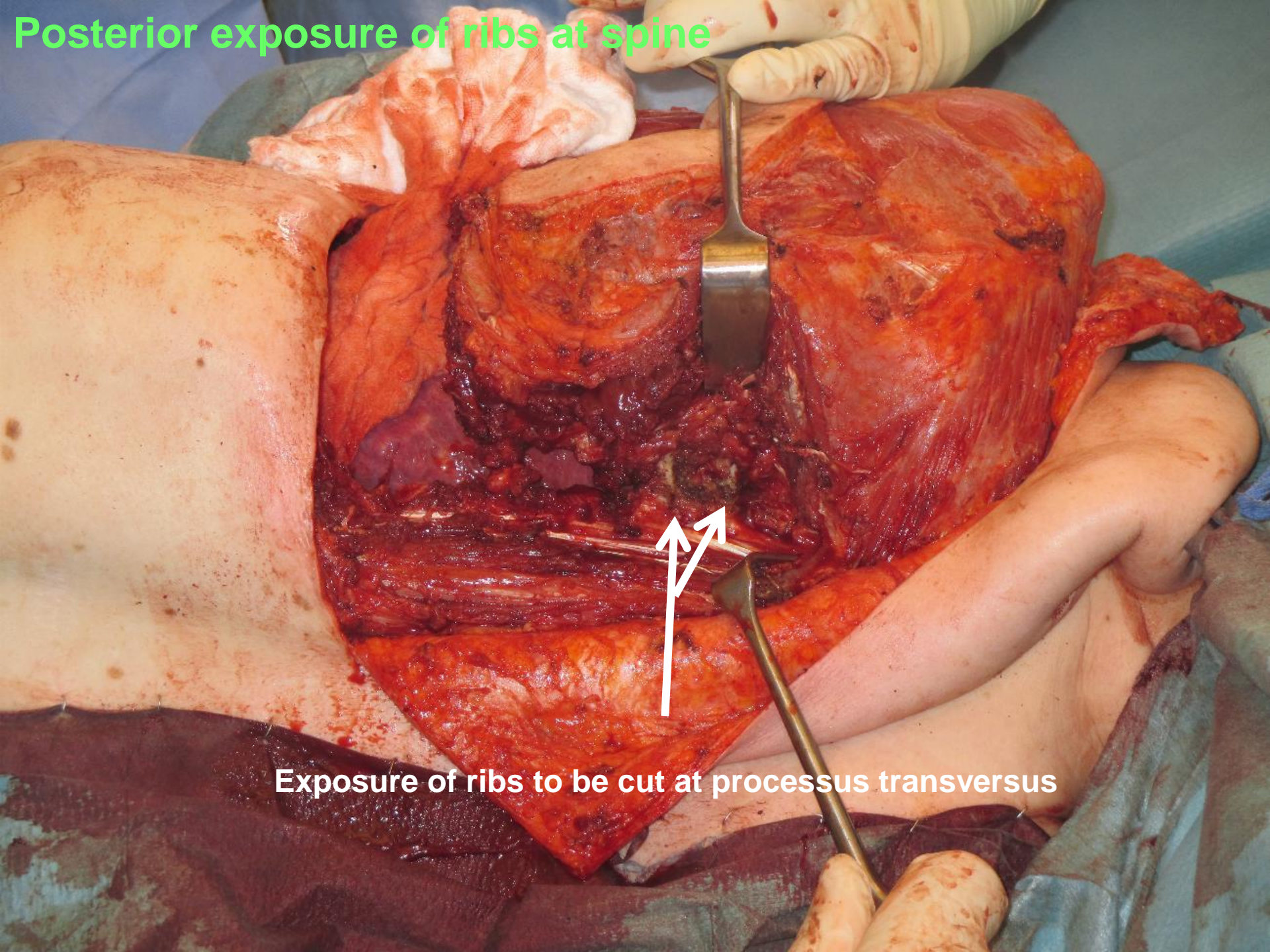
Part 3: exposure of rib cage

ended chest wall lung
y 07, 2015



anterior opening of chest wall
between ribs 3-5 at (tumor-free
sternum)

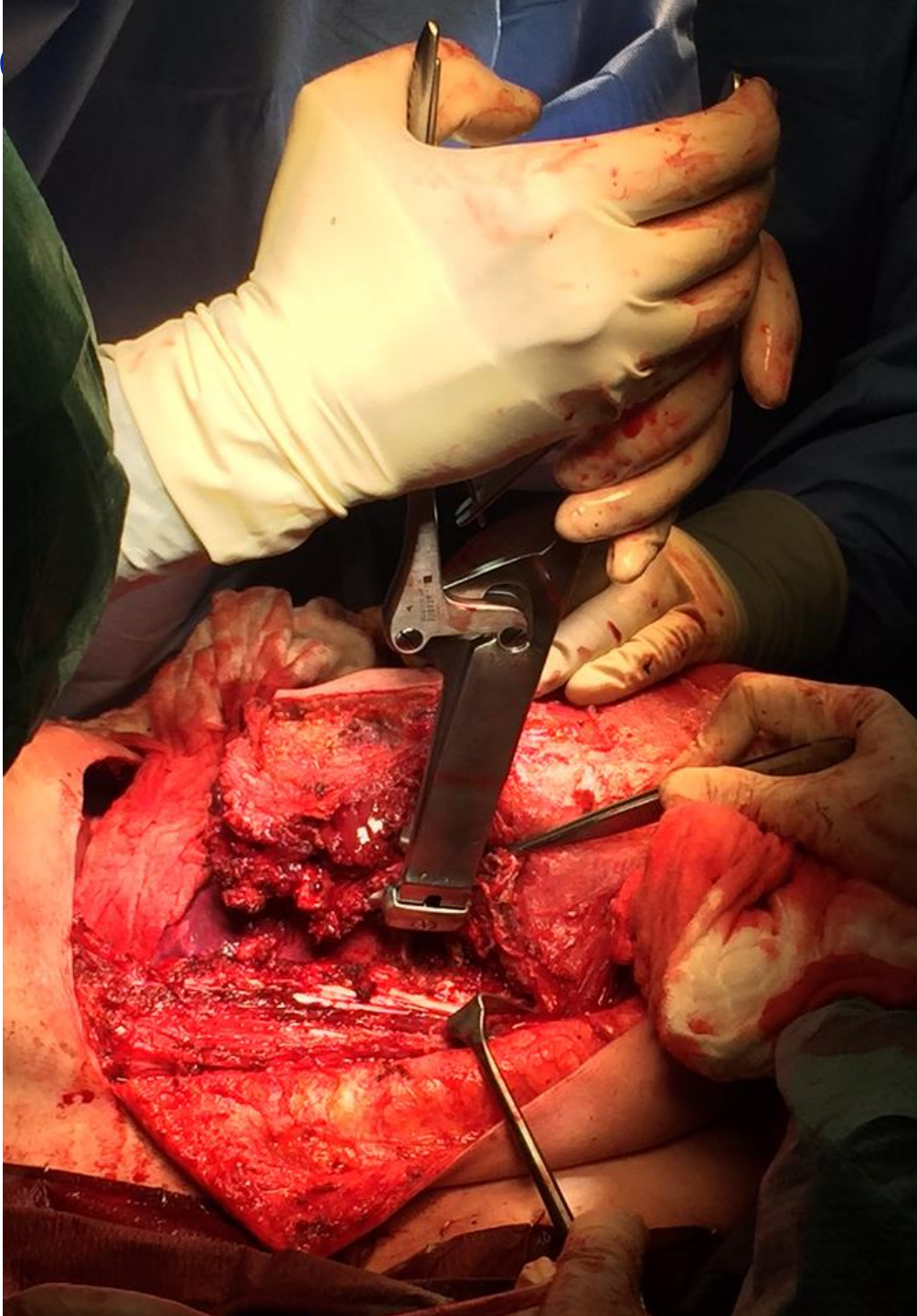
Posterior exposure of ribs at spine



Exposure of ribs to be cut at processus transversus

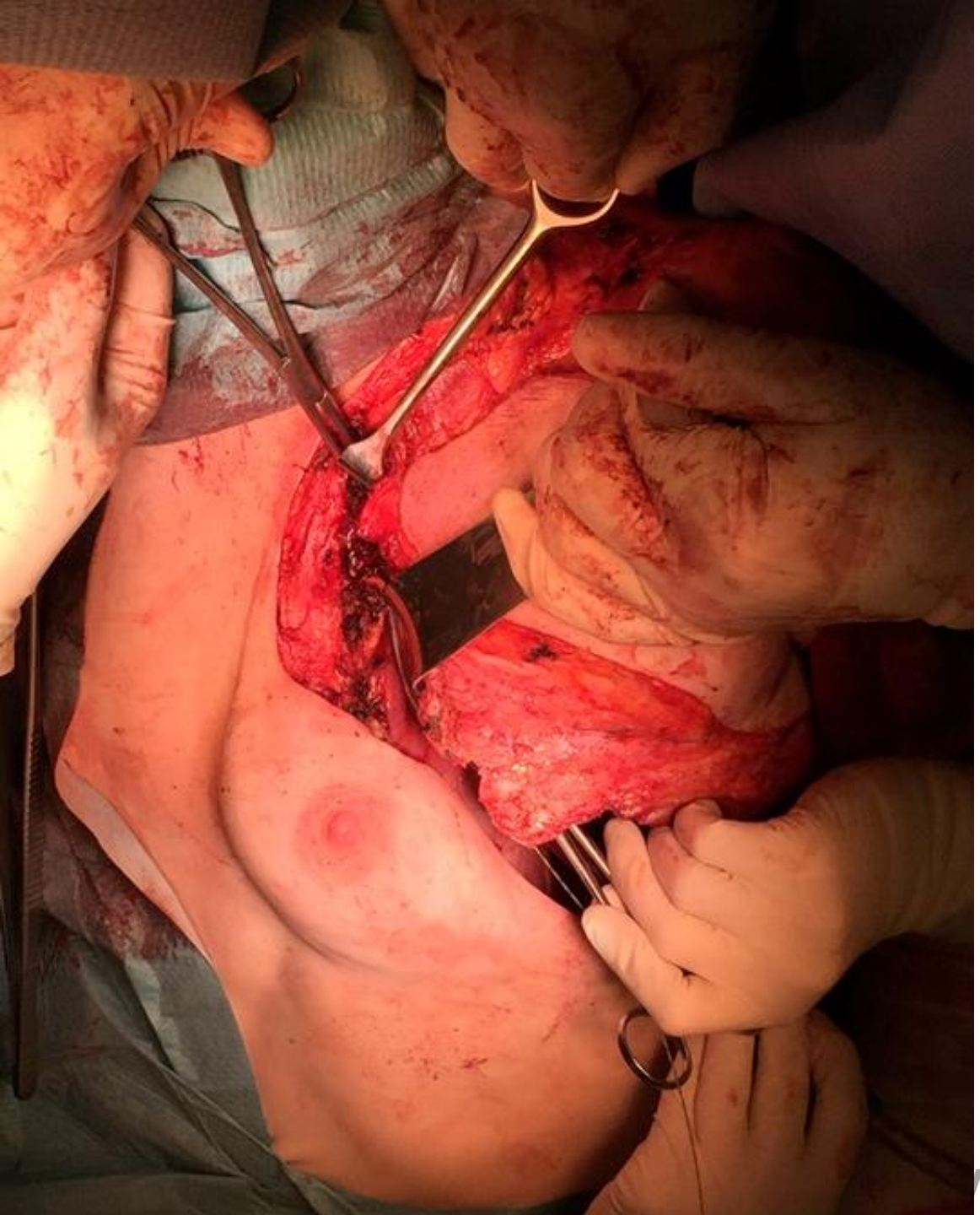
Scapula; f

st wall lung



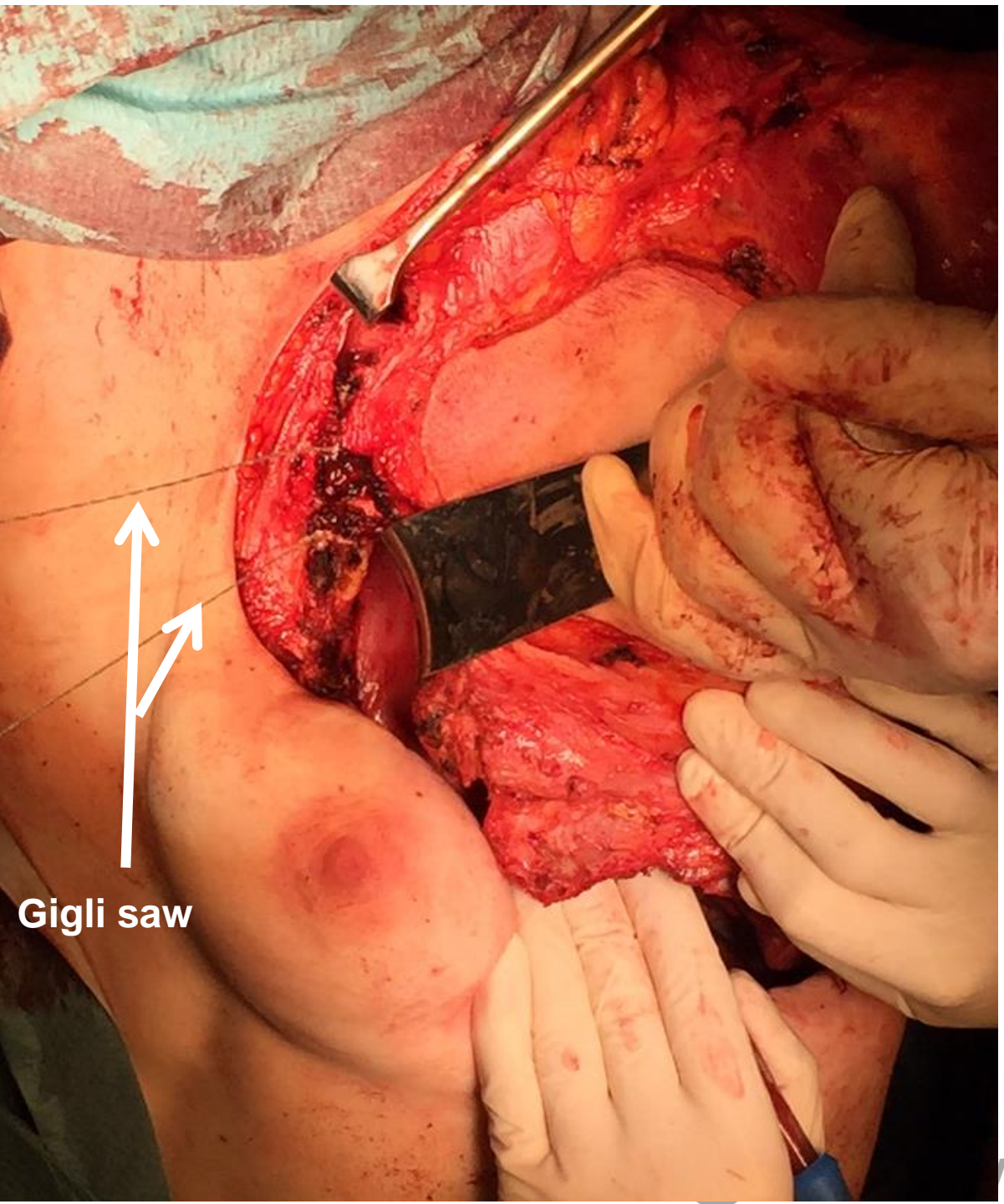
**Scapula; forequarter
Surge**

**Careful exposure of
Innominate vein dorsal
of manubrium**



**Scapula; forequa
Surg**

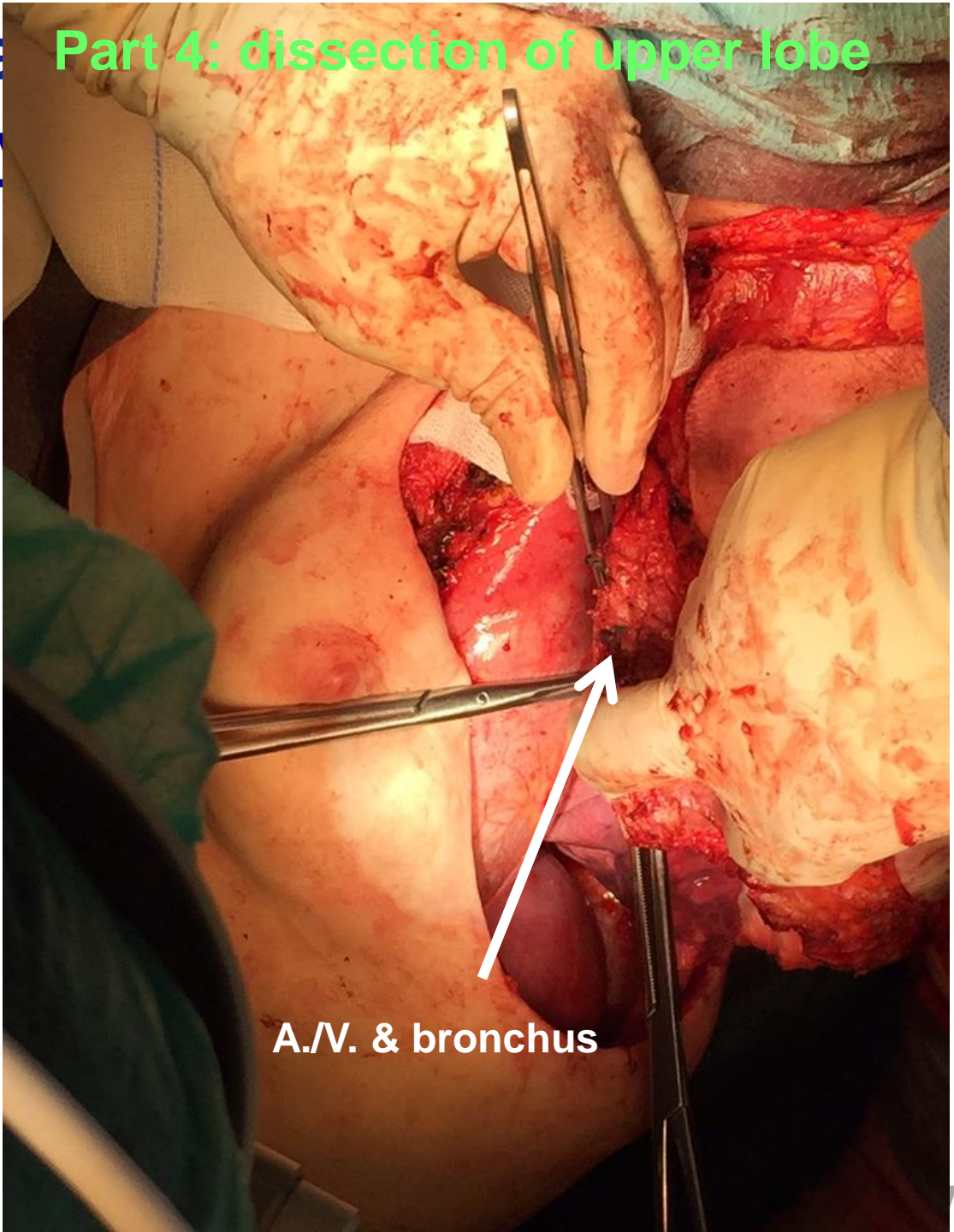
**cutting of manubrium
sterni**



Gigli saw

Scapula; forequarter Surgery

exposure of upper lobe
vessles & bronchus

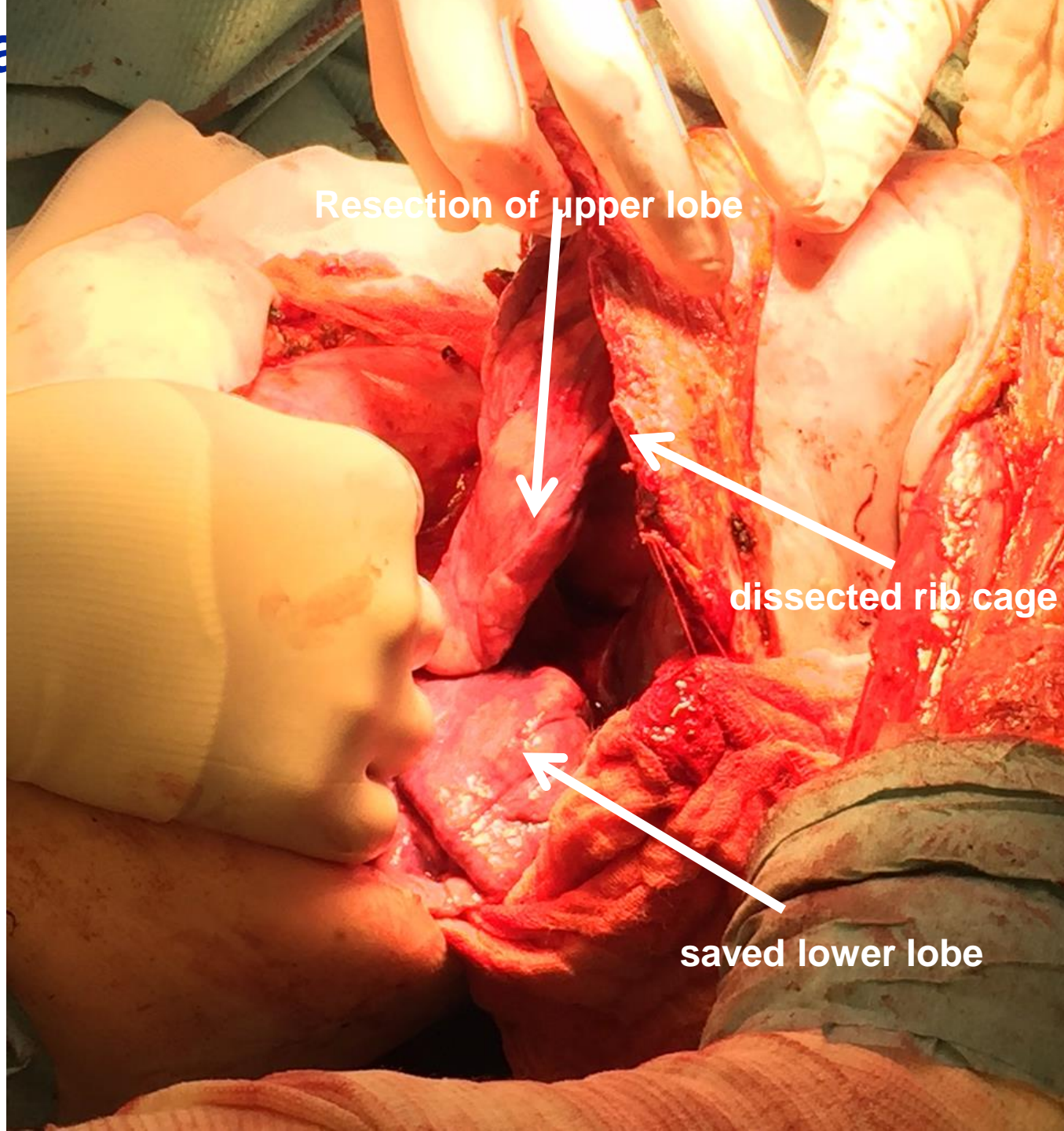


Part 4: dissection of upper lobe

A./V. & bronchus

Scapula

lung



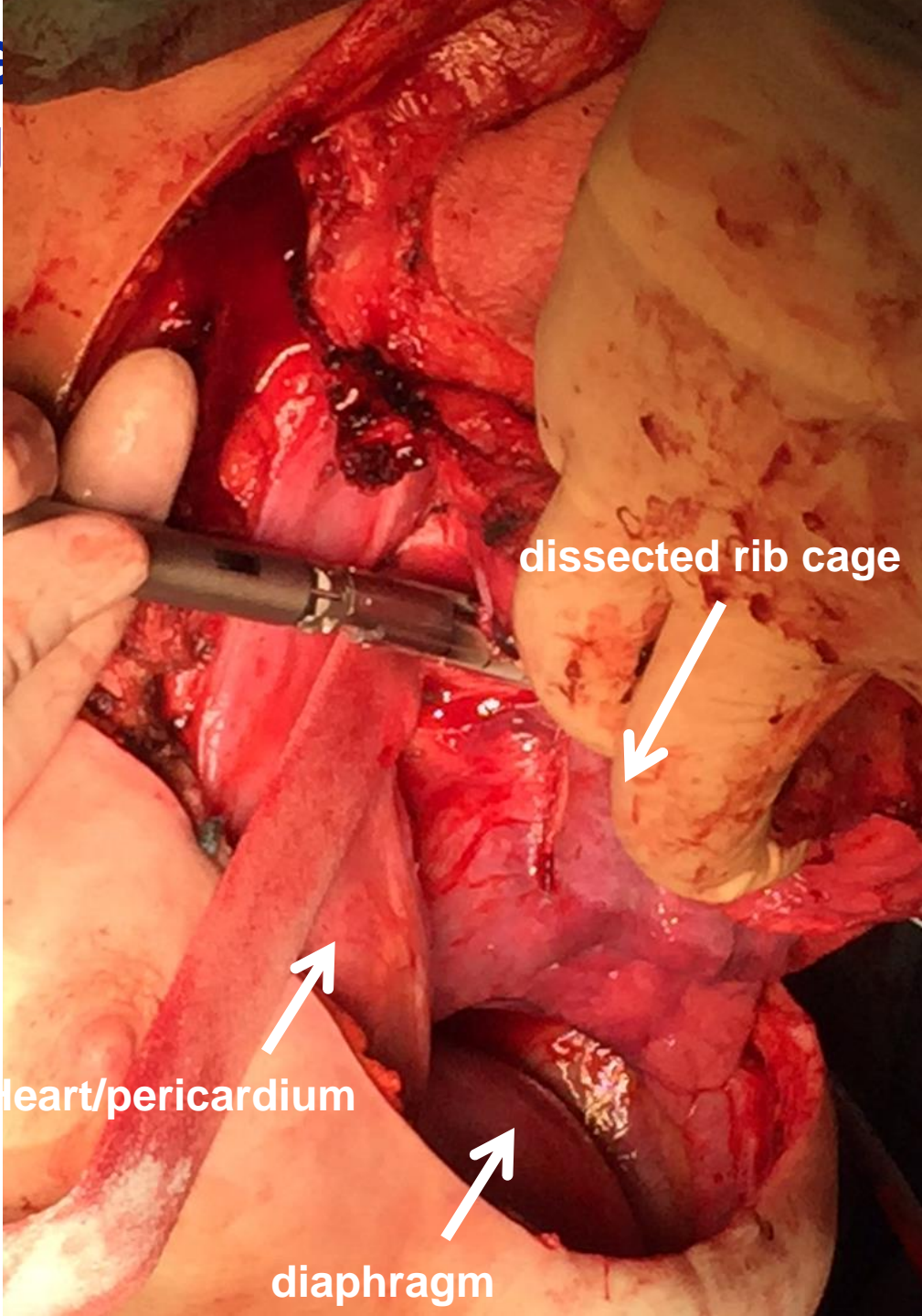
Resection of upper lobe

dissected rib cage

saved lower lobe

Scapula; forequarter e Surgery J

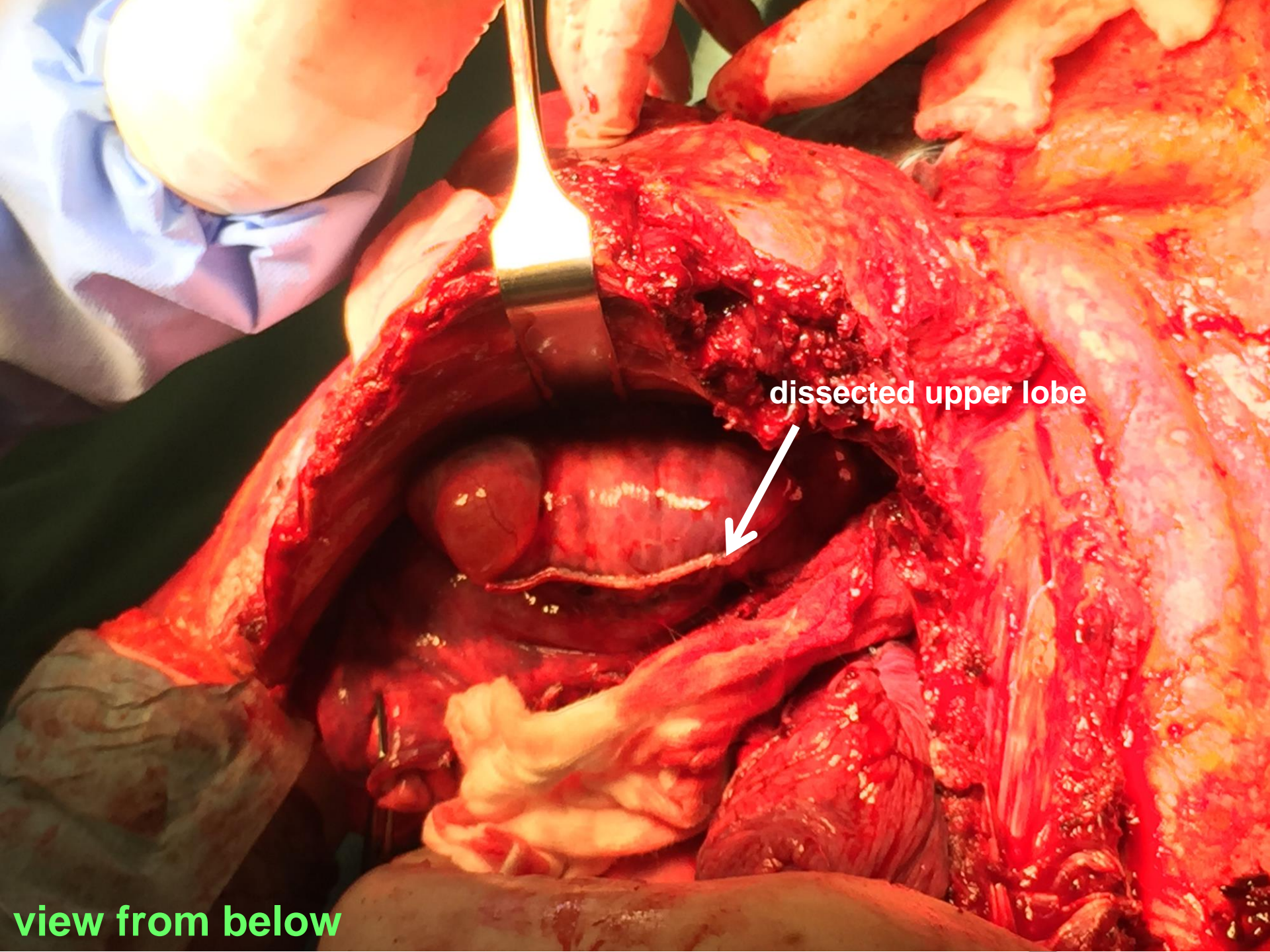
resection of lung tissue



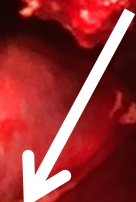
dissected rib cage

heart/pericardium

diaphragm

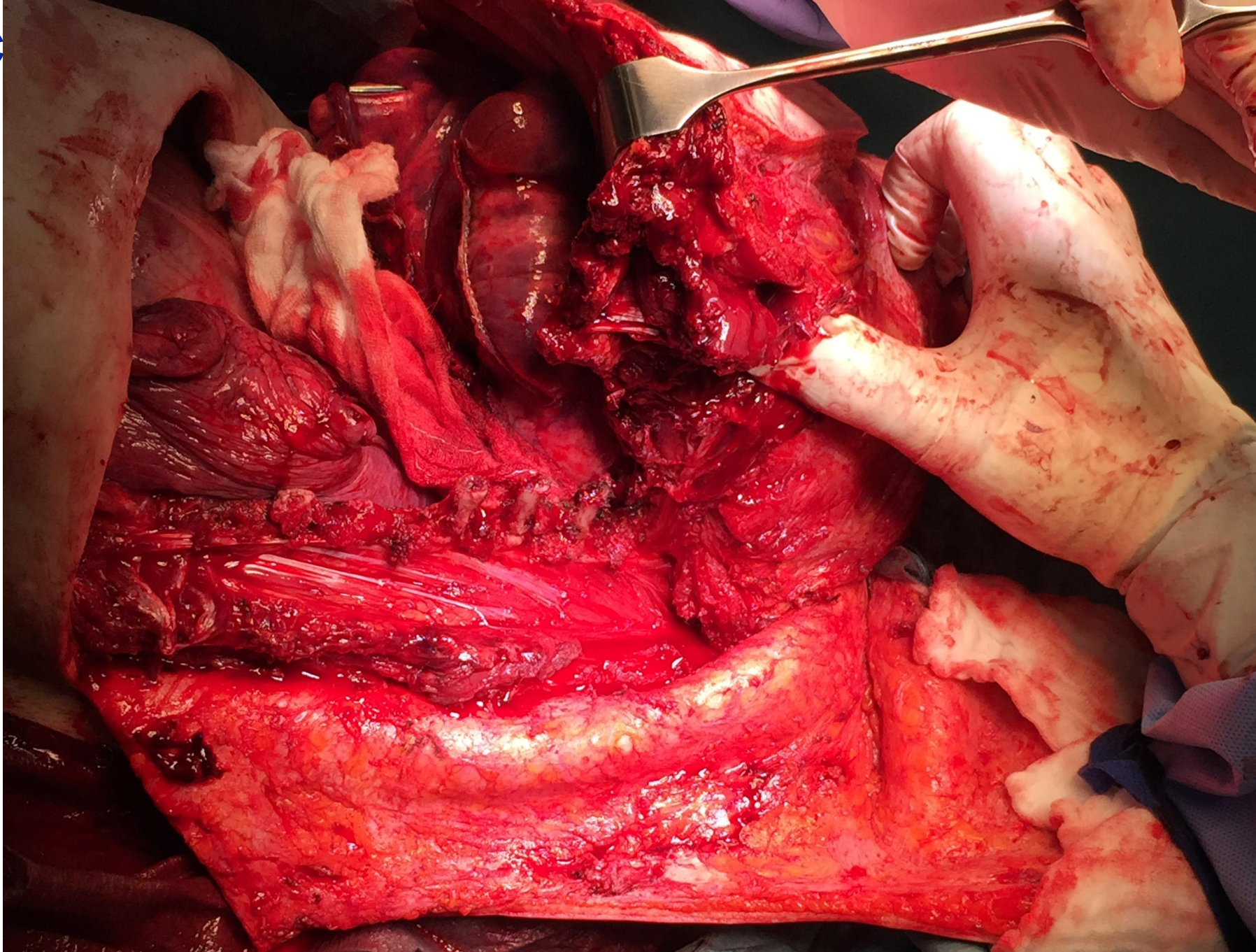


dissected upper lobe



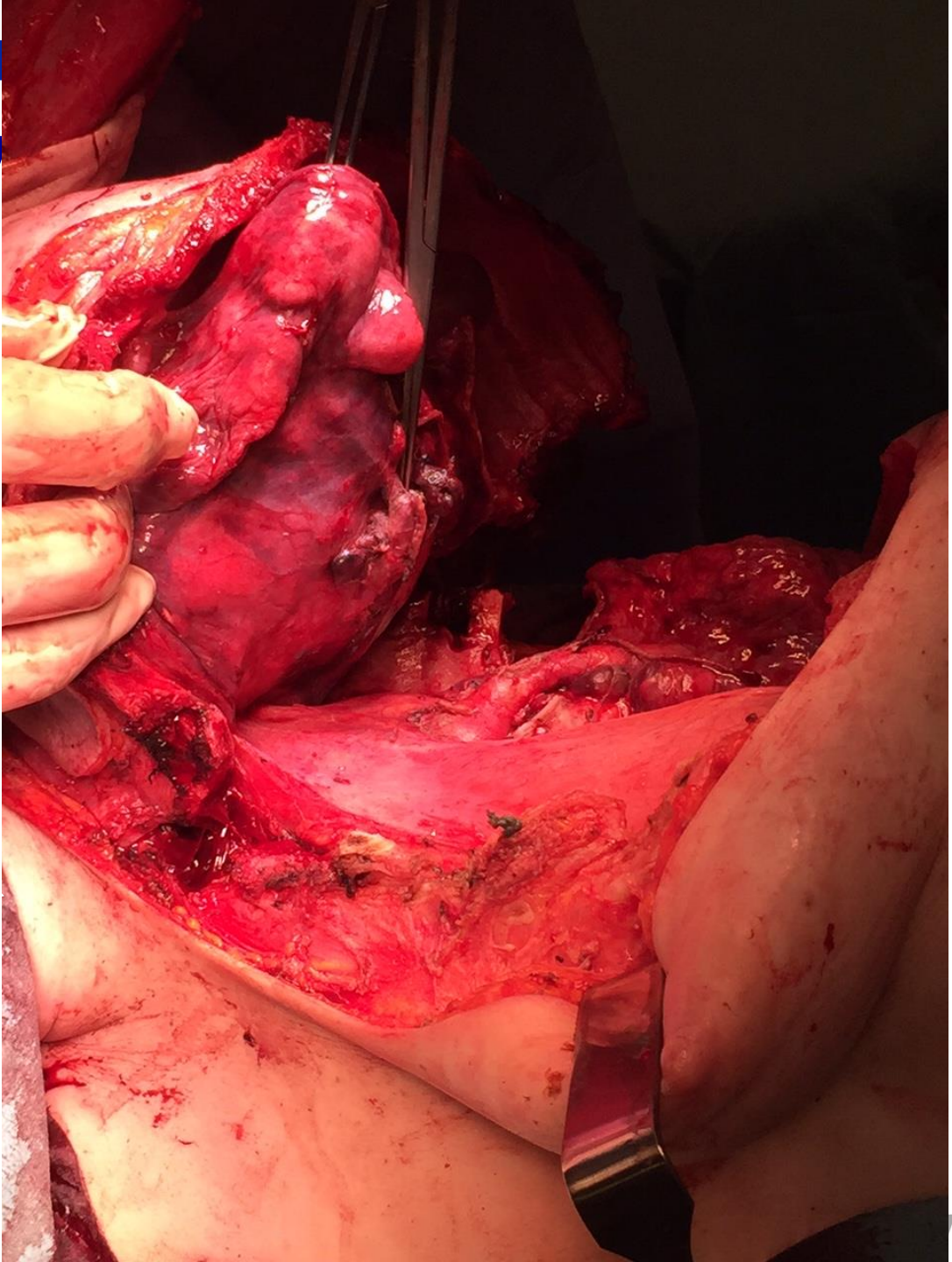
view from below

Sc



dorsal view: specimen only connected through tumor in neck

Scapula; forequarter Surgery



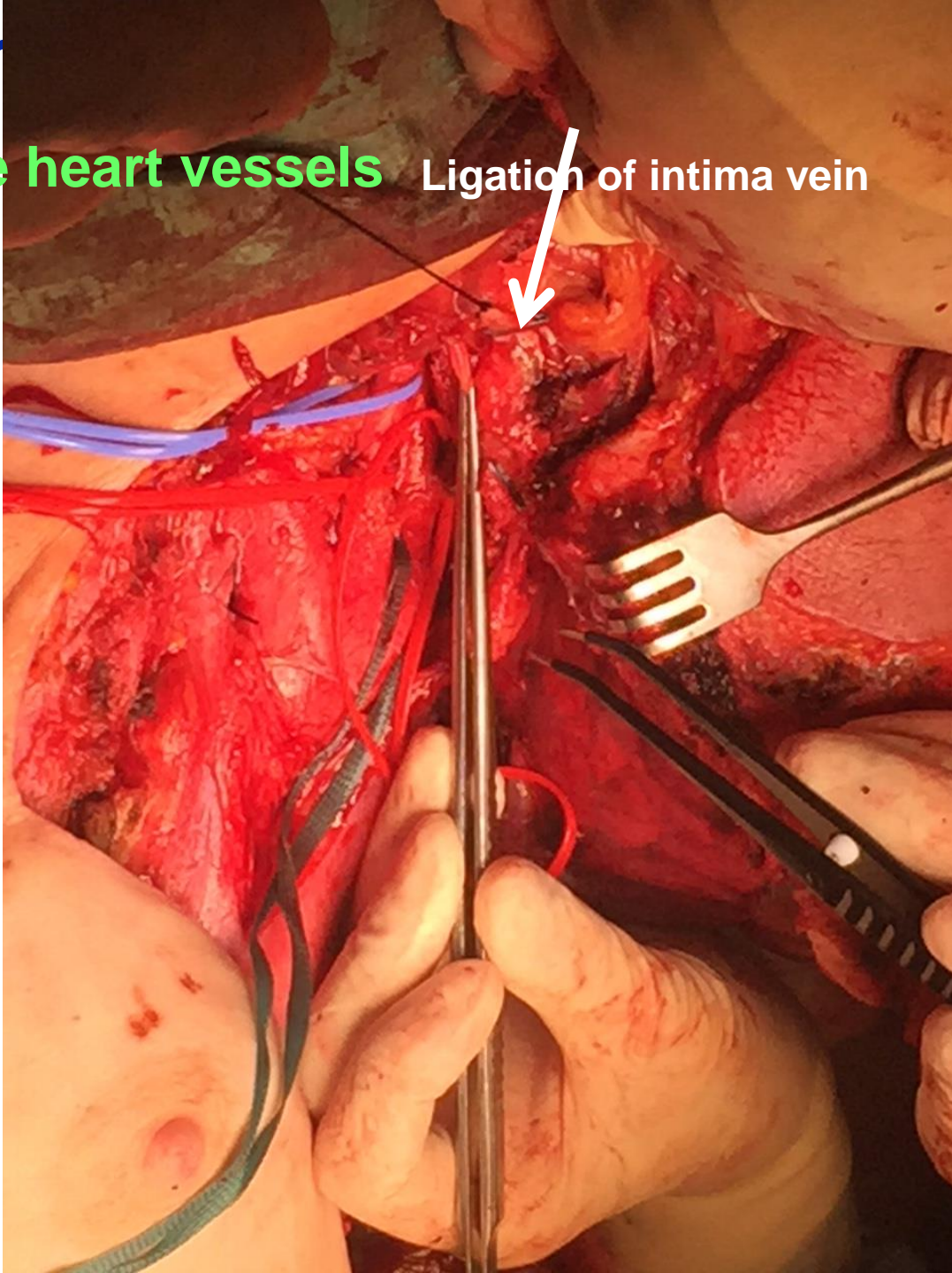
anterior view

Scapula; for

all lung

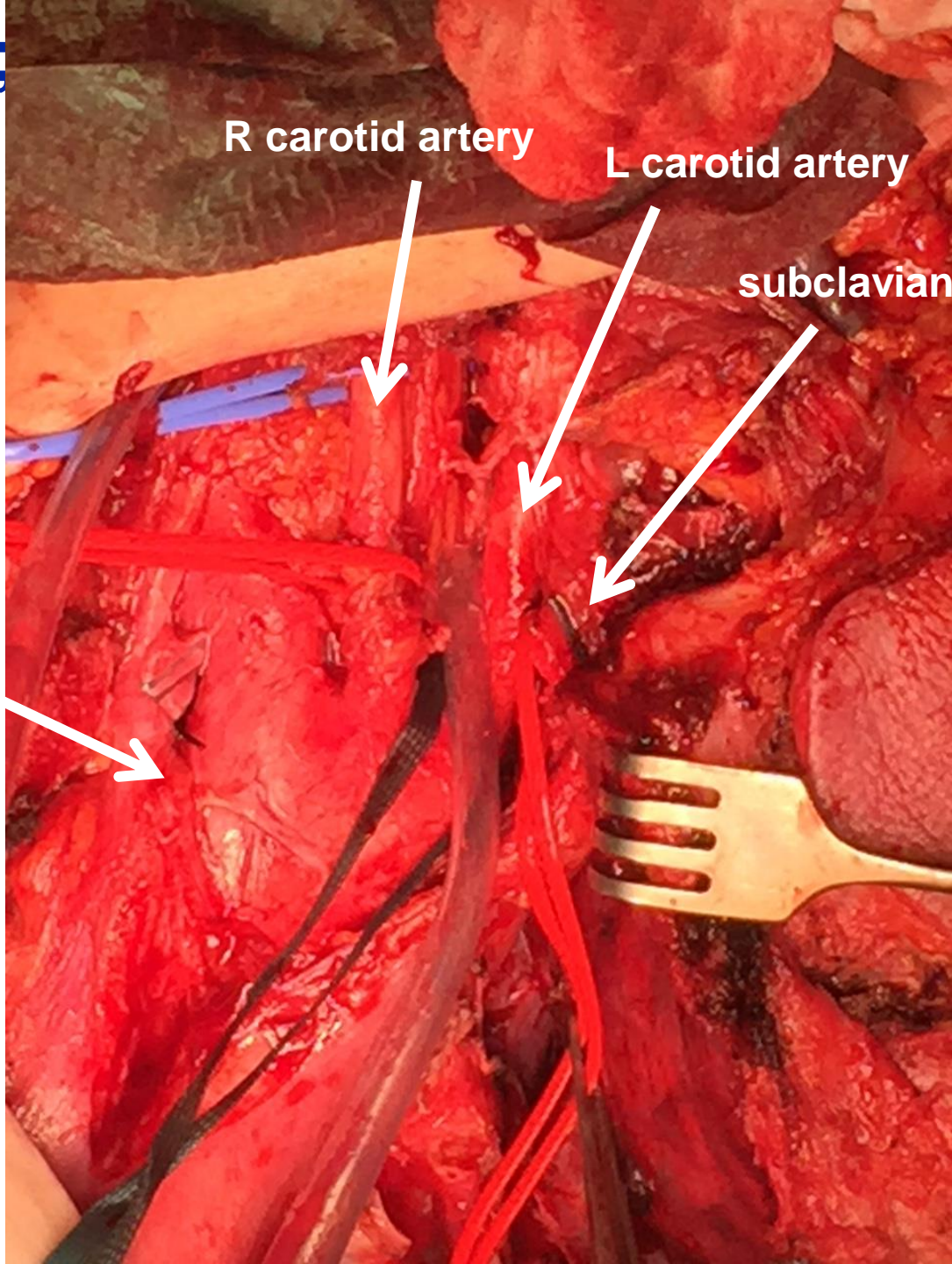
Part 5: exposure heart vessels

Ligation of intima vein

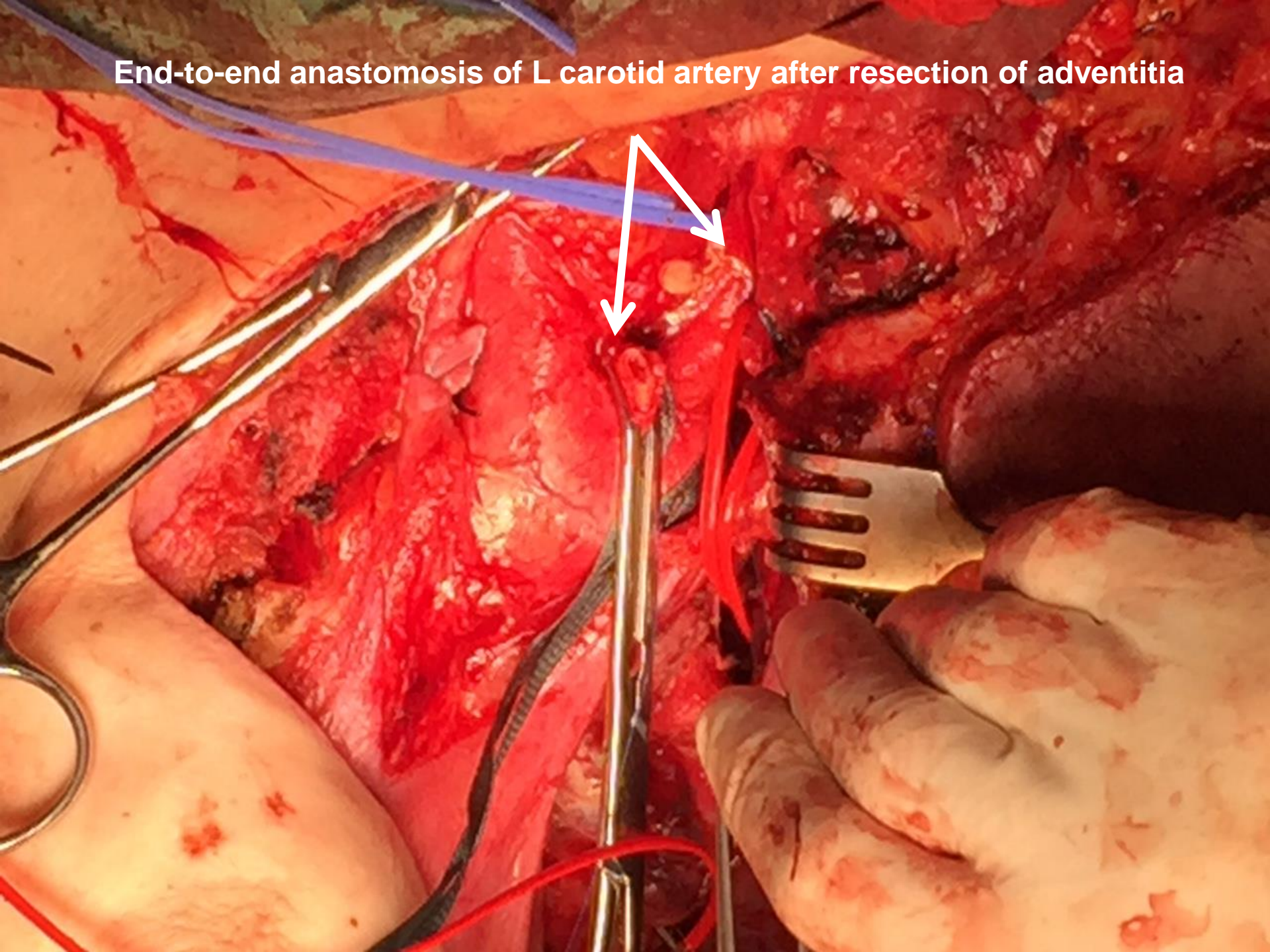


Scapula;

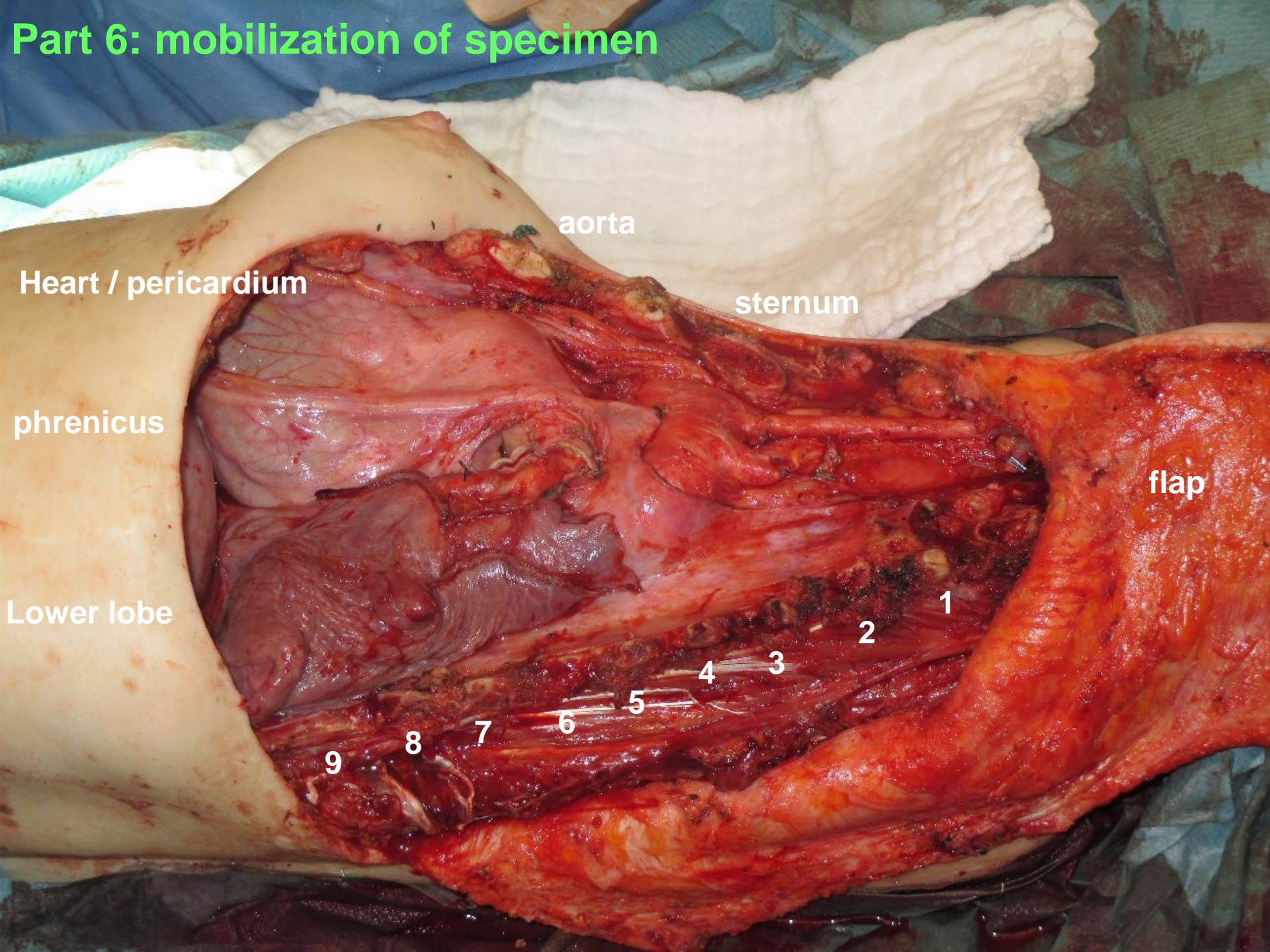
st wall lung



End-to-end anastomosis of L carotid artery after resection of adventitia



Part 6: mobilization of specimen



aorta

Heart / pericardium

sternum

phrenicus

flap

Lower lobe

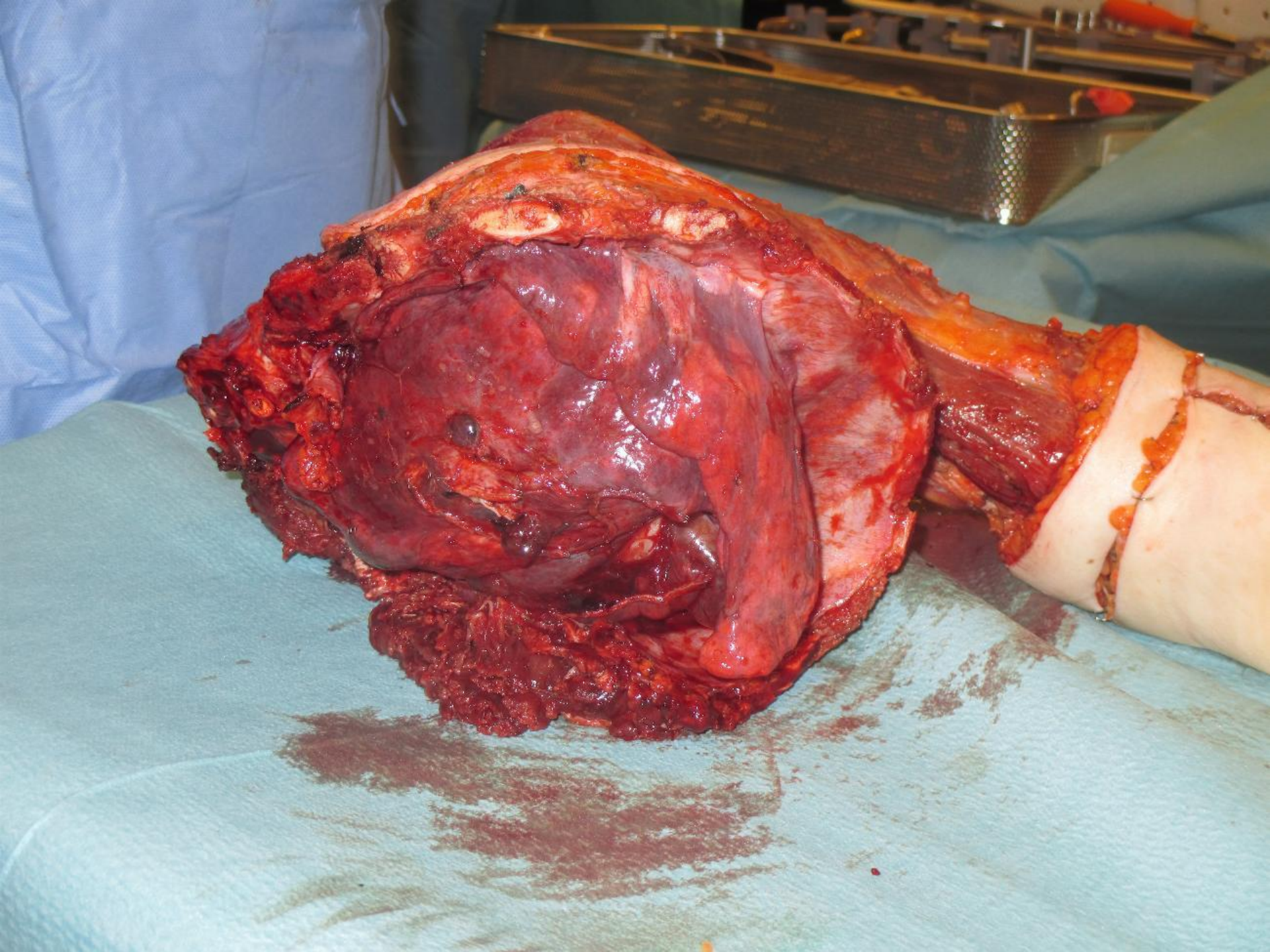
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Part 7: mobilization of free fillet flap



free fillet flap

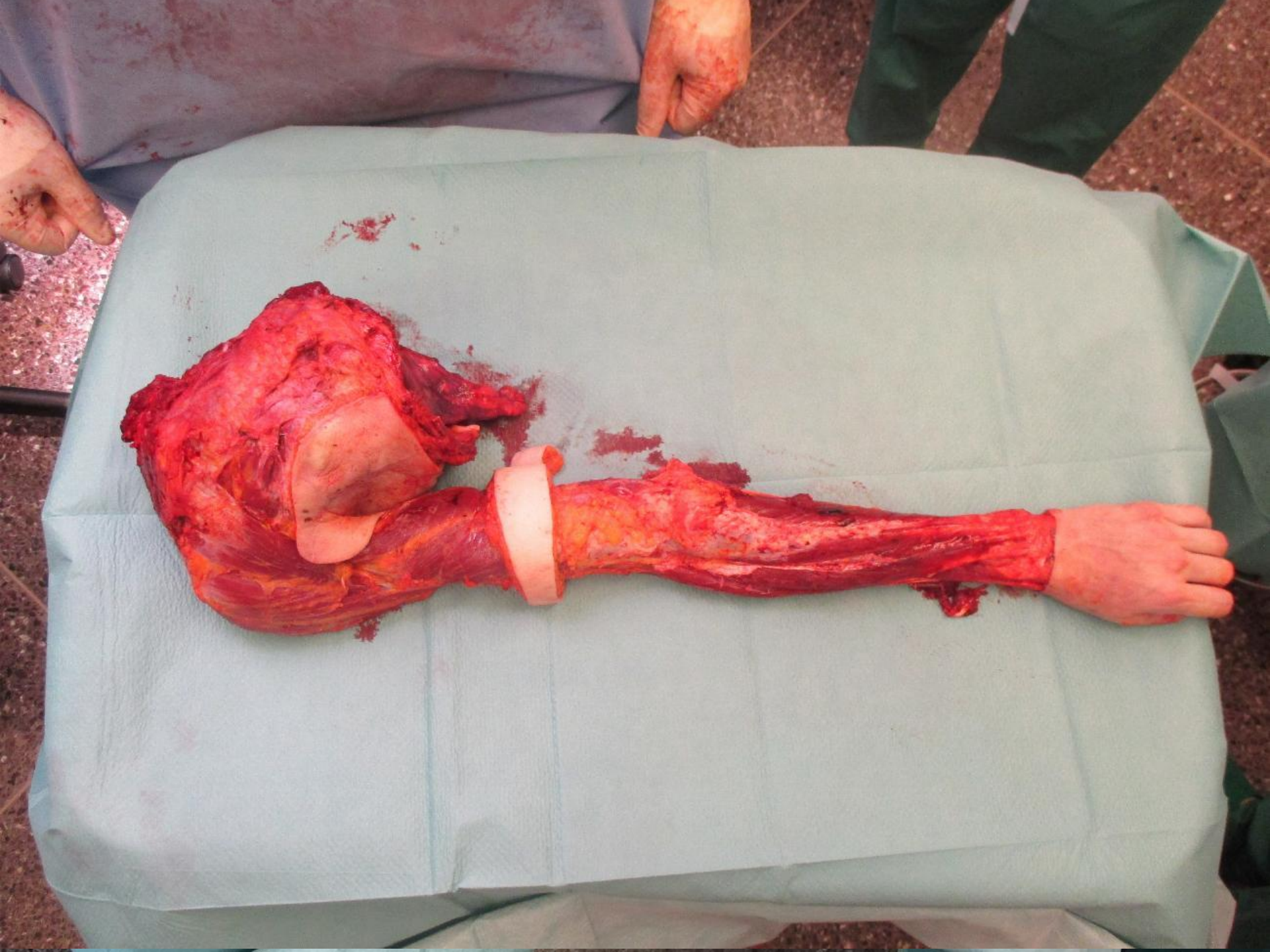


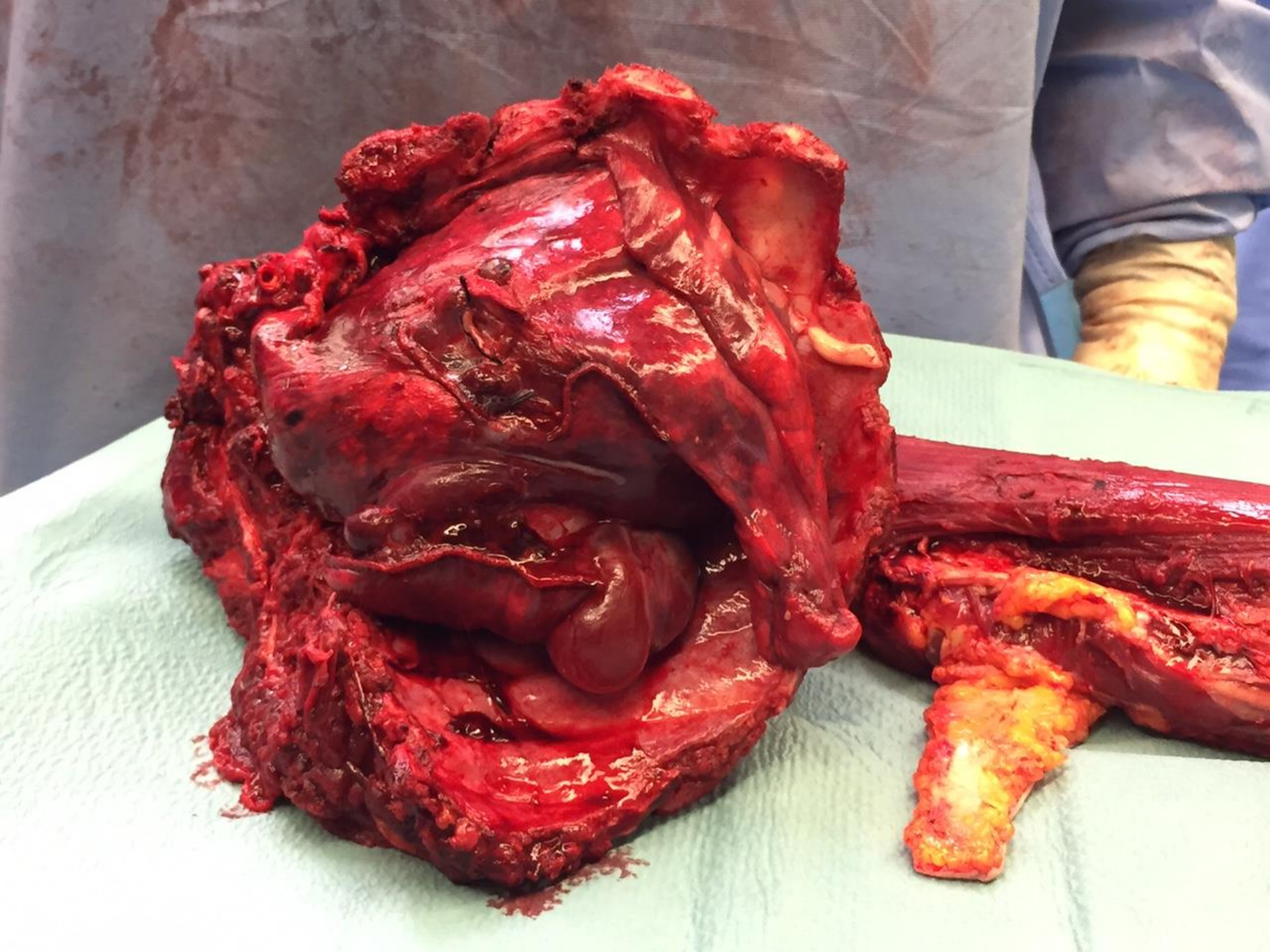






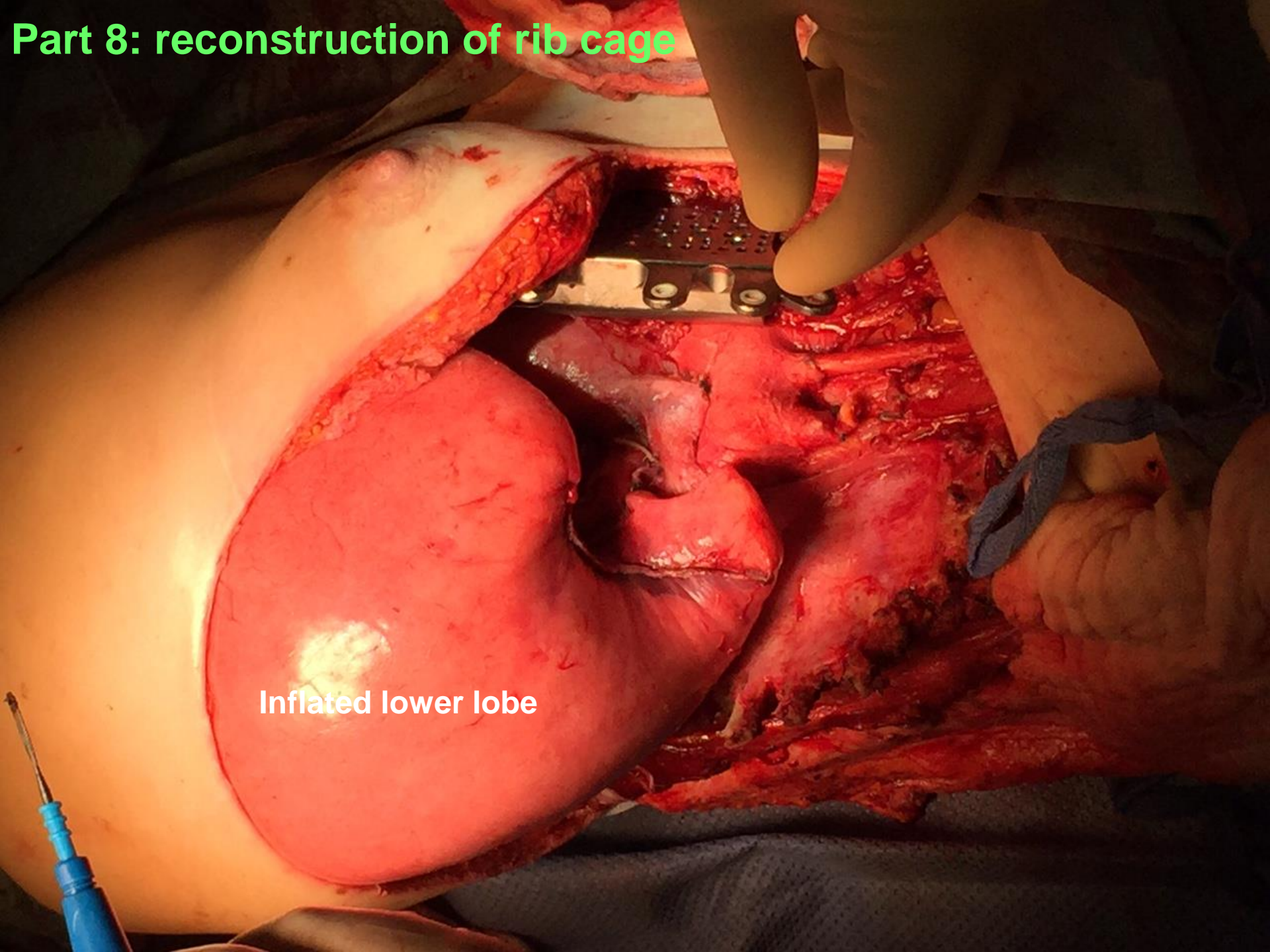






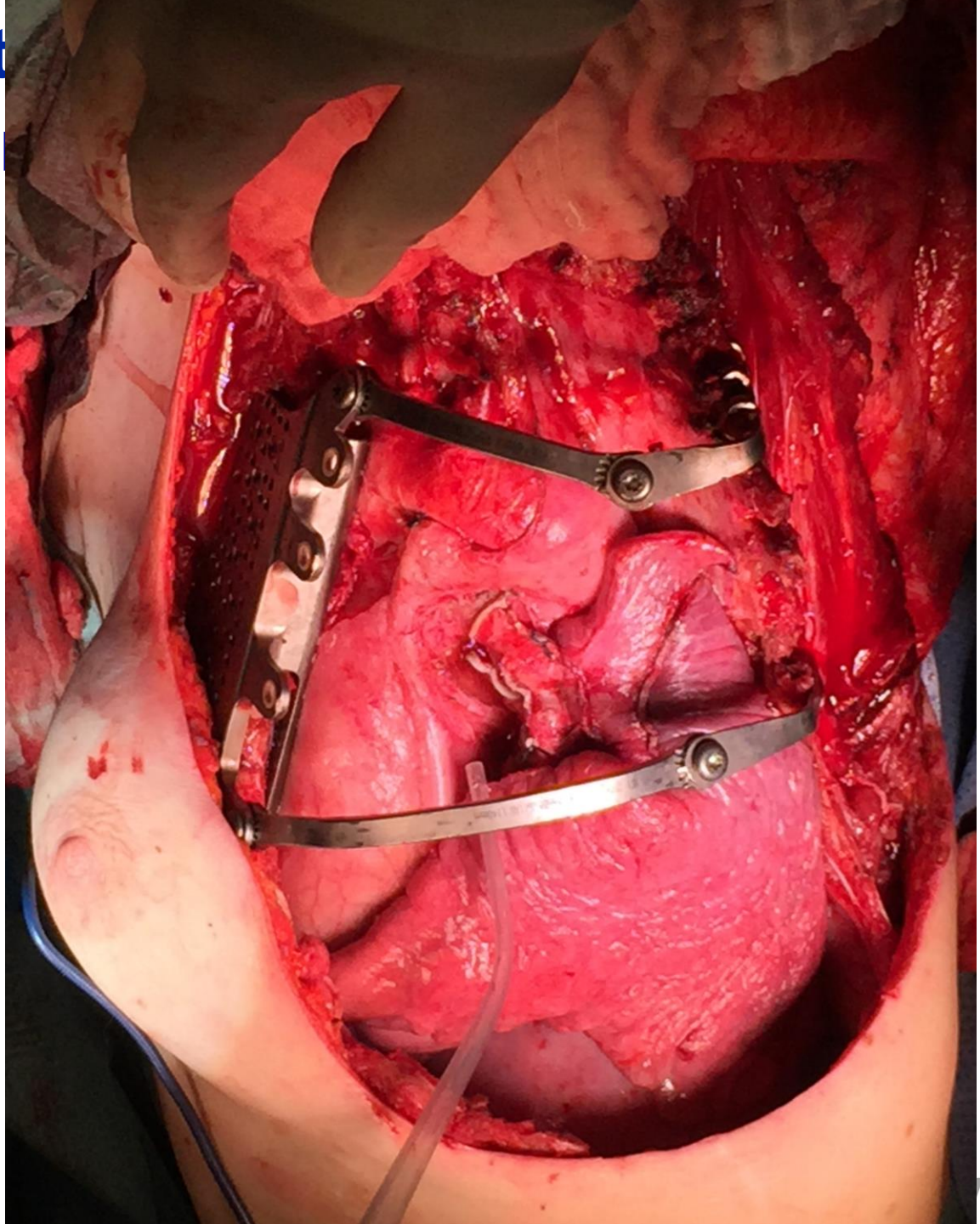


Part 8: reconstruction of rib cage

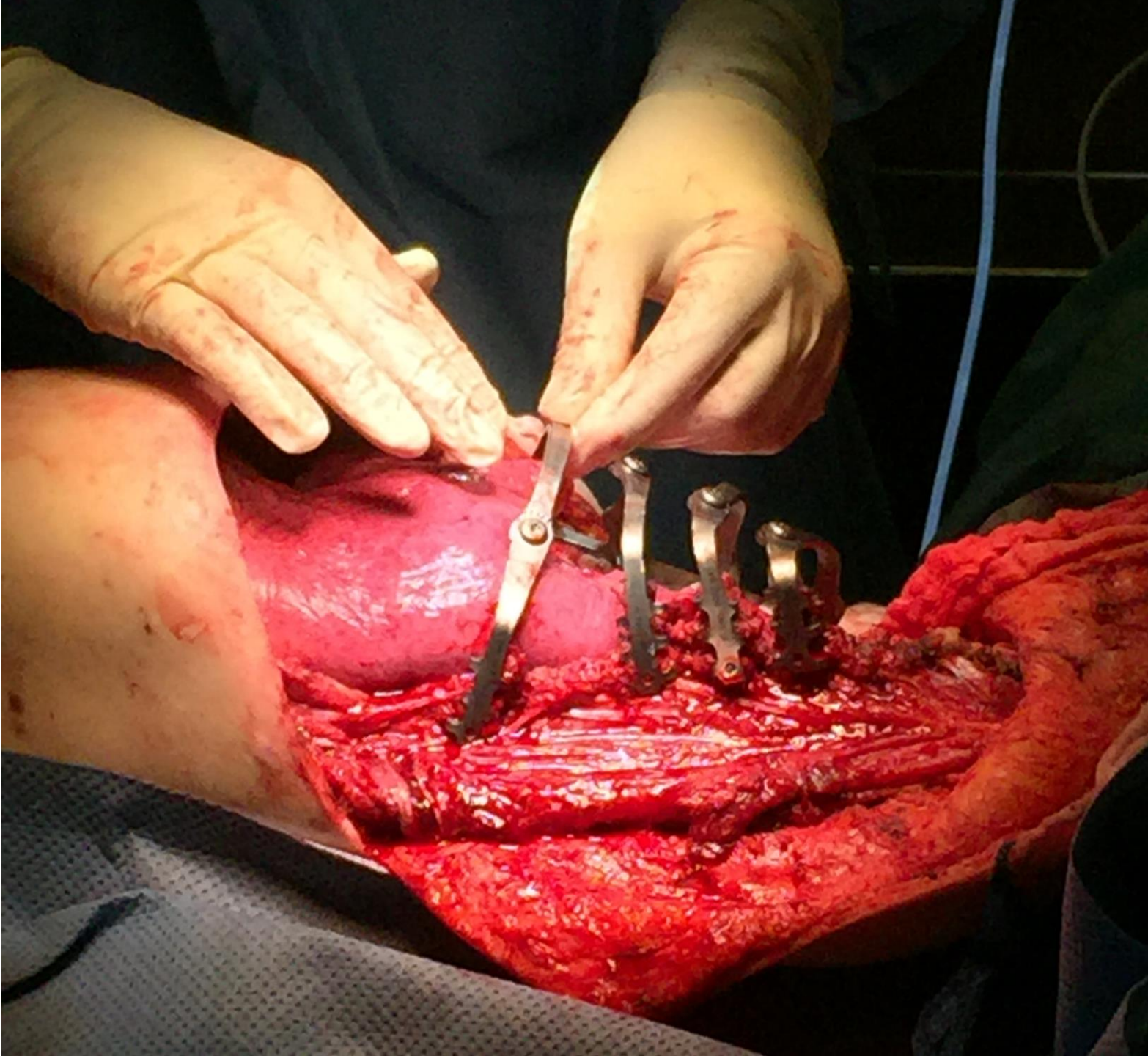


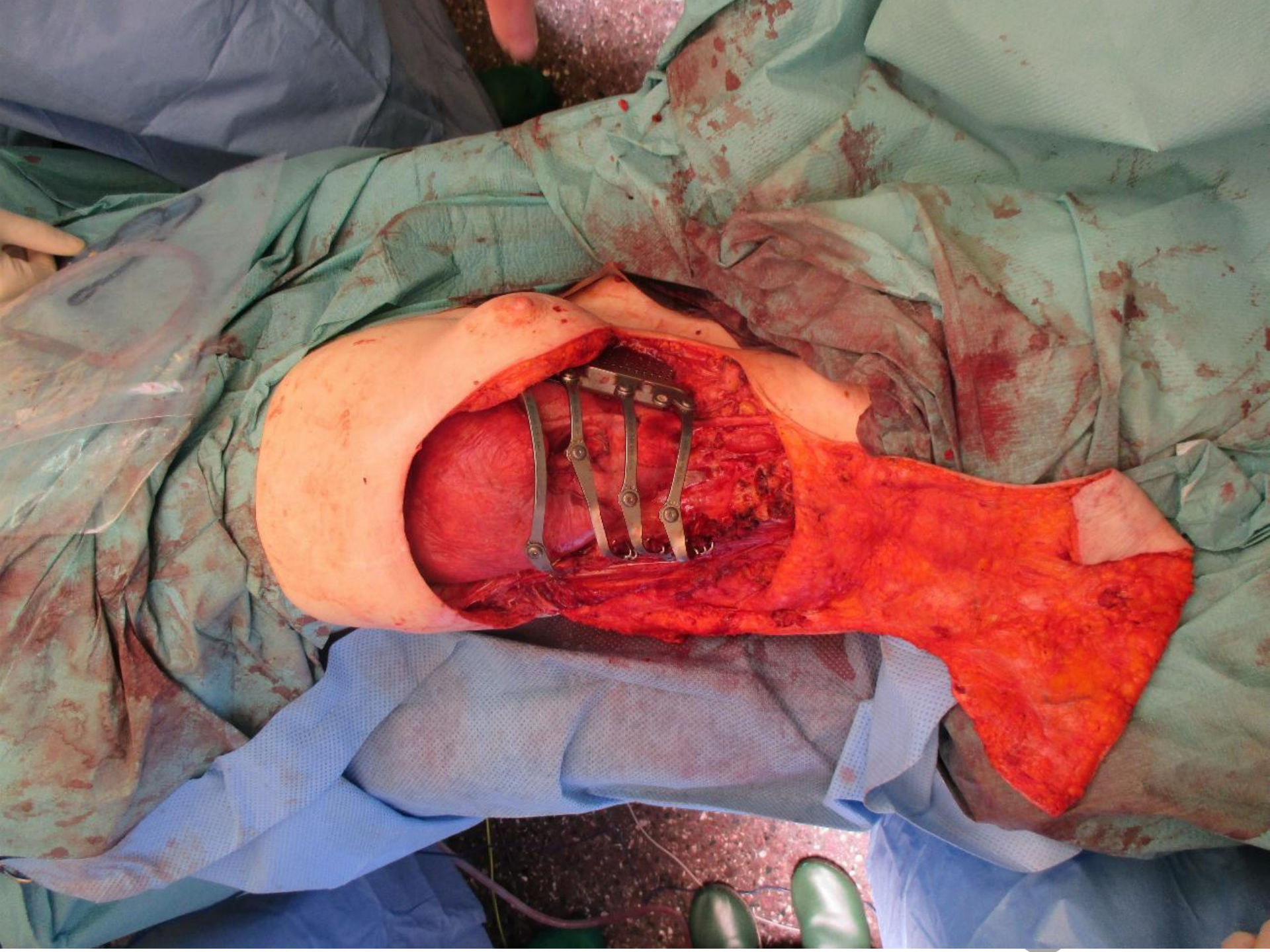
Inflated lower lobe

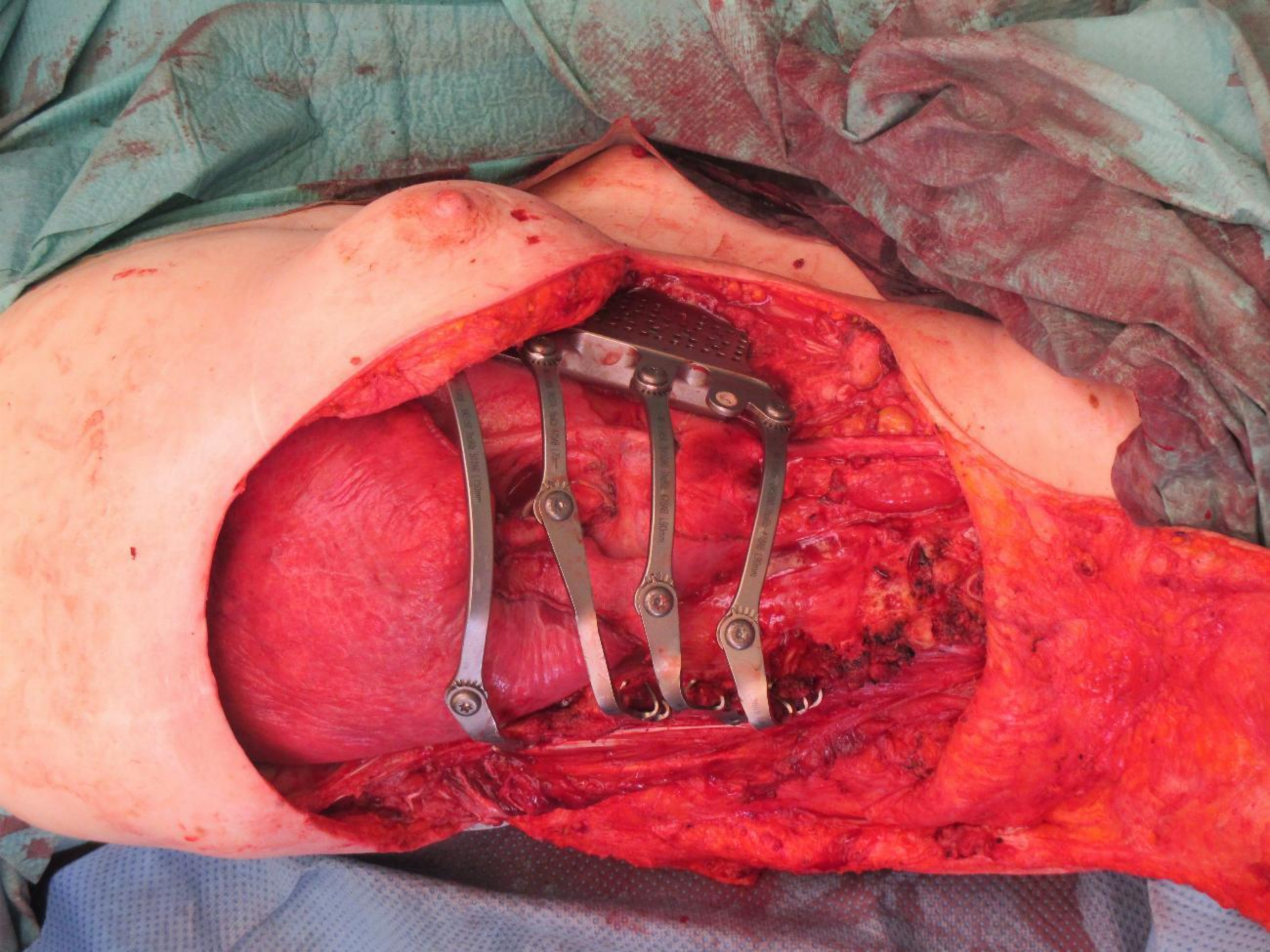
Scapula; forequarter Surge

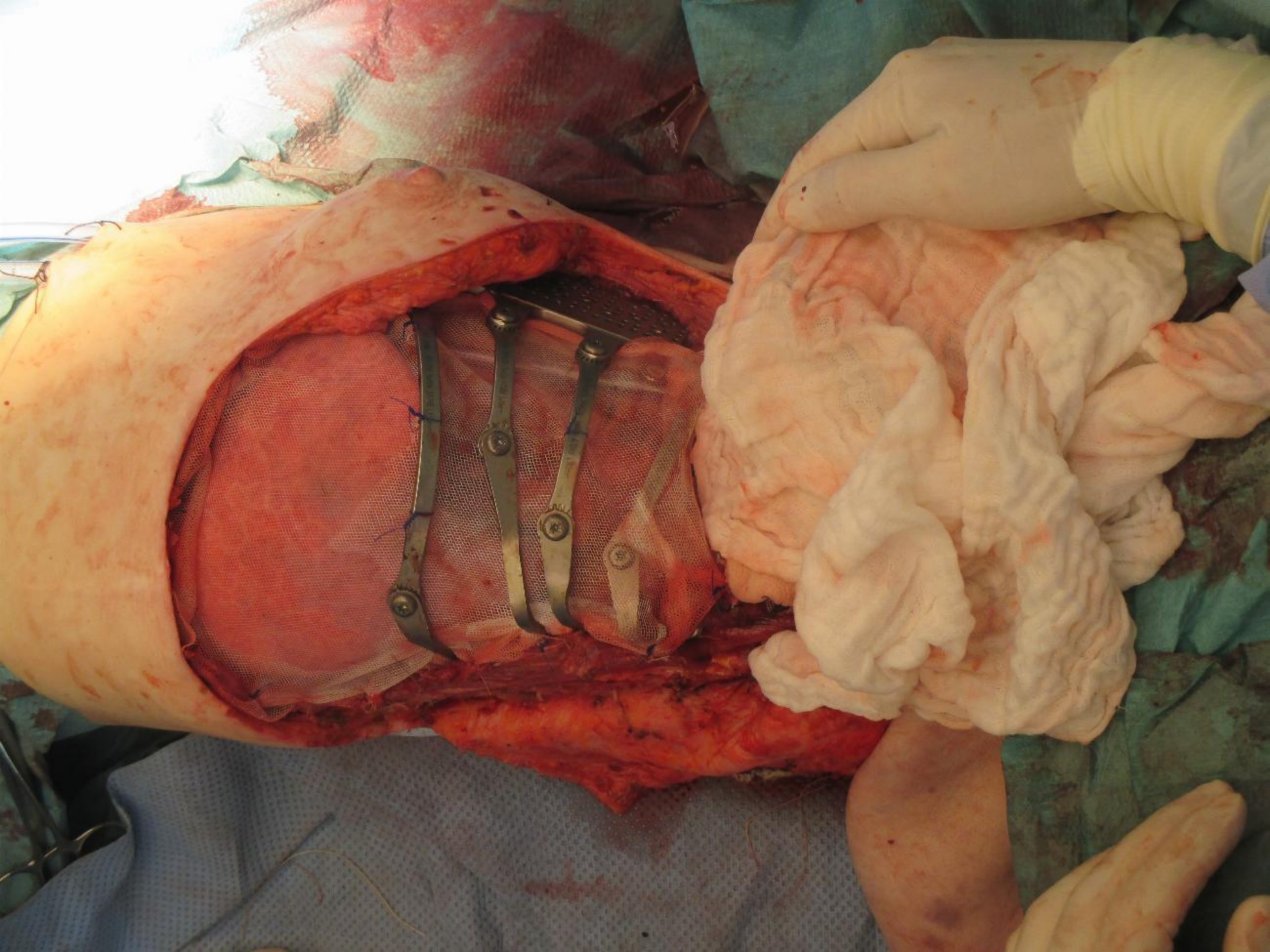


Scapula

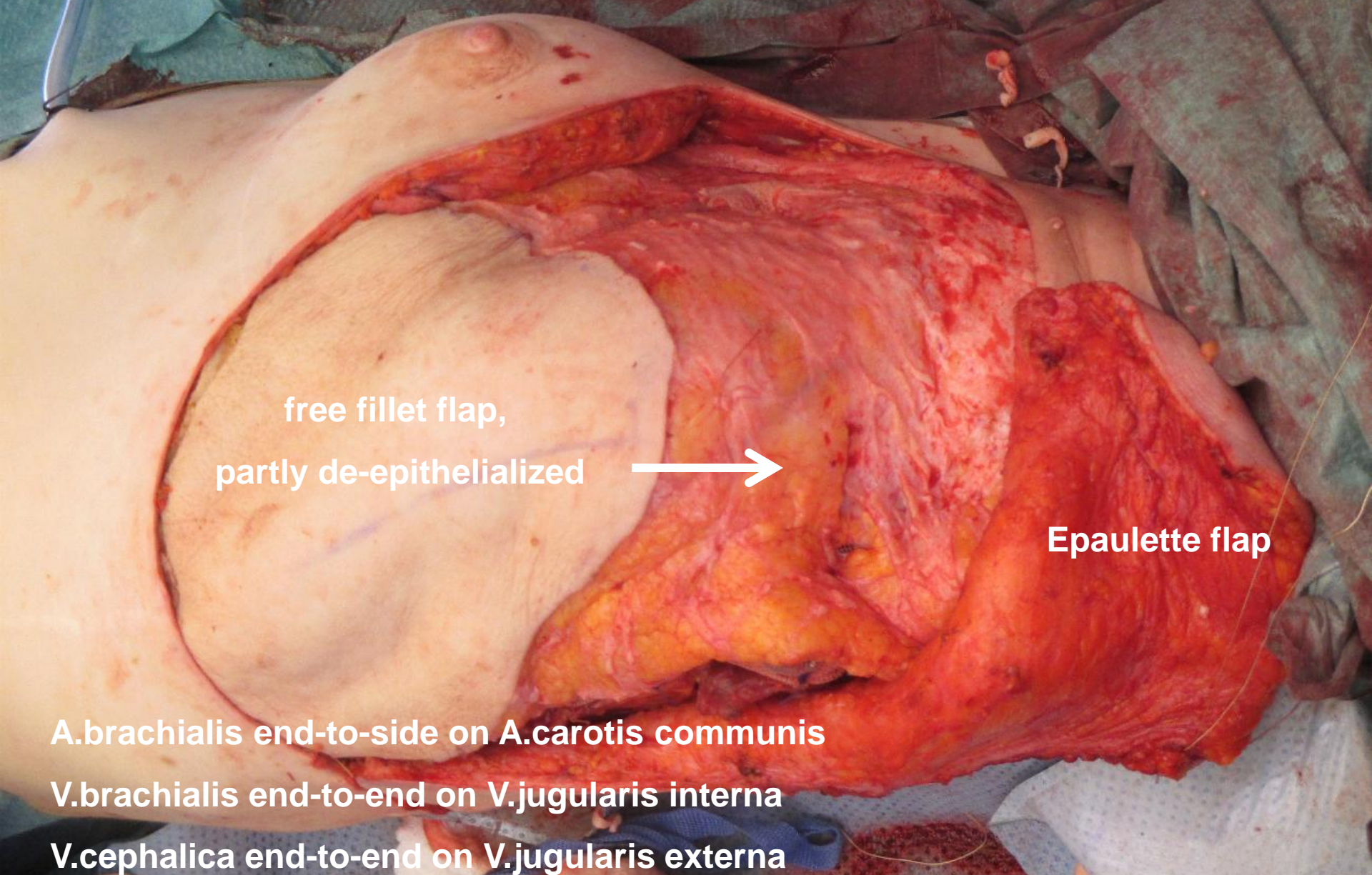








Part 9: soft tissue coverage: local flap combined with free fillet



free fillet flap,
partly de-epithelialized →

Epaulette flap

A.brachialis end-to-side on A.carotis communis

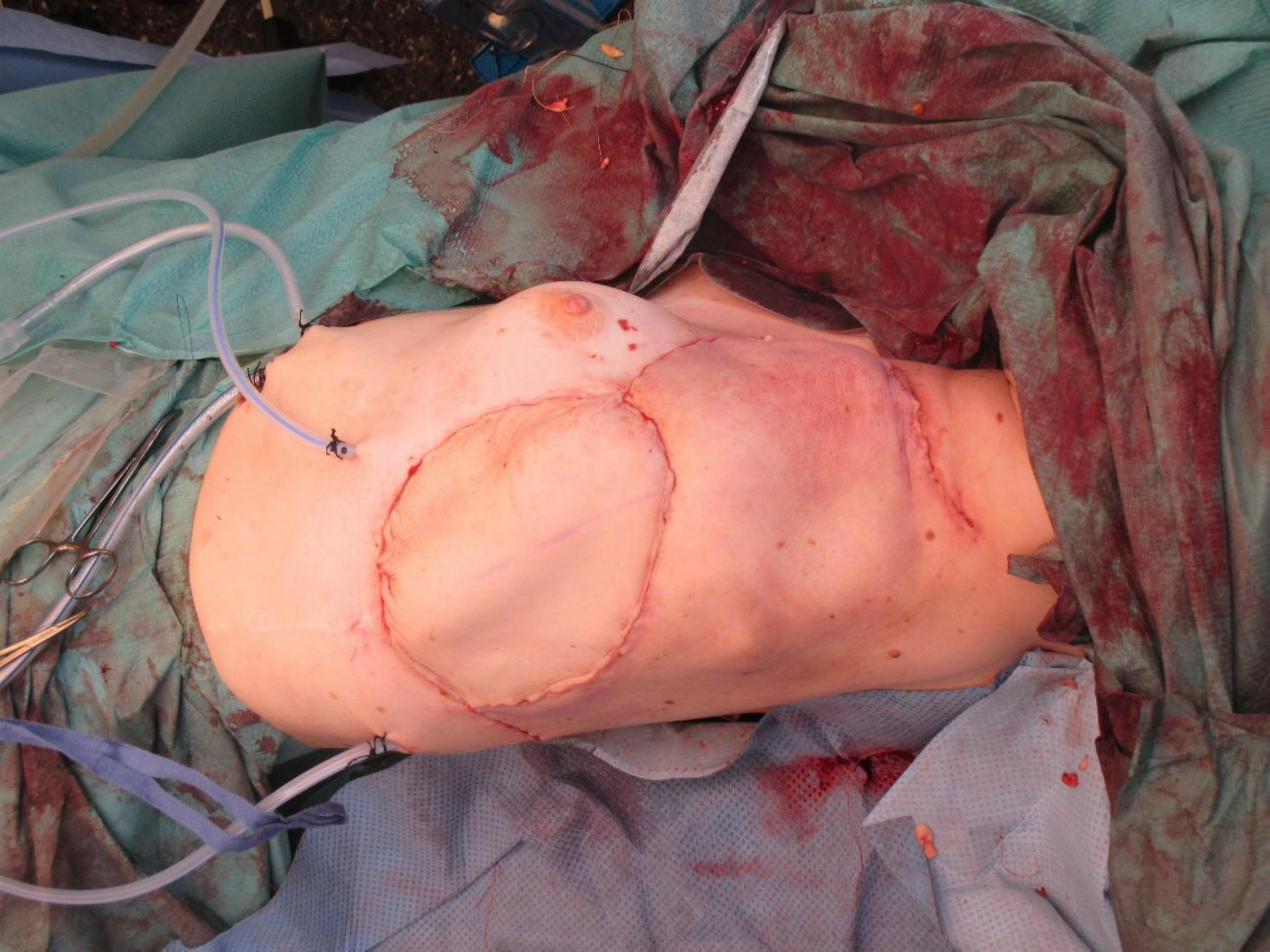
V.brachialis end-to-end on V.jugularis interna

V.cephalica end-to-end on V.jugularis externa

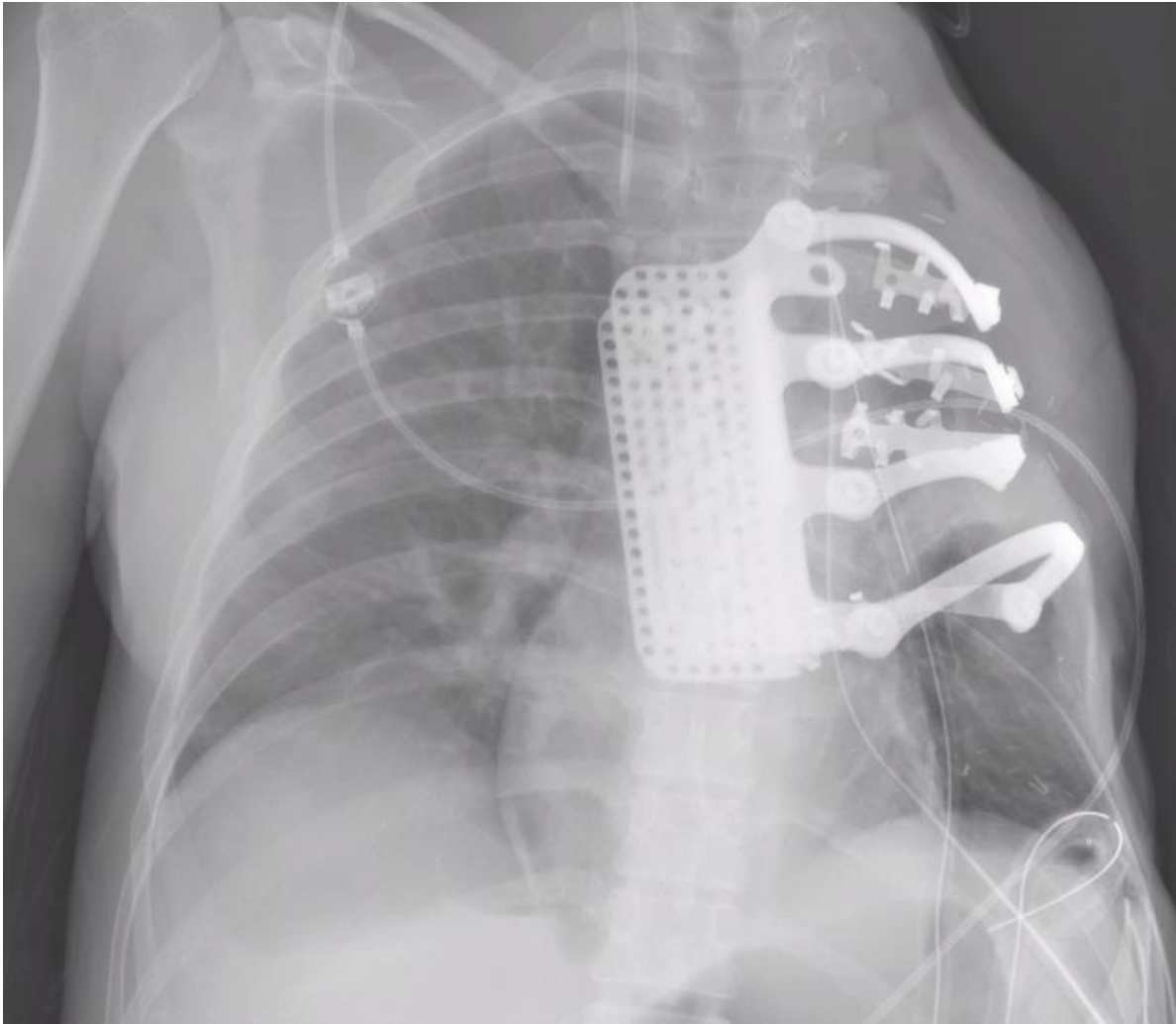


free fillet flap,
partly de-epithelialized

Epaulette flap



Scapula; forequarter extended chest wall lung Postop X ray July 8th 2015



Scapula; forequarter extended chest wall lung

41 yo female; mother of 2 kids



Oct 08, 2016

Scapula; forequarter extended chest wall lung



June 12, 2017

Scapula; forequarter extended chest wall lung



September 19, 2017