Thorakale Aortenaneurysmen

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EBIR

GEFÄSSZENTRUM Passau
zertifiziert durch
Deutsche Röntgengesellschaft
Deutsche Gesellschaft für Gefäßchirurgie

Lernziele

Aneurysmapathologien

Messkriterien TAA

Messkriterien TAAA

Postinterventionelle Bildgebung

Pathologie der thorakalen Aorta

- Arteriosklerotisch
- Dissektion /murales Hämatom
- Penetrierendes Ulcus
- Ruptur
- Trauma (Transsektion)

Arteriosklerot. TAA

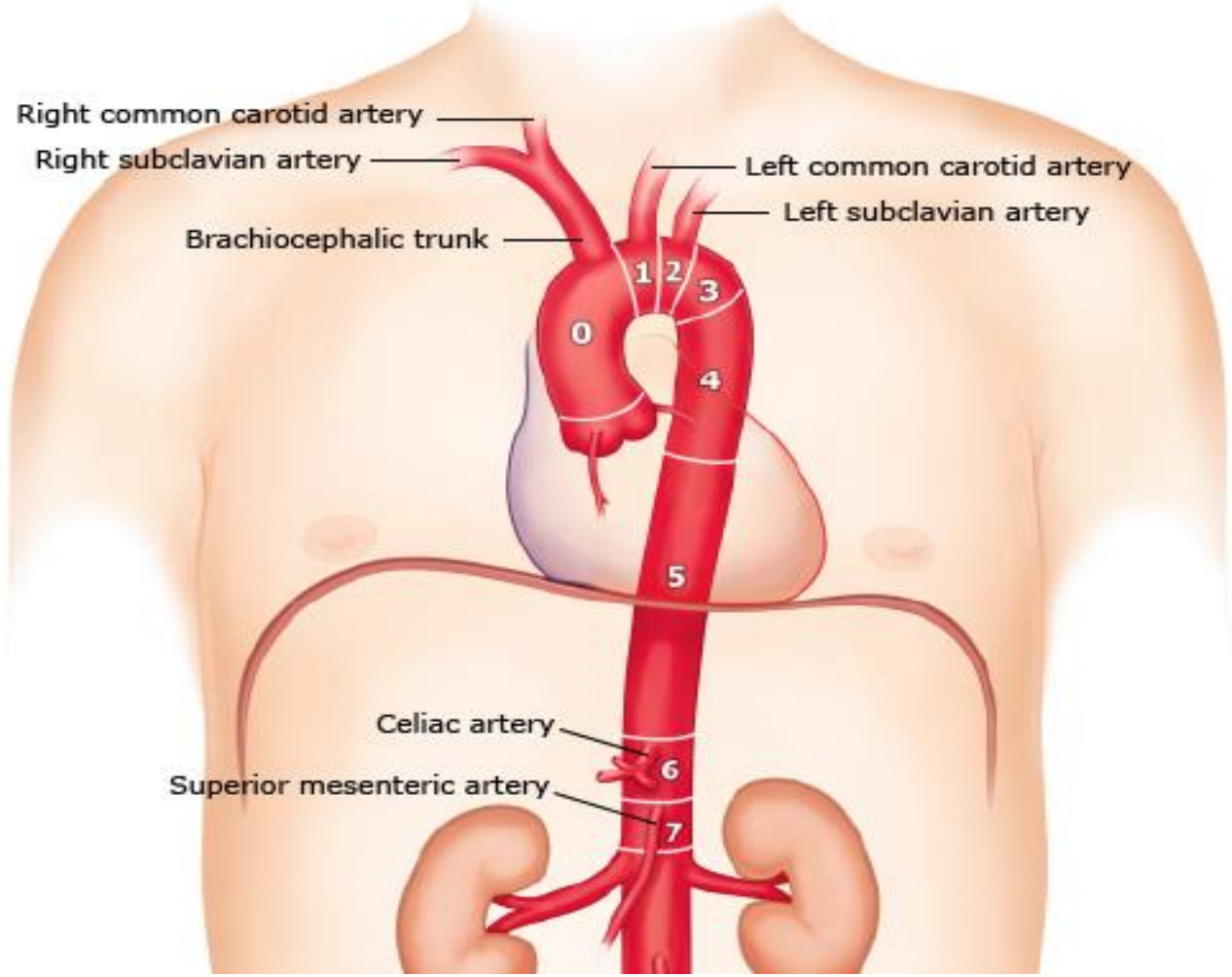
- Prävalenz: 6 / 100.000
- Ratio: Männer – Frauen: 2 bis 4:1
- TAA > 6 cm: Ruptur / Dissekt.rate: 7 % pro Jahr
- TAA > 6 cm: Todesrate: 12 % pro Jahr

TEVAR - Planung

- MSCT (20, 64, 128, 364, dual source ...)
- KM Spiral-CT
- Workstation
  - MPR
  - 3D
  - Mittellinienrekonstruktion
  - Messtools

Ishimaru Klassifikation der prox. Landezonen

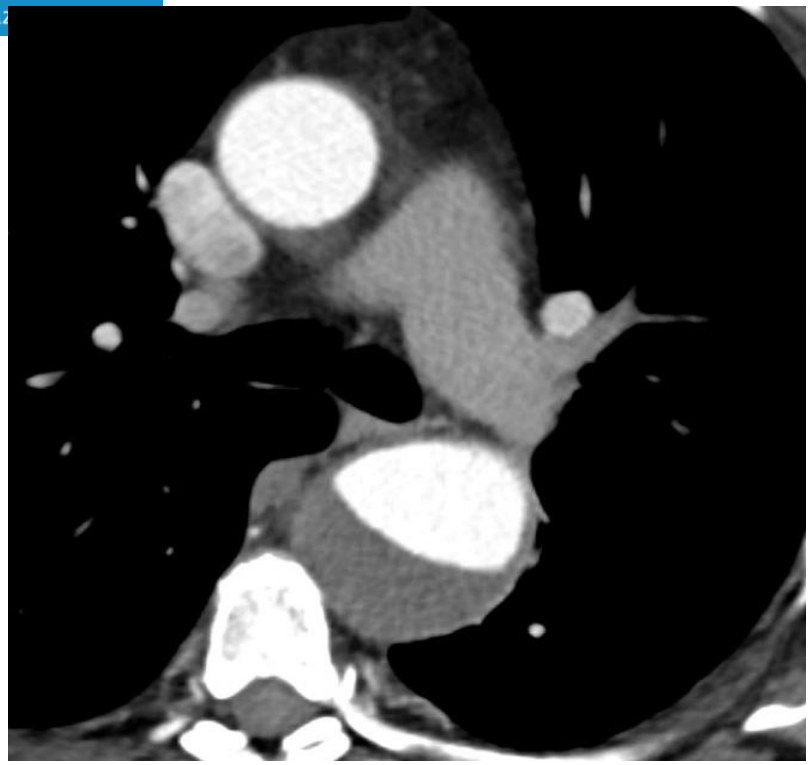
0=Truncus
1=ACC li
2=A. subcl.
3=Isthmus
4= Descend.

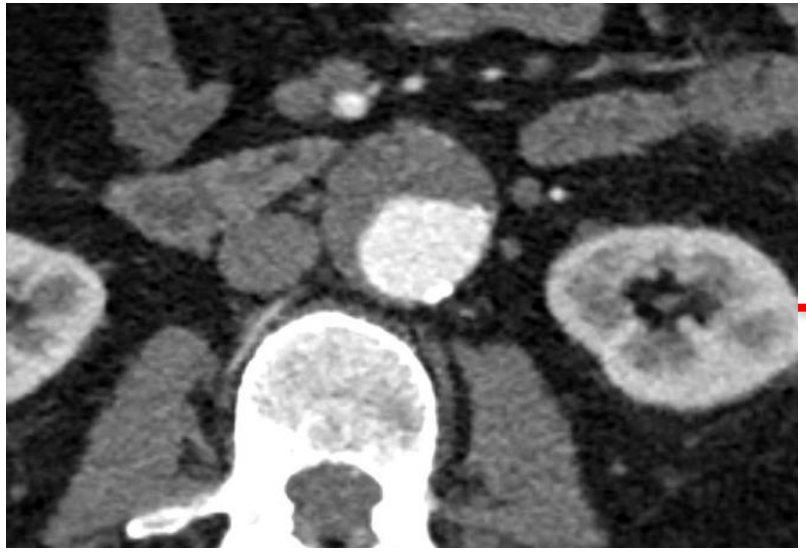


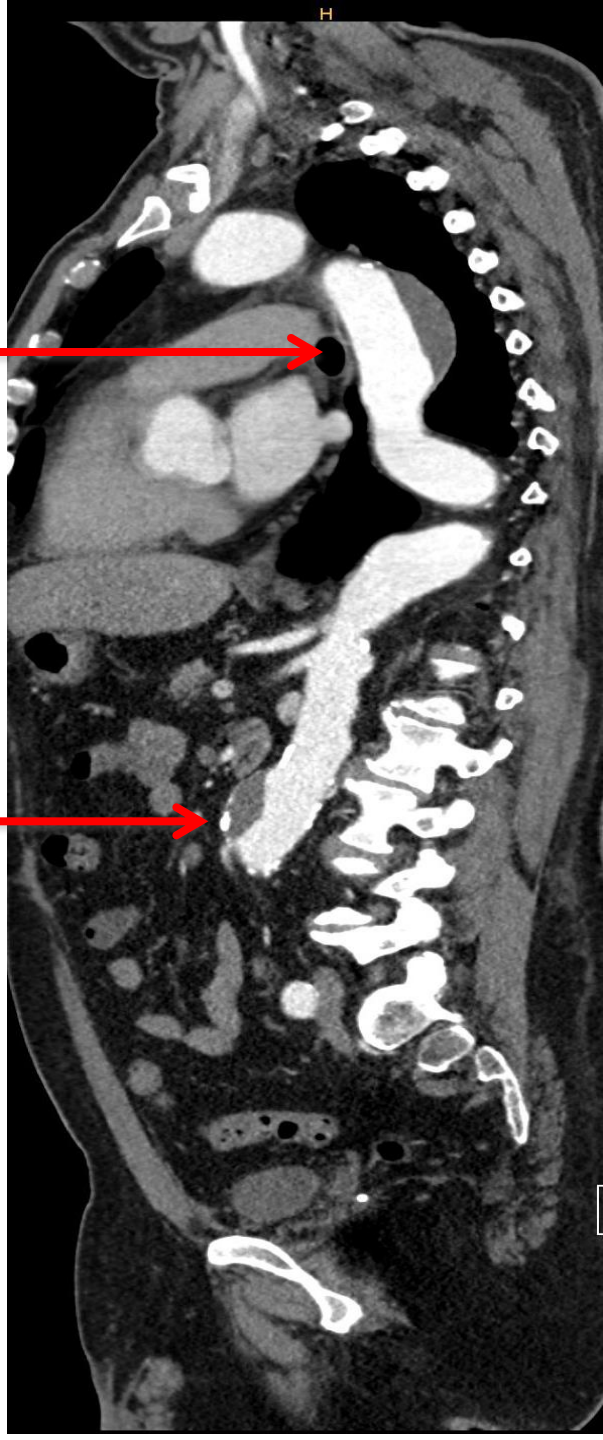
Ein Beispiel eines TAA (und BAA)

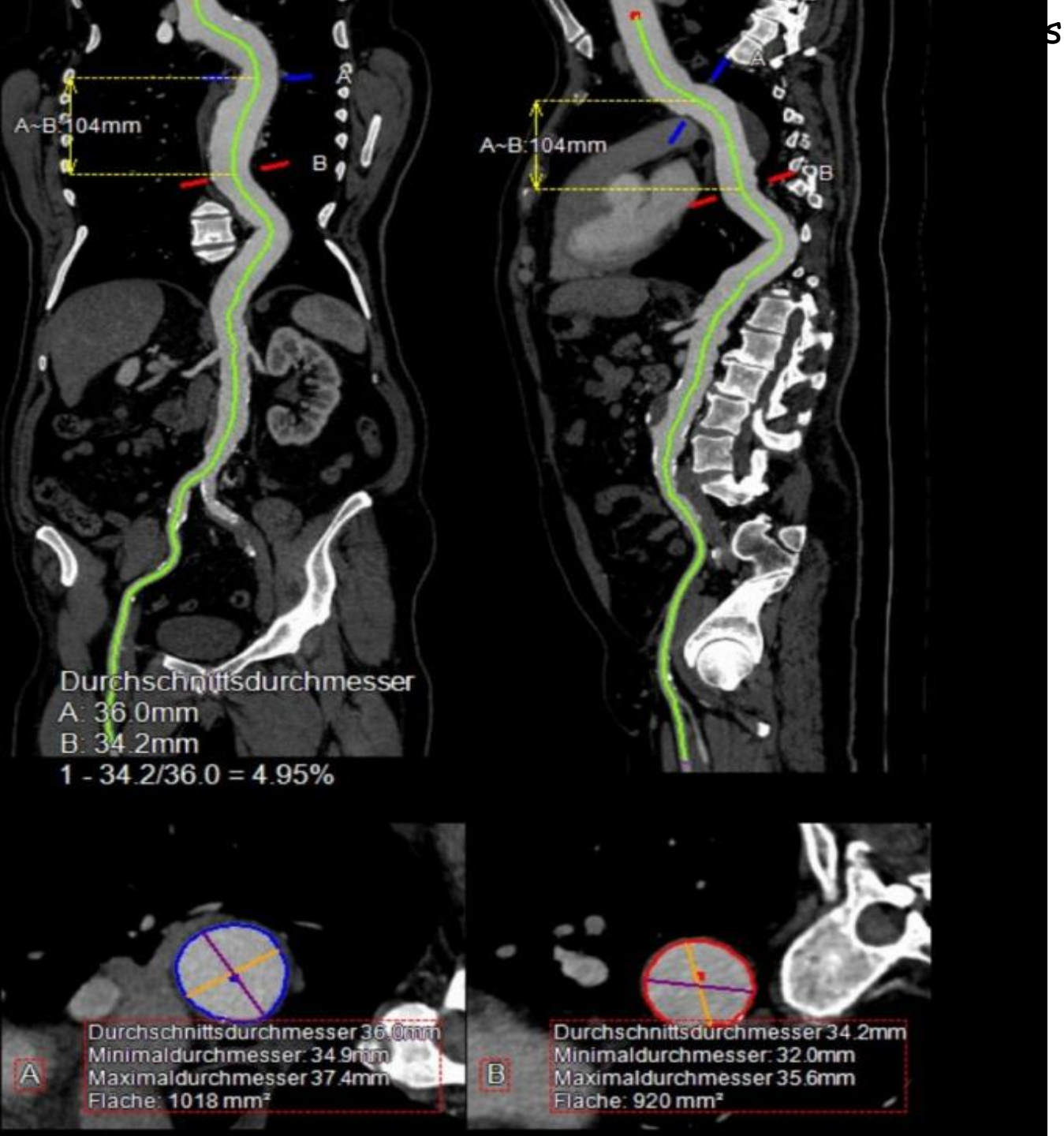
G.H. 66 J m.

Thorakale Aortenaneurysmen

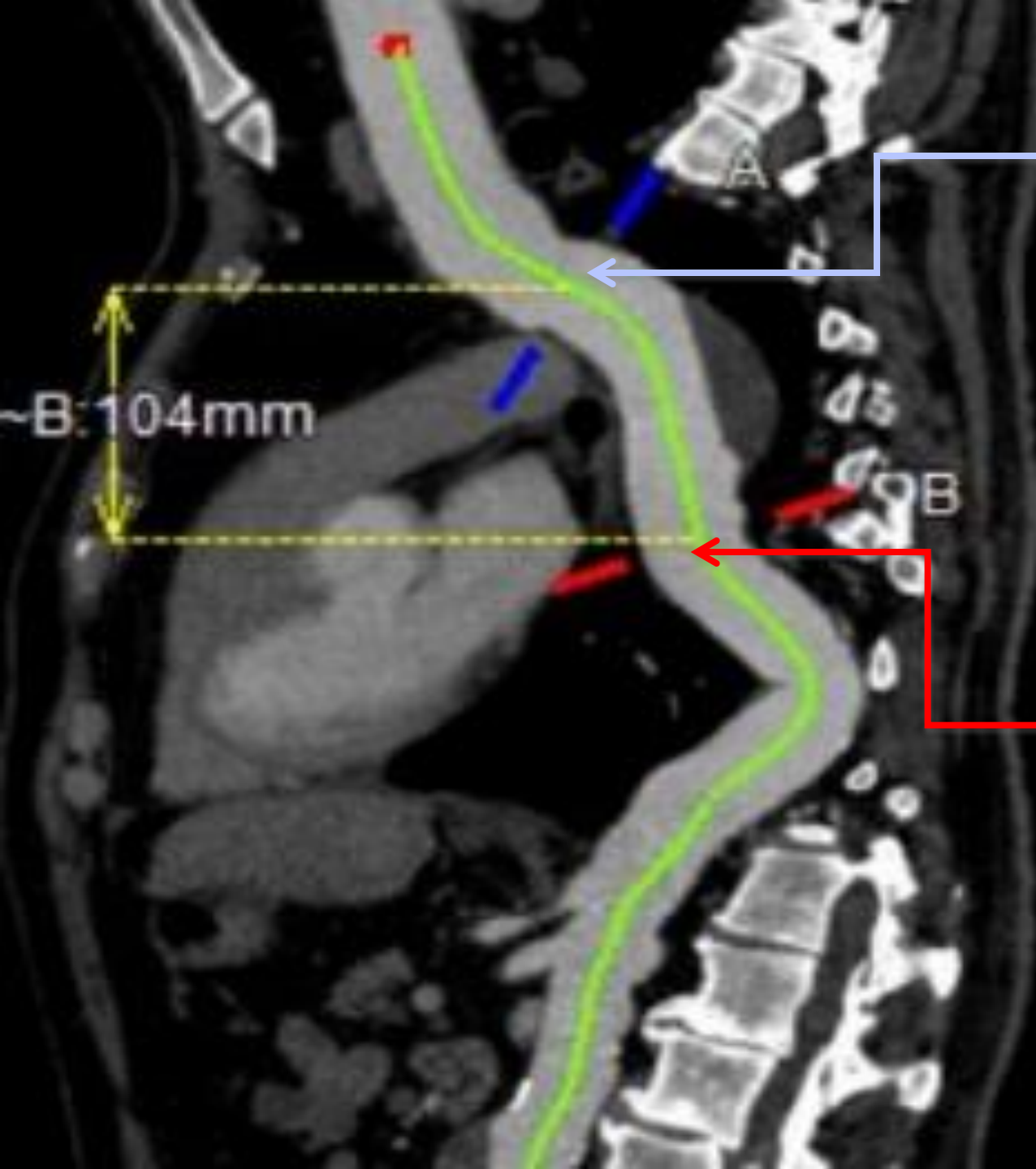








CLR
an Workstation

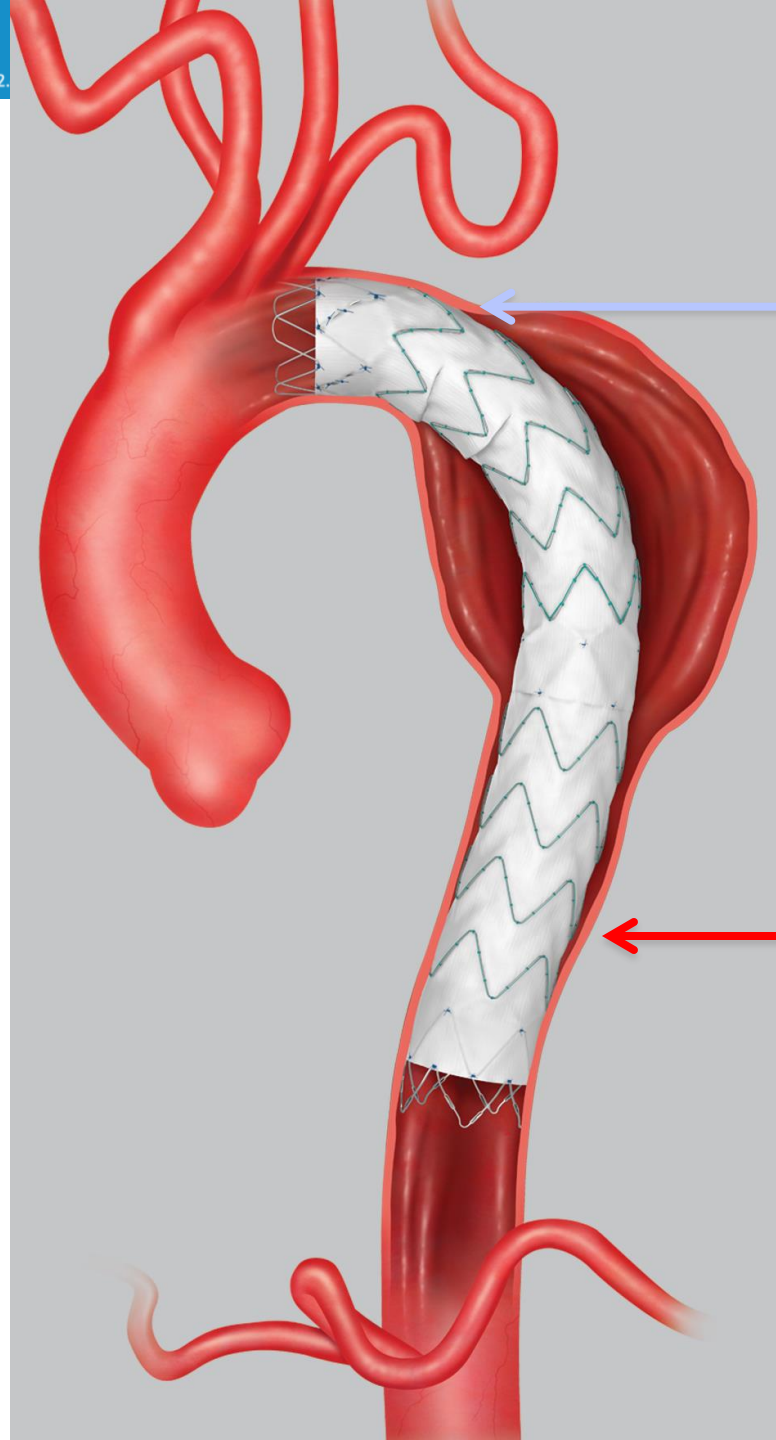


prox. Landezone

3

dist. Landezone

im gesunden Abschnitt
jeweils ≥ 20 mm

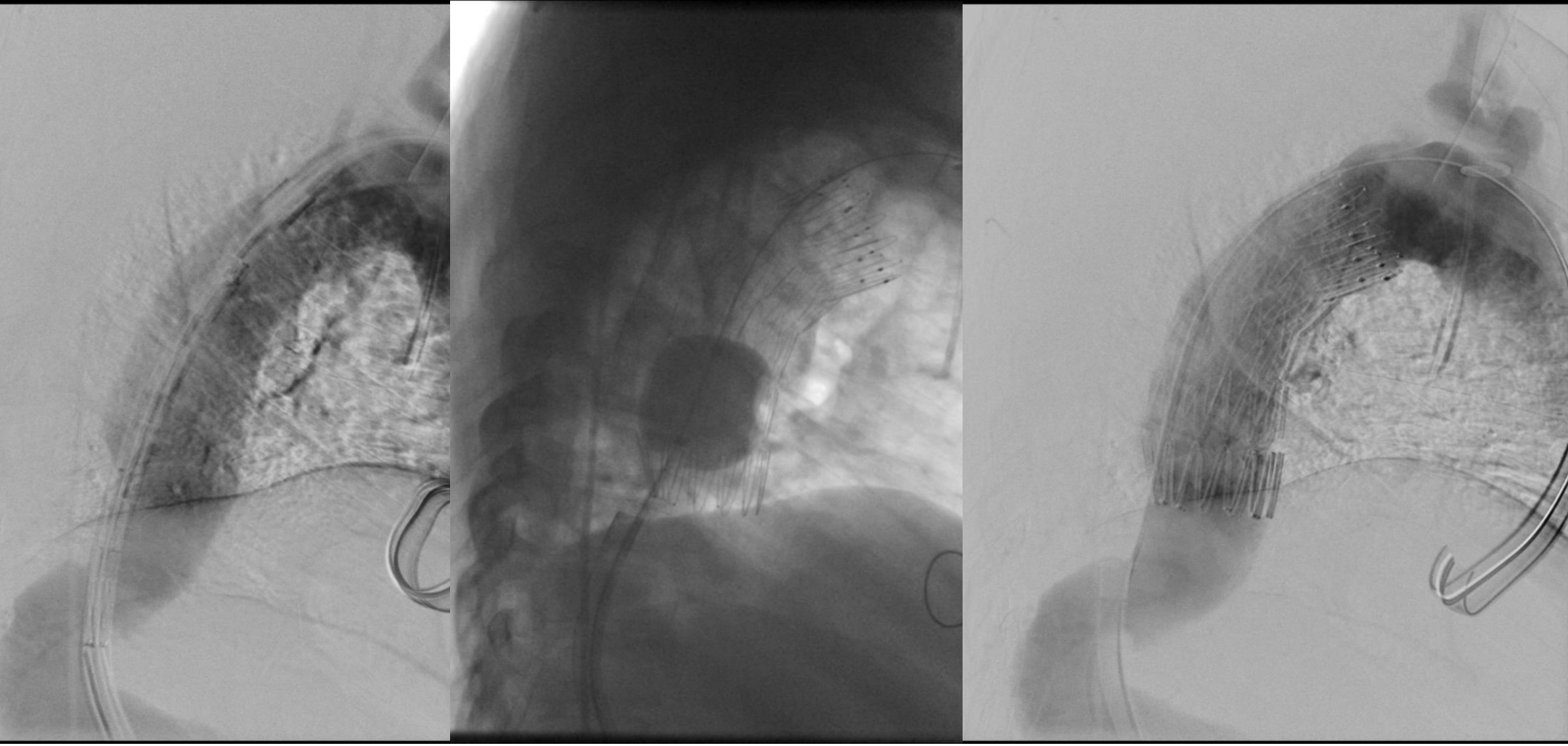


prox. Landezone

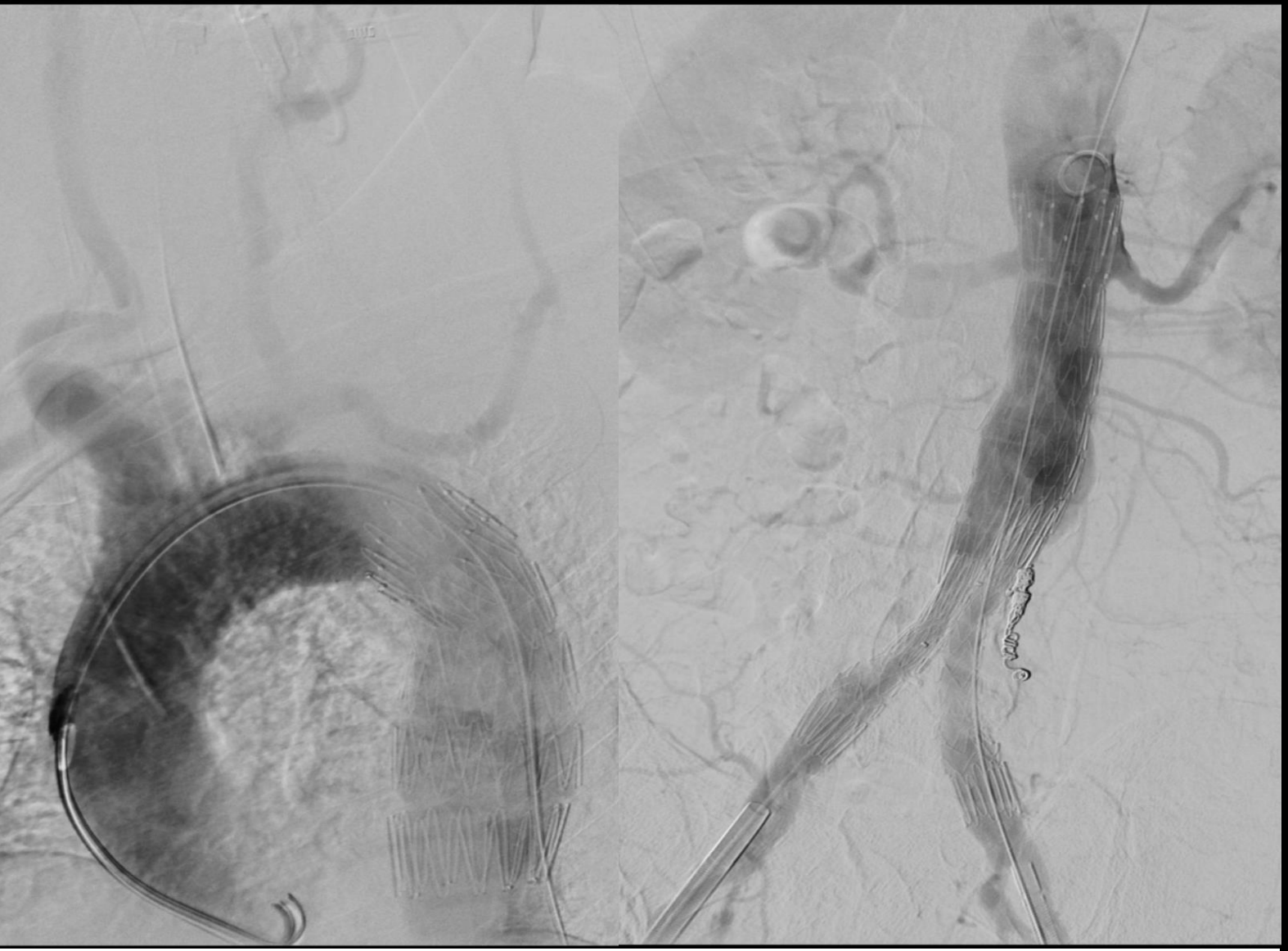
dist. Landezone

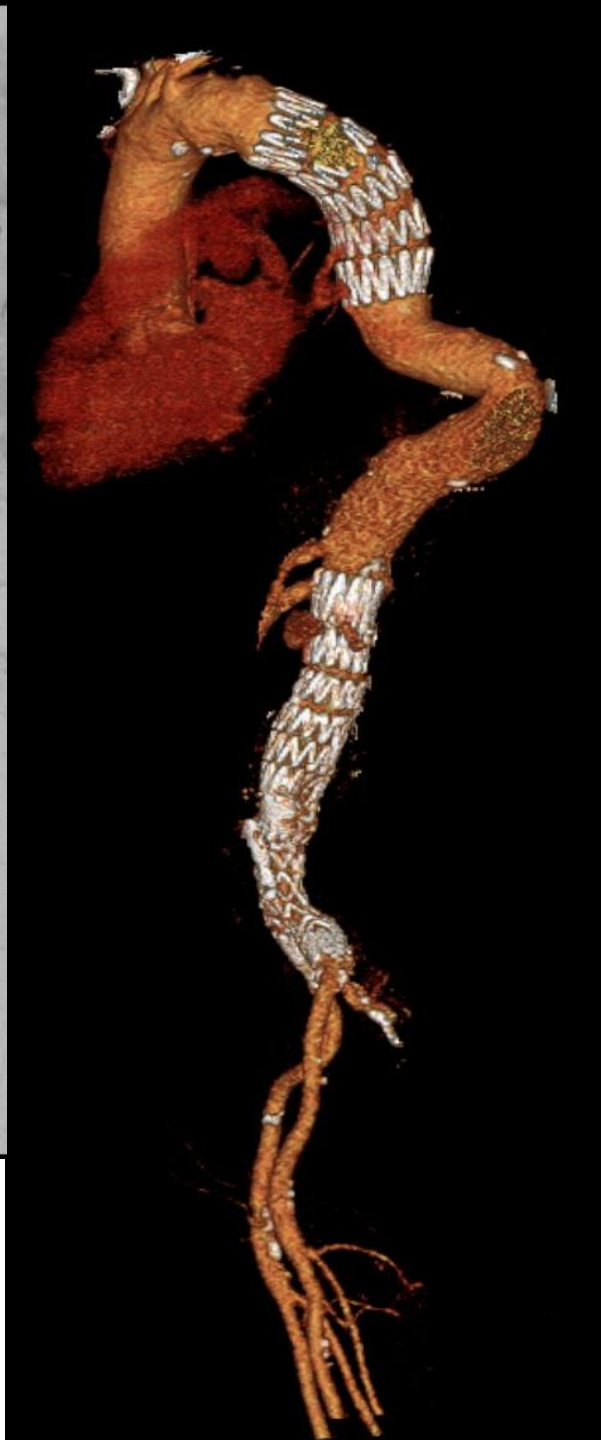
Prothesenauswahl

Länge: wie gemessen
Durchmesser: Ø + 15%



ITN
re. femoral OP
Spinalkanaldrainage
TEVAR





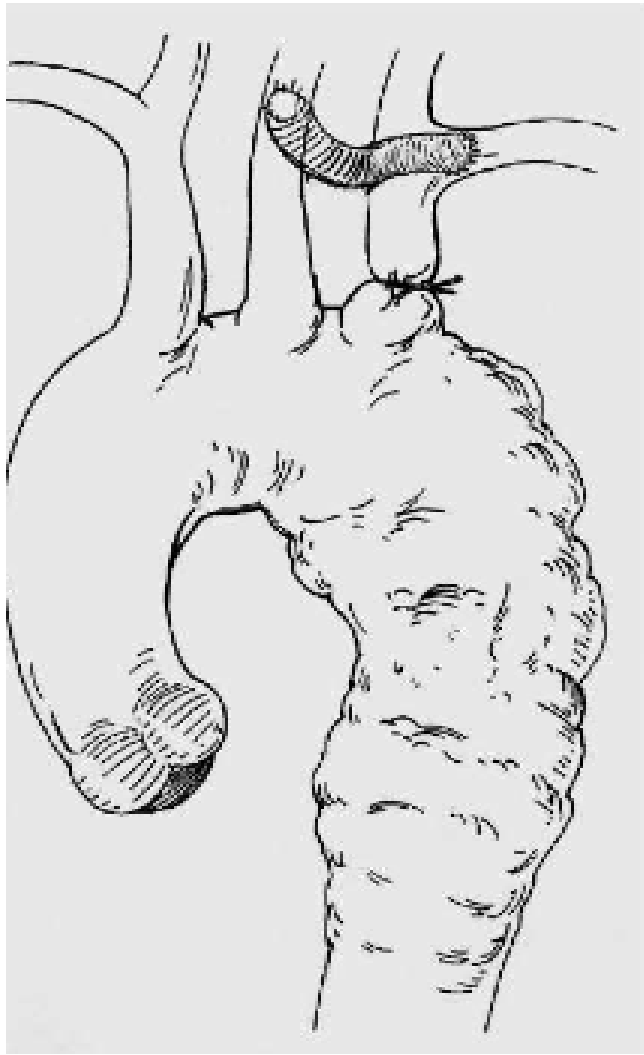
ITN
re. femoral OP
Spinalkanaldrainage
TEVAR

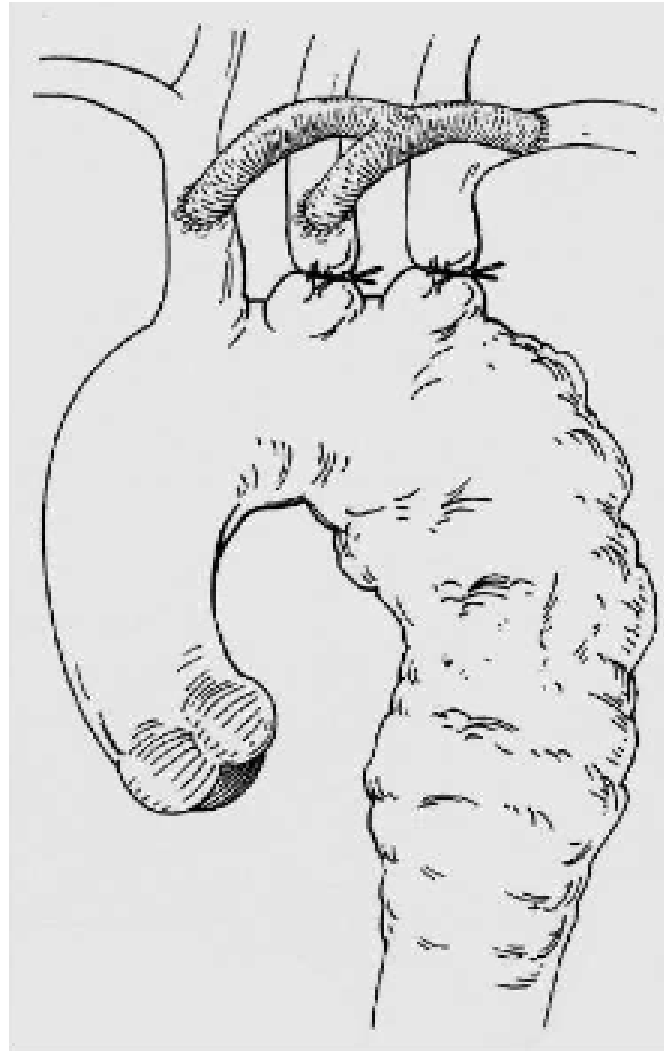
... und EVAR

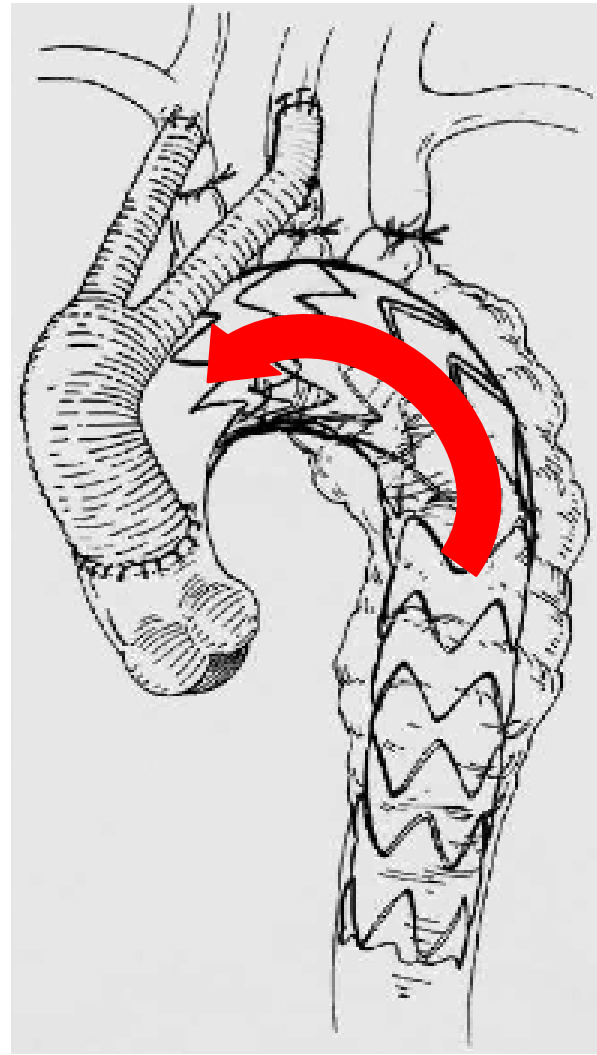
Wenn die proximale Landezone nicht reicht?

Thorakale Aortenaneurysmen

Bypässe

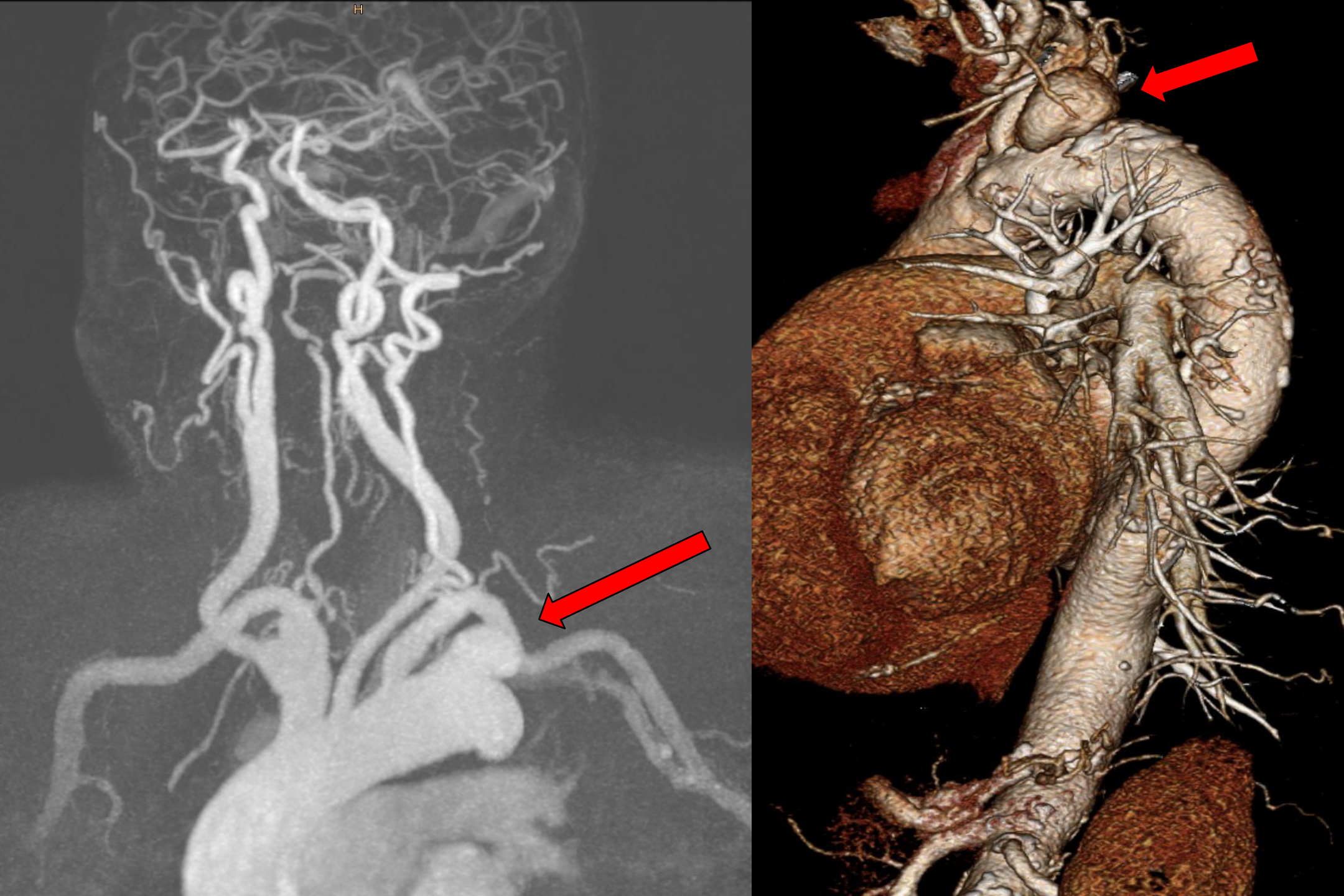


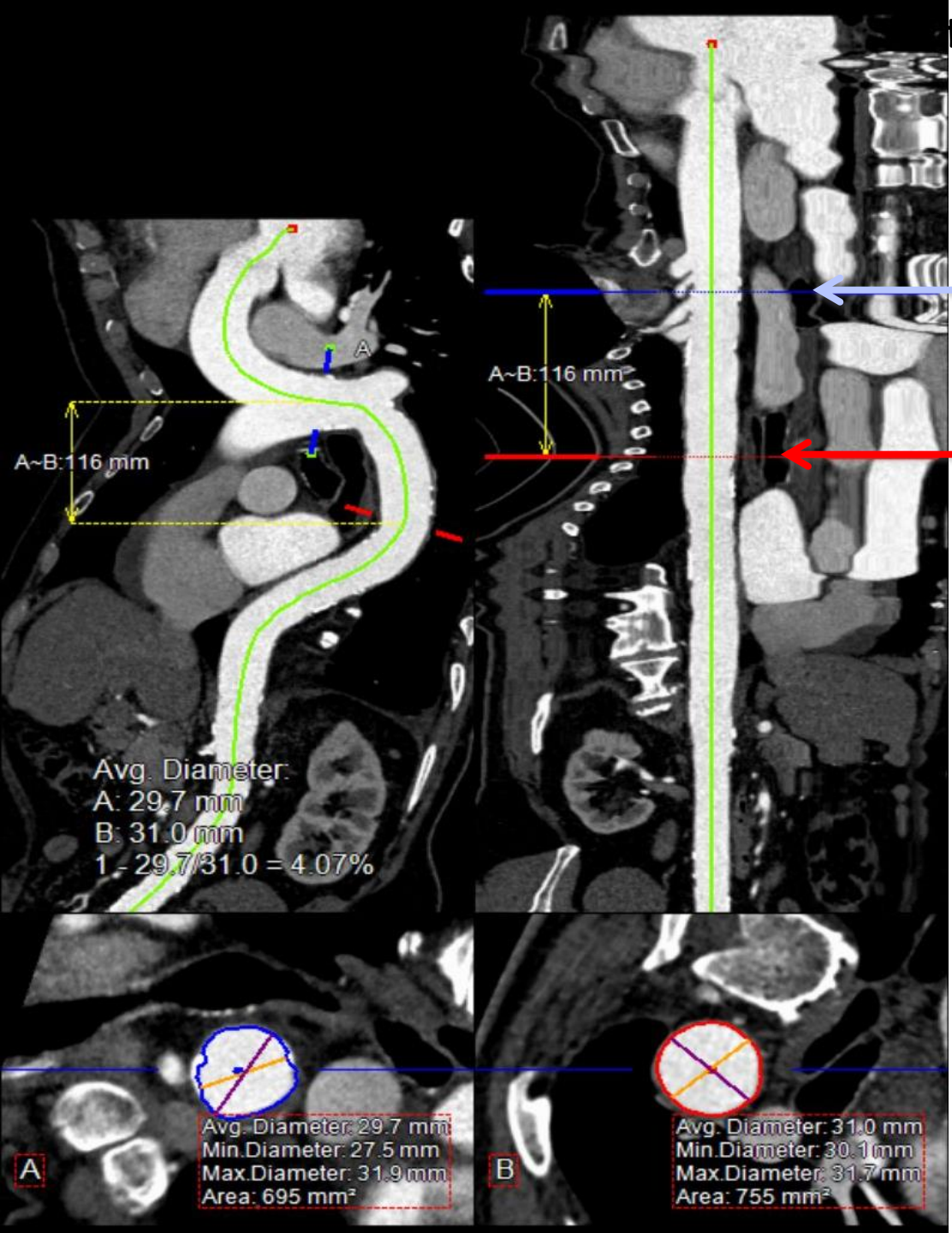




zur Verlängerung der Landezone

Ein Beispiel eines TAA
L.F. 86 J m.

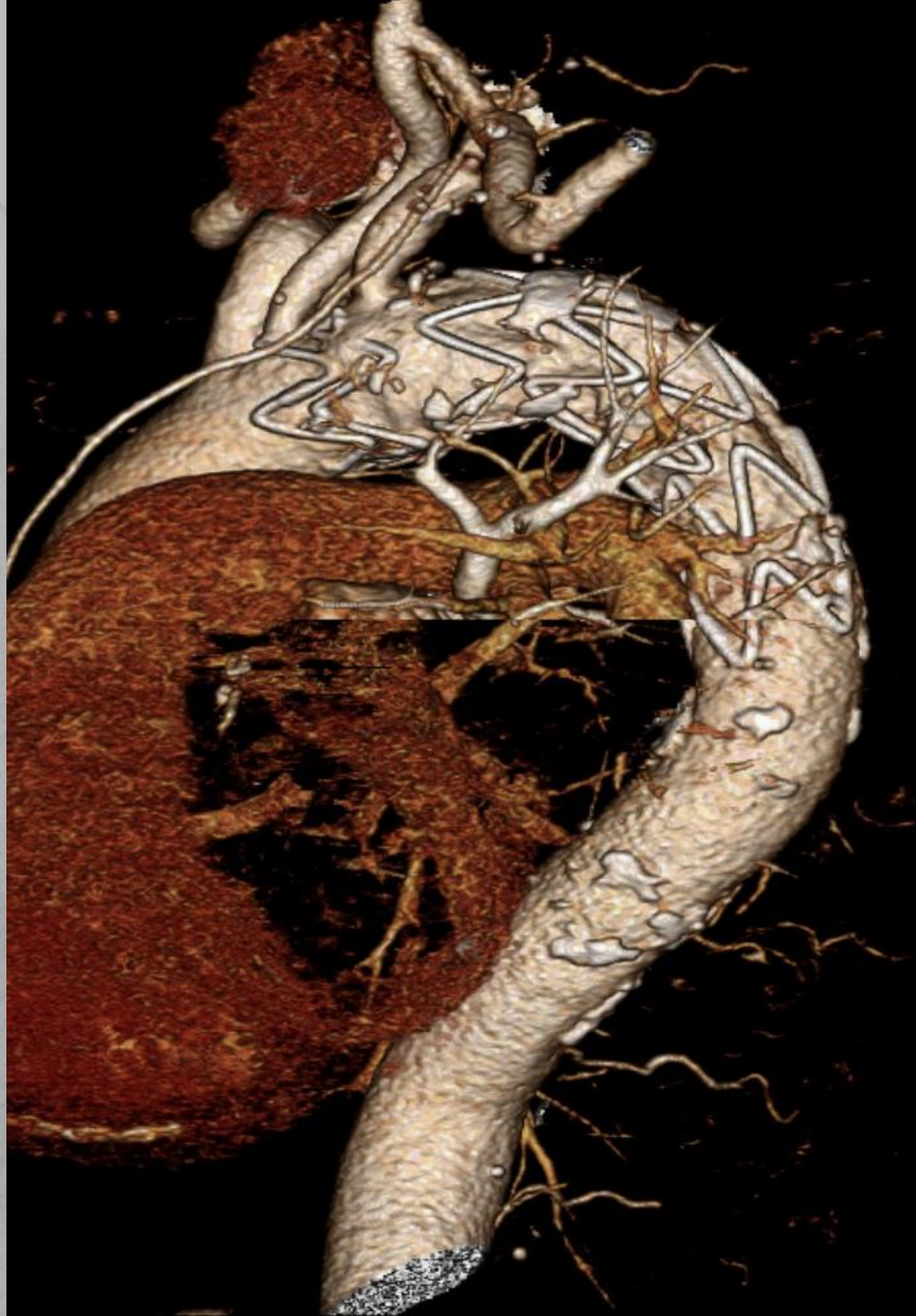




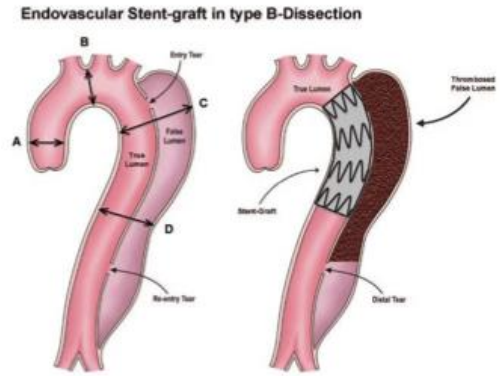
1

prox. Landezone

dist. Landezone



Dissektion



Akute Stanford B Dissektion

- Symptomatisch
  - Gesamt-Aorten-DM >5,5cm
  - Malperfusions-Syndrom
  - (Drohende) Ruptur

Chronische Stanford B Dissektion:

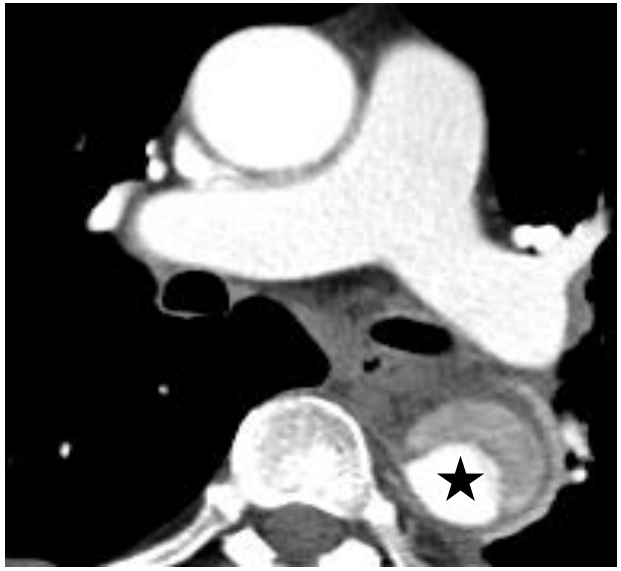
Aortendurchmesser: > 60 mm
Zunahme des TAA Durchmessers > 10 mm /y

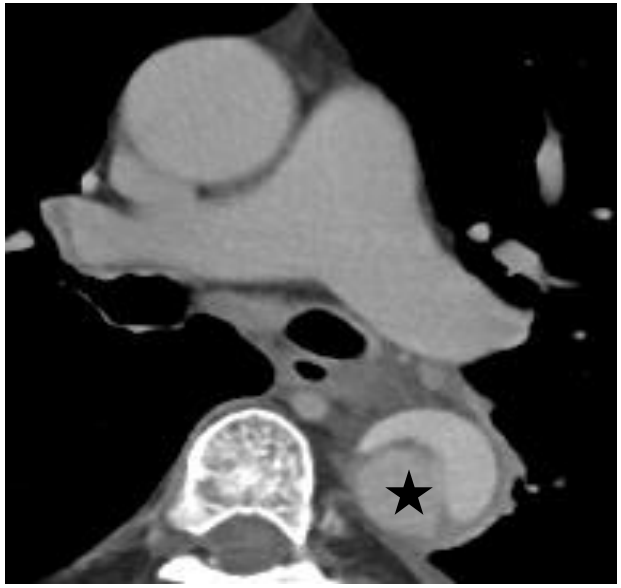
Aortenruptur

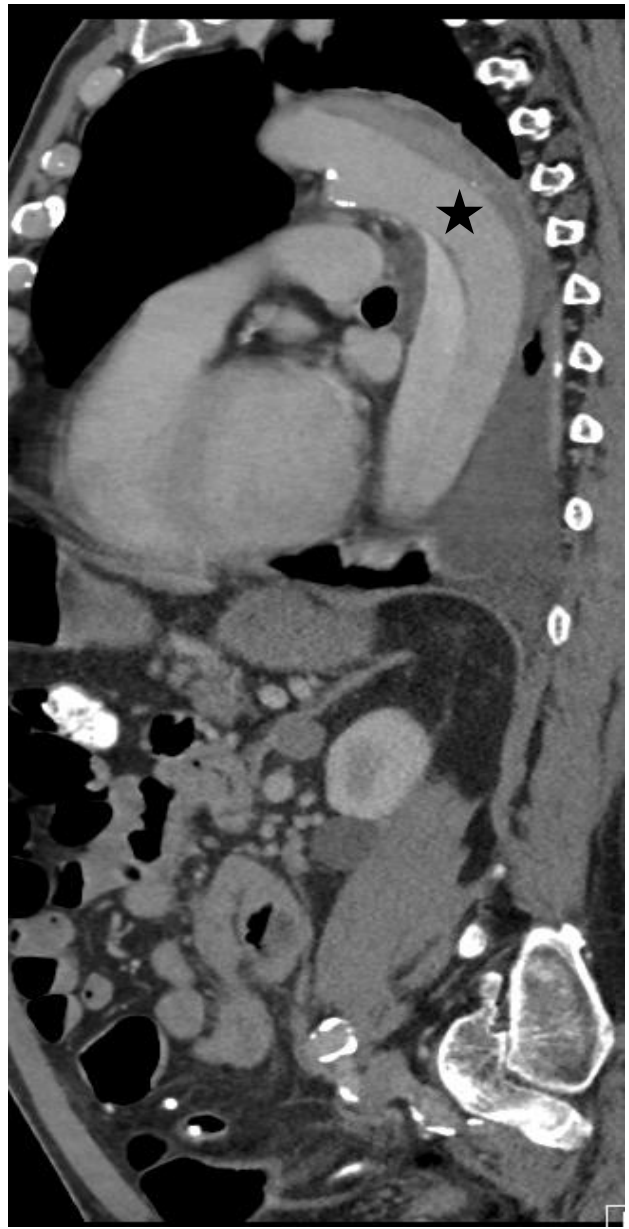
Ein Beispiel einer akuten Typ B Dissektion (und inzident. BAA)

72 J m.
stärkste Rückenschmerzen,
Inzidentelles BAA&AICA >5.5

Typ B Dissektion & BAA

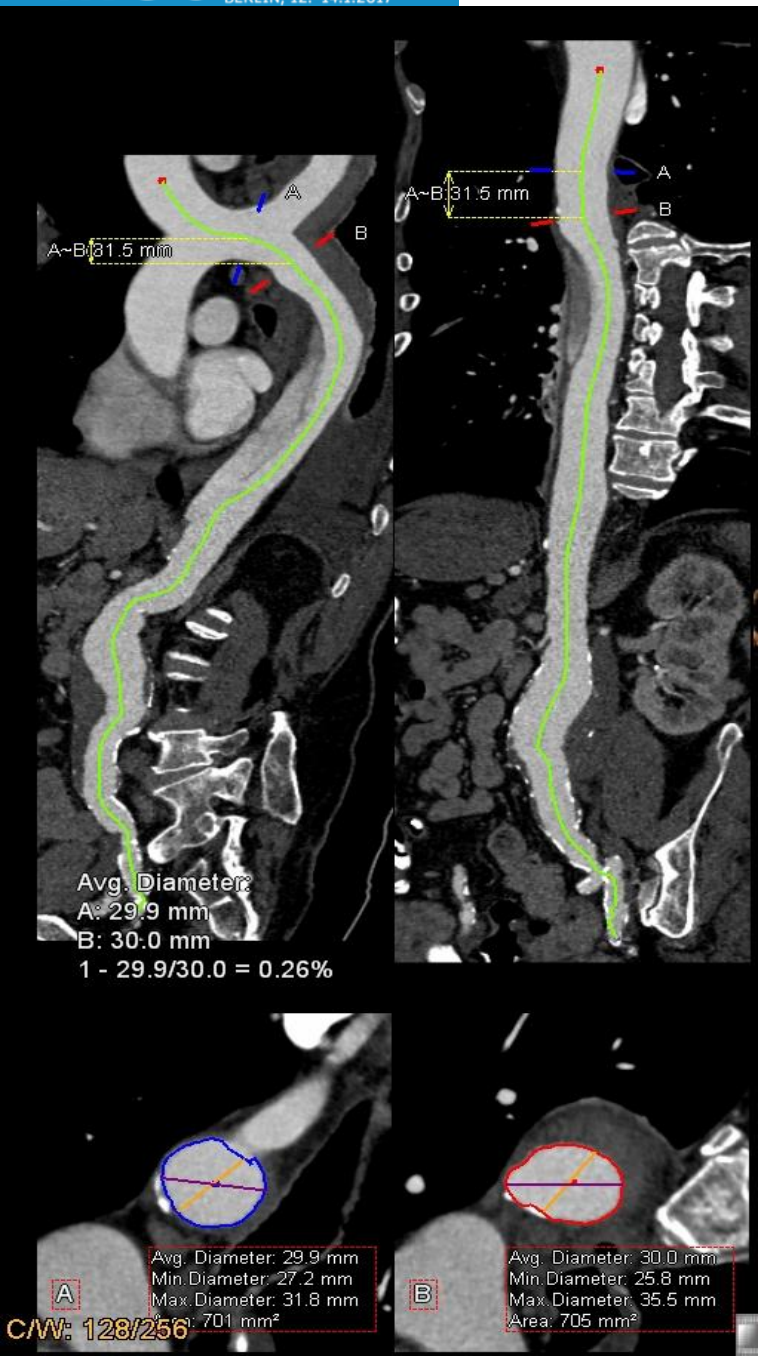


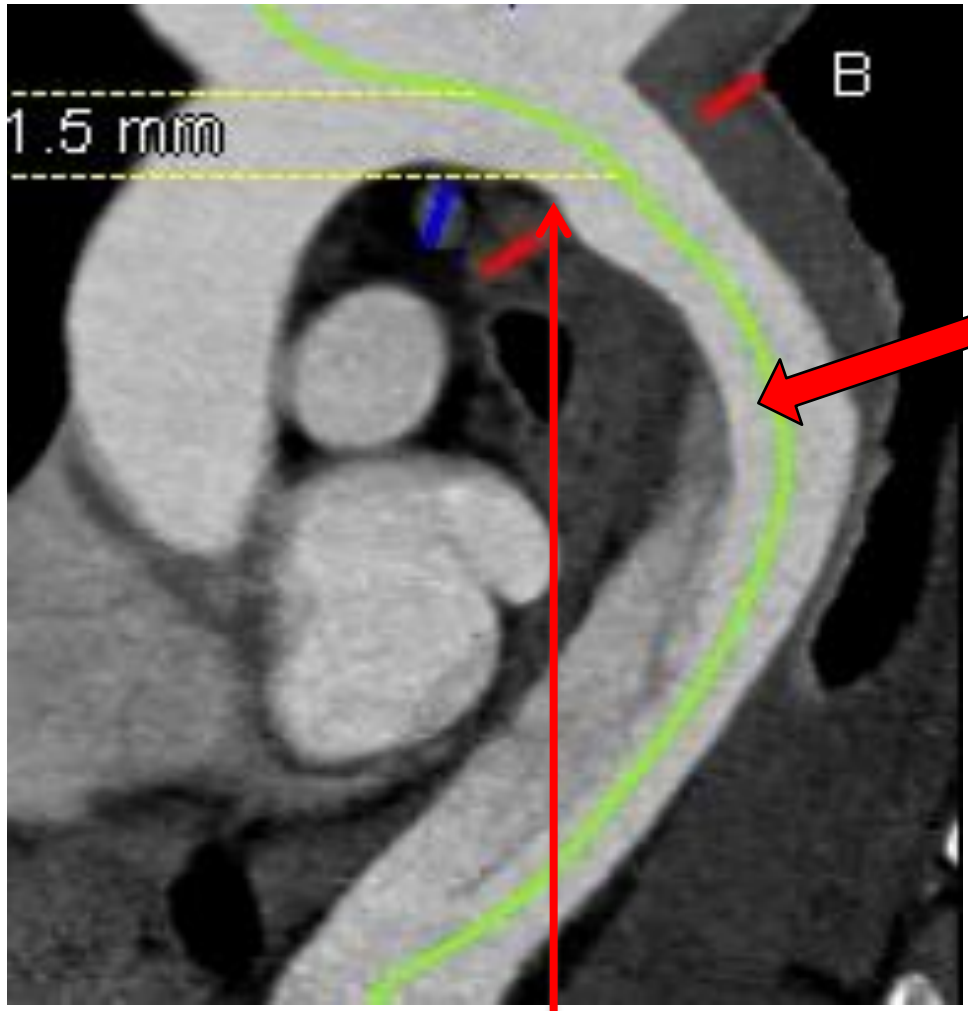




★ wahres Lumen

Thorakale Aortenaneurysmen

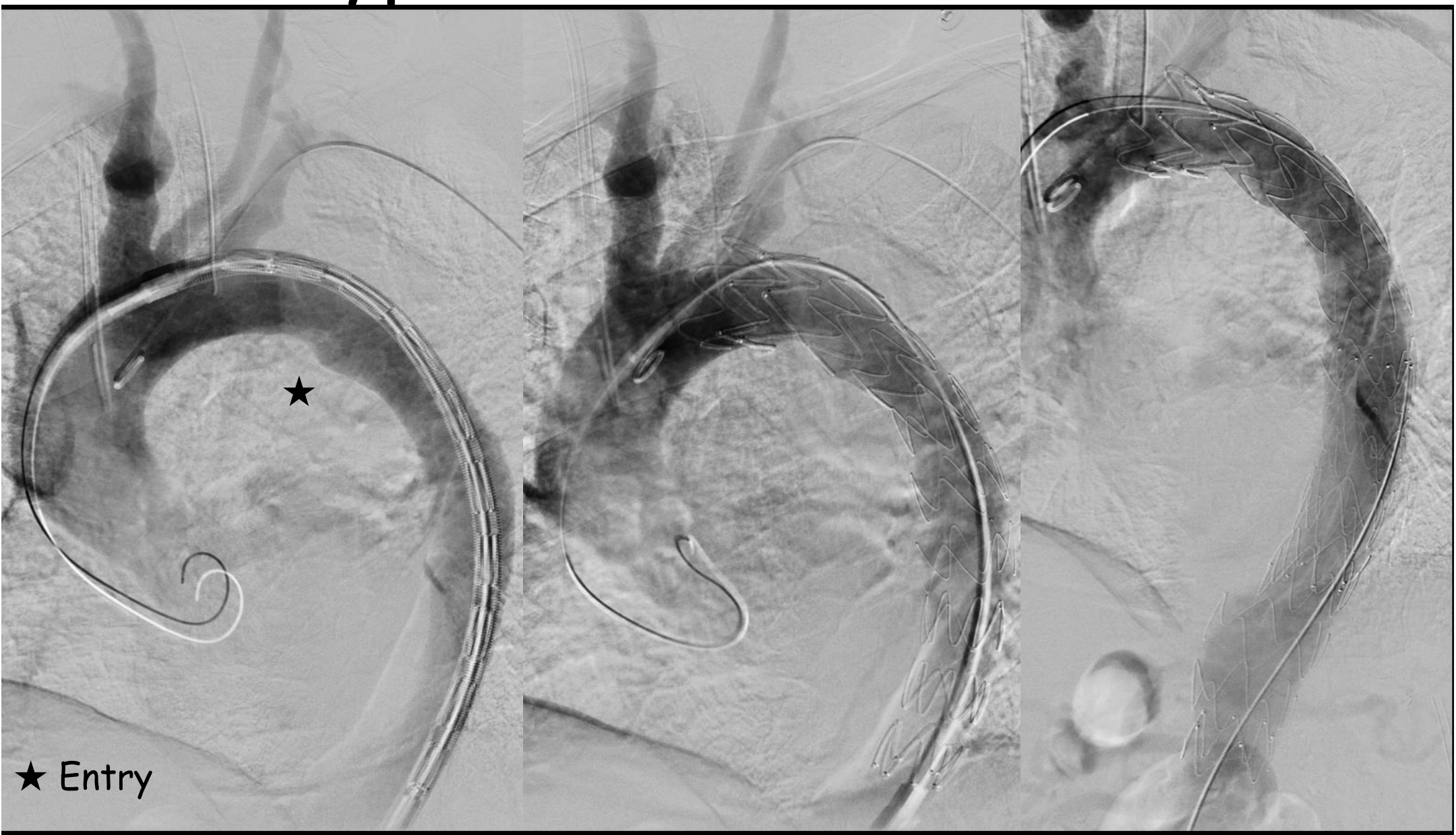




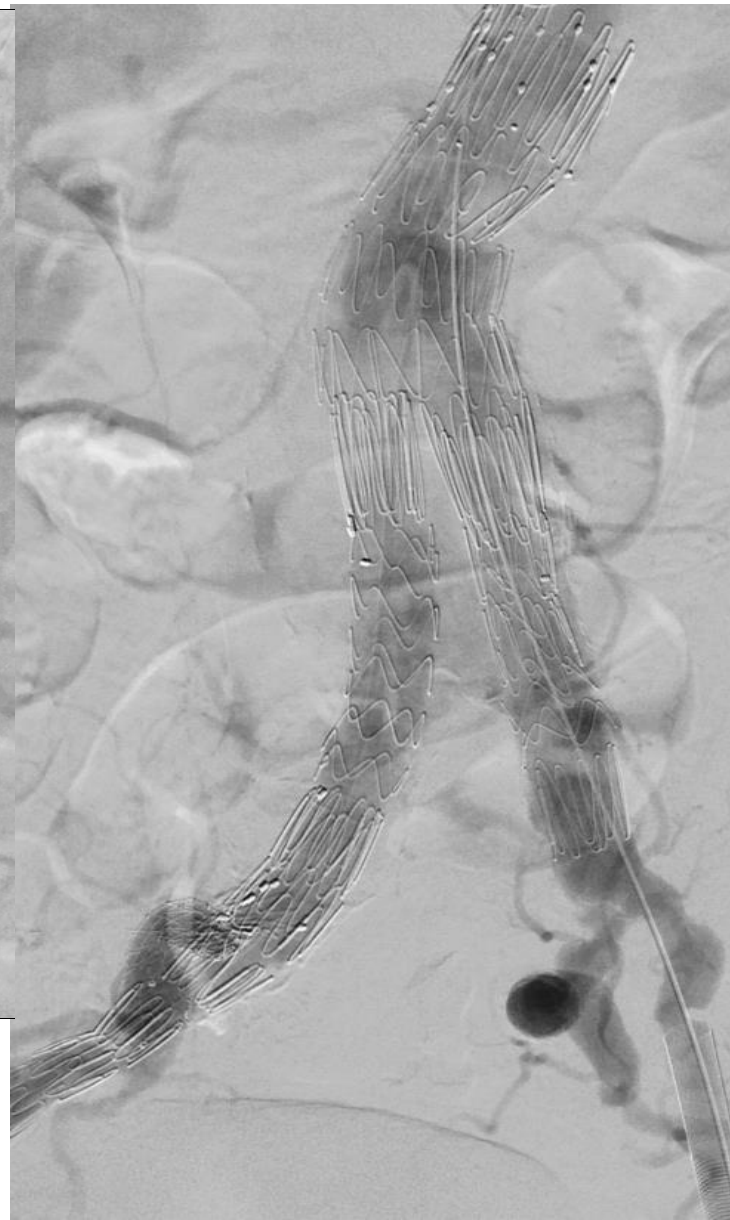
Entry

prox. Landezone

Typ B Dissektion & BAA



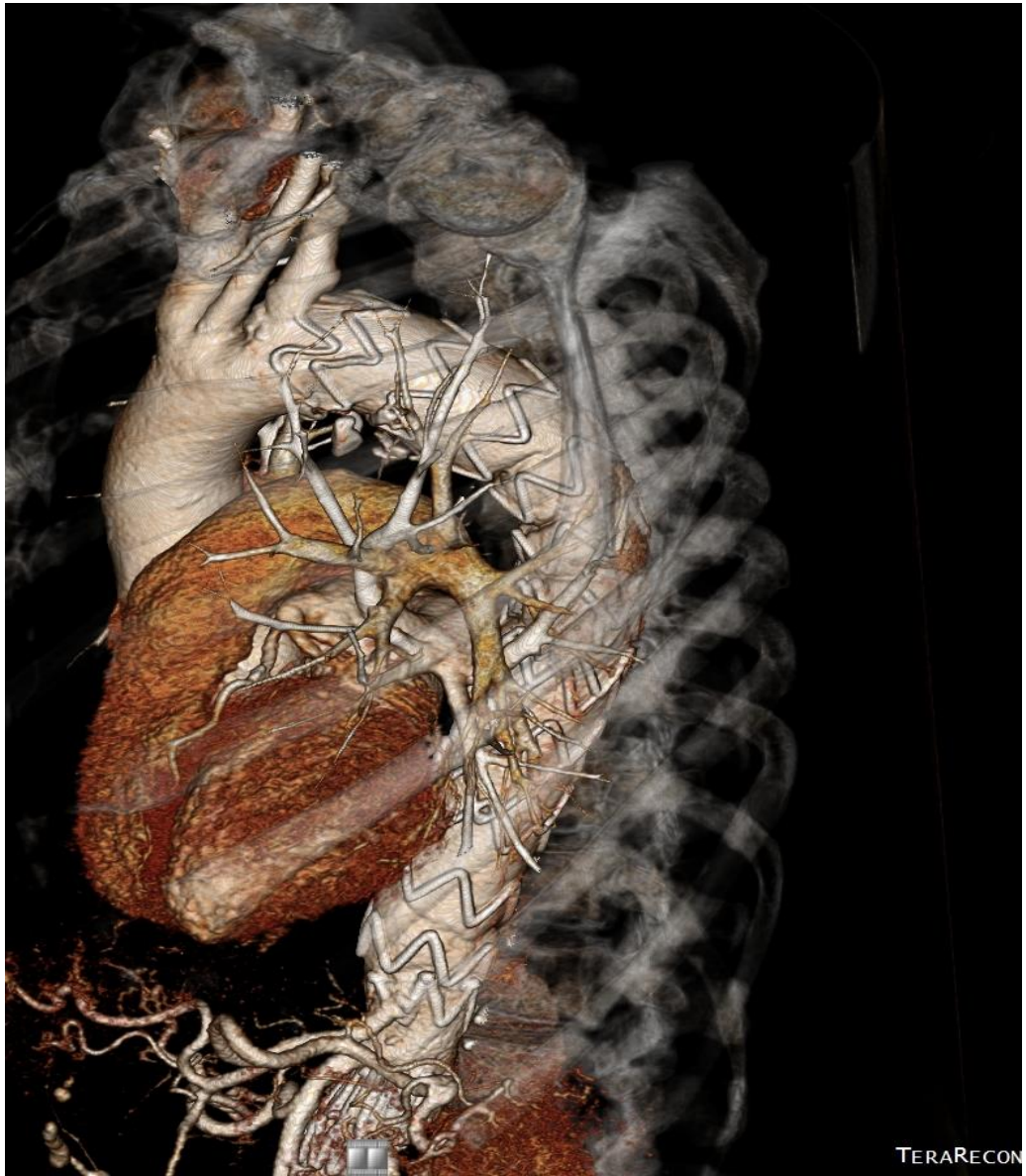
Typ B Dissektion & BAA



Inzidentelles BAA&AICA >5.5
TEVAR, 2-zeitig EVAR mit Iliakalrekon. re

Thorakale Aortenaneurysmen

Typ B Dissektion & BAA



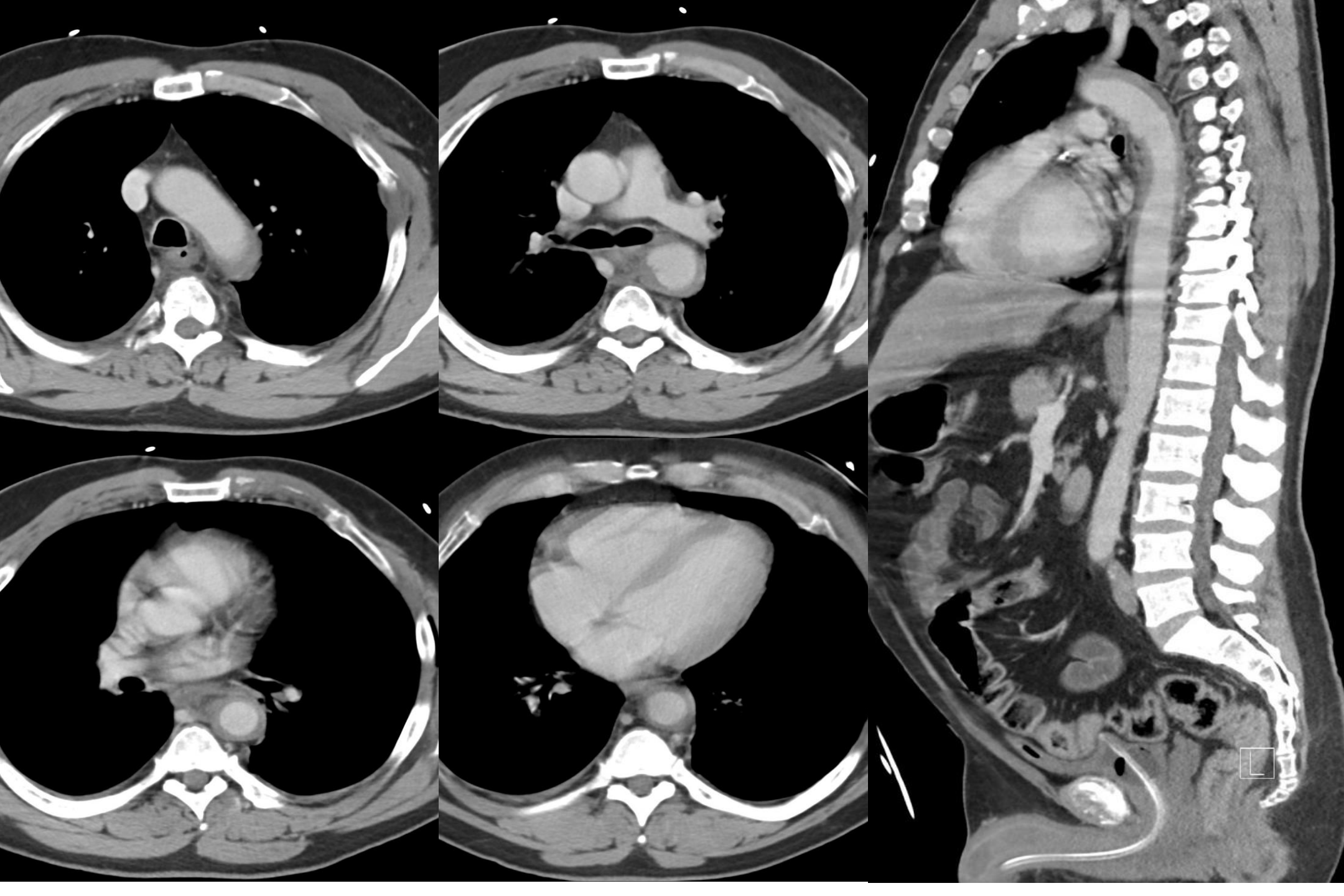
Murales Hämatom

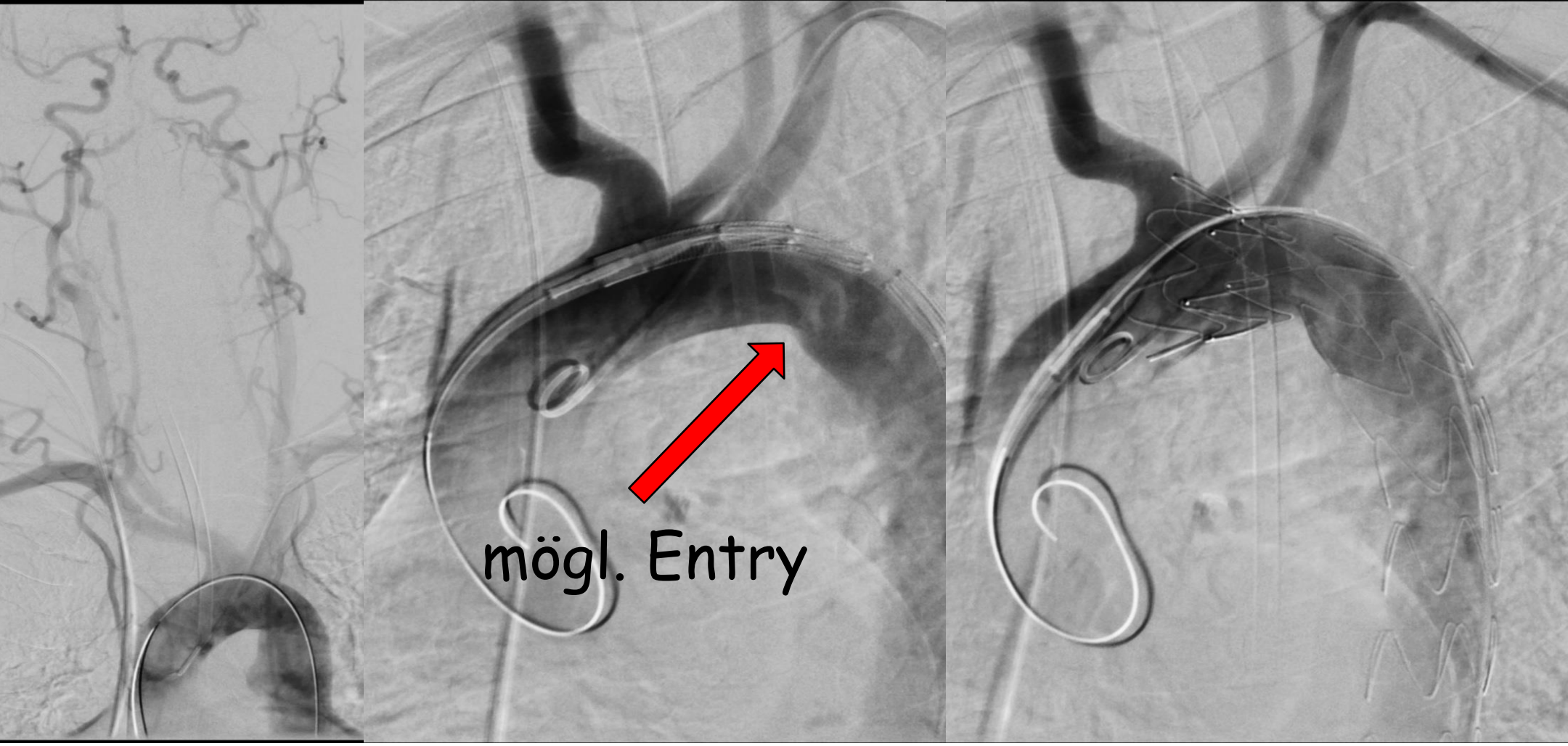
= Dissektion ohne erkennbares Entry

- Klinik wie Dissektion
  - wenn asympt. – Kontrolle
  - wenn sympt.-Therapie

Ein Beispiel:

50 J, VU, Spinalis anterior Syndrom





rapid pacing
Überstenten A. subclavia, Amplatzer Plug

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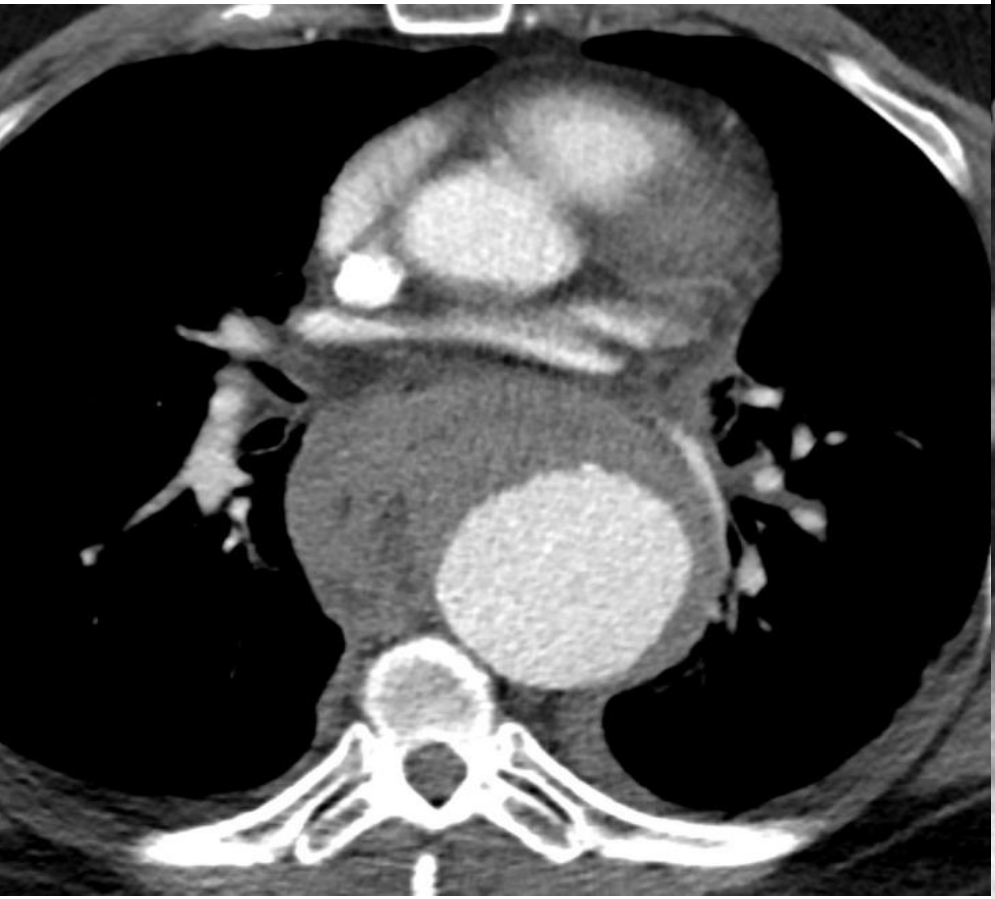
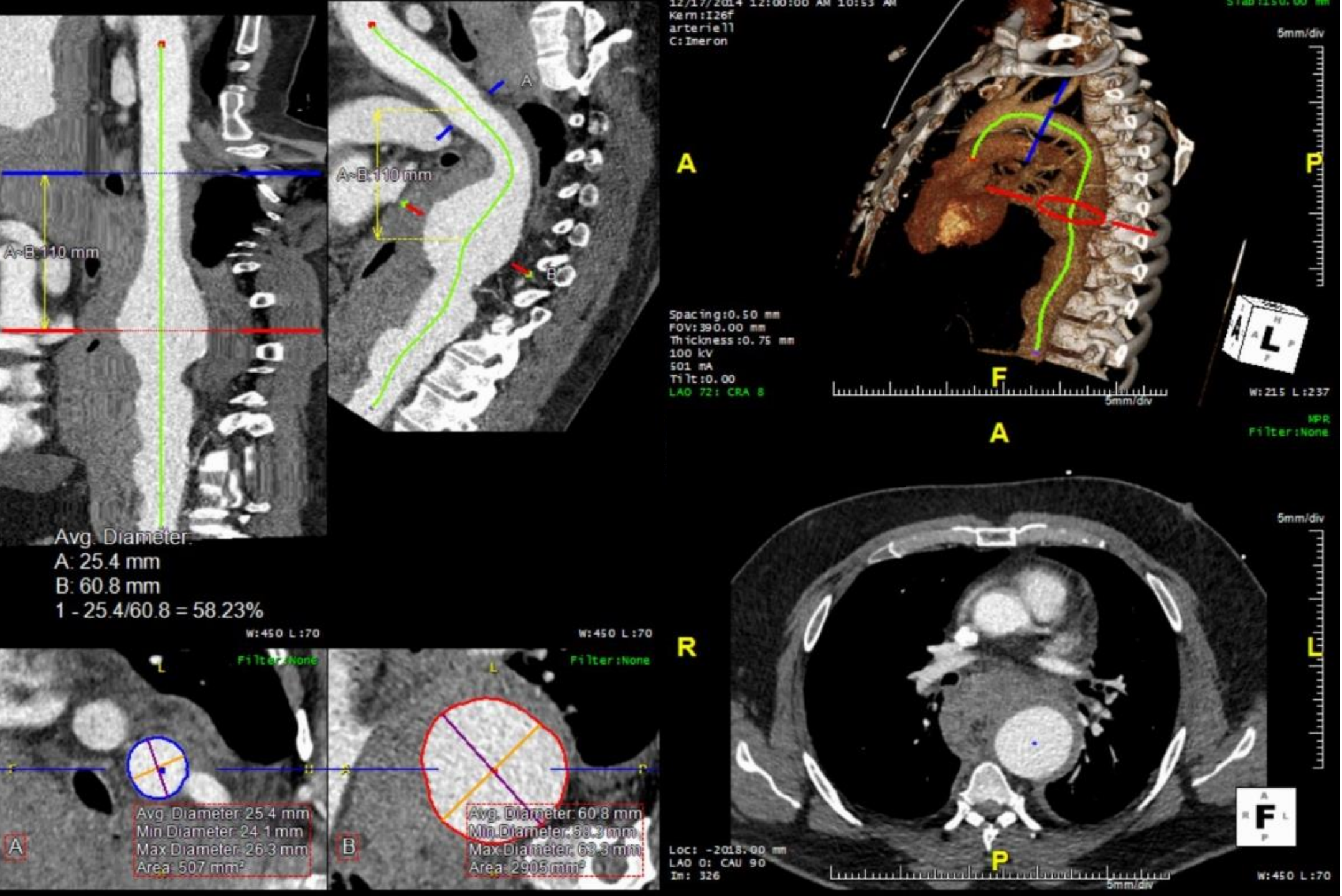
Kontrolle

Ein Beispiel einer gedeckten Ruptur

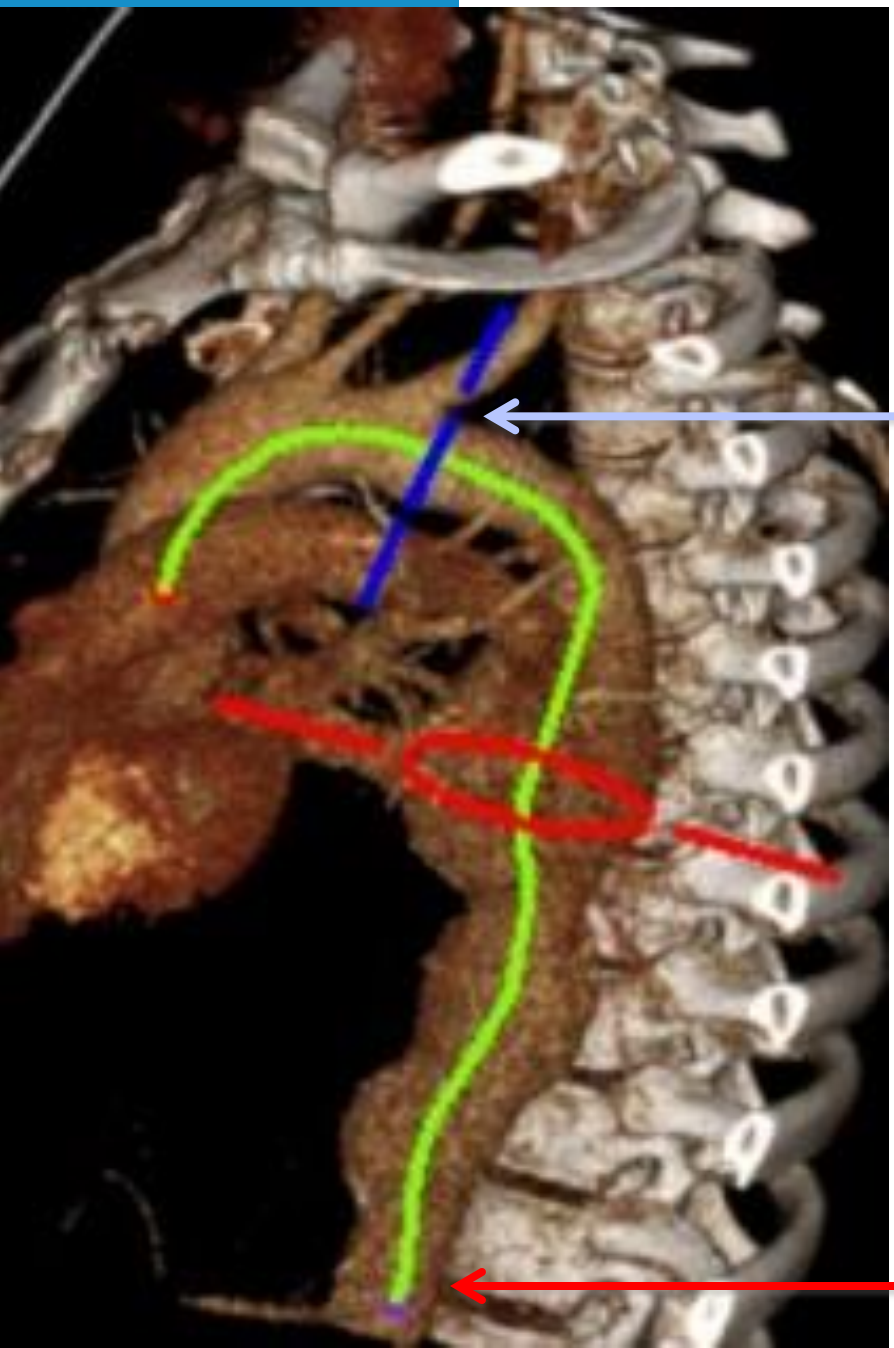
49 J m.
mult. Risikofaktoren
stechende Rückenschmerzen

Thorakale Aortenaneurysmen



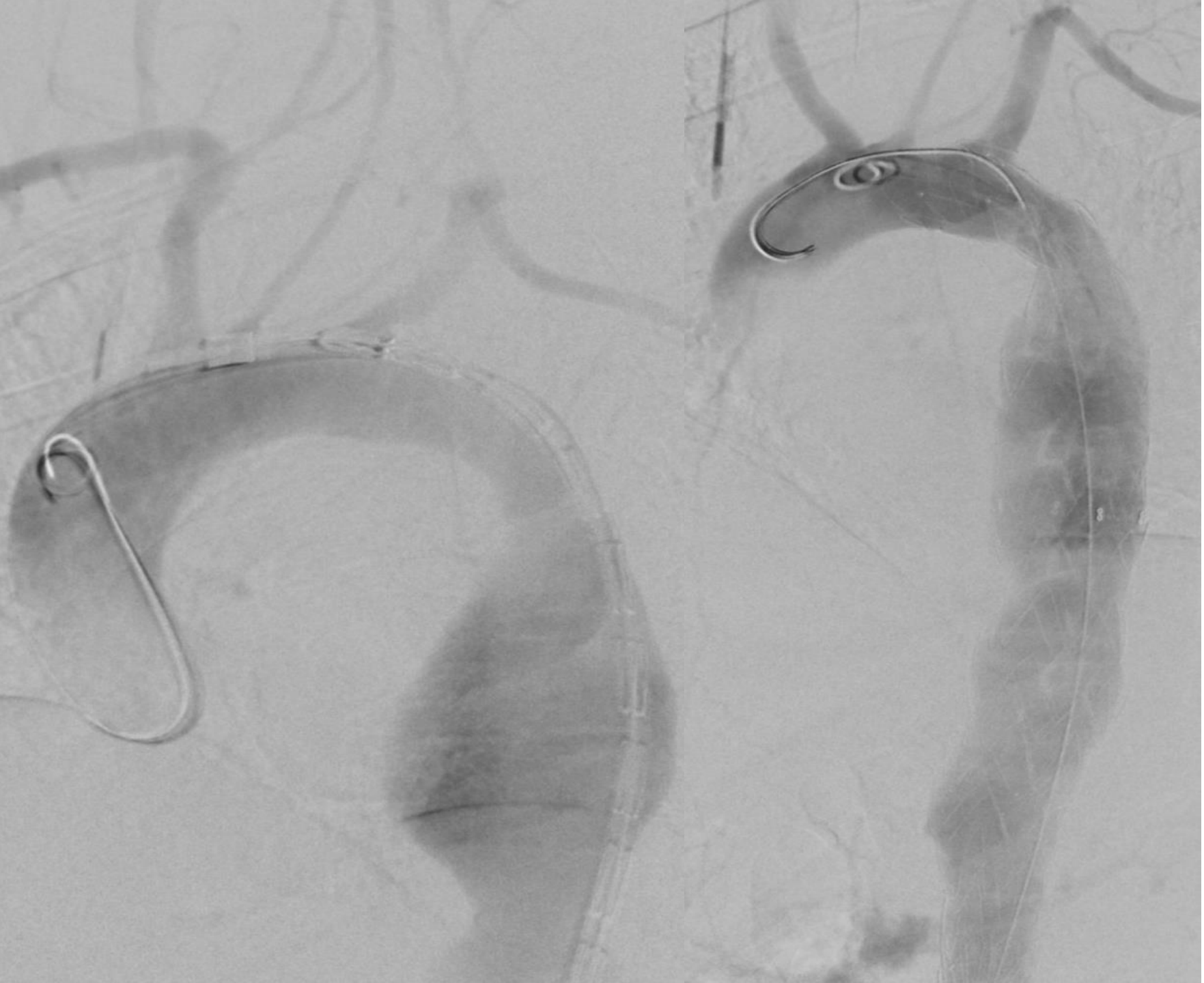

A-B:110 mm
A-B:110 mm
A
B
Avg. Diameter:
A: 25.4 mm
B: 60.8 mm
1 - 25.4/60.8 = 58.23%
W:450 L:70
Filter:None
Avg. Diameter: 25.4 mm
Min Diameter: 24.1 mm
Max Diameter: 26.3 mm
Area: 507 mm²
W:450 L:70
Filter:None
Avg. Diameter: 60.8 mm
Min Diameter: 58.3 mm
Max Diameter: 63.3 mm
Area: 2905 mm²
12/17/2014 12:00:00 AM 10:53 AM
Kern:I26f
arterie11
C:Imeron
Spacing:0.50 mm
FOV:390.00 mm
Thickness:0.75 mm
100 kV
501 mA
Tilt:0.00
LAO 72: CRA 8
5mm/div
W:215 L:237
MPR
Filter:None
Loc: -2018.00 mm
LAO 0: CAU 90
Im: 326
W:450 L:70

Thorakale Aortenaneurysmen

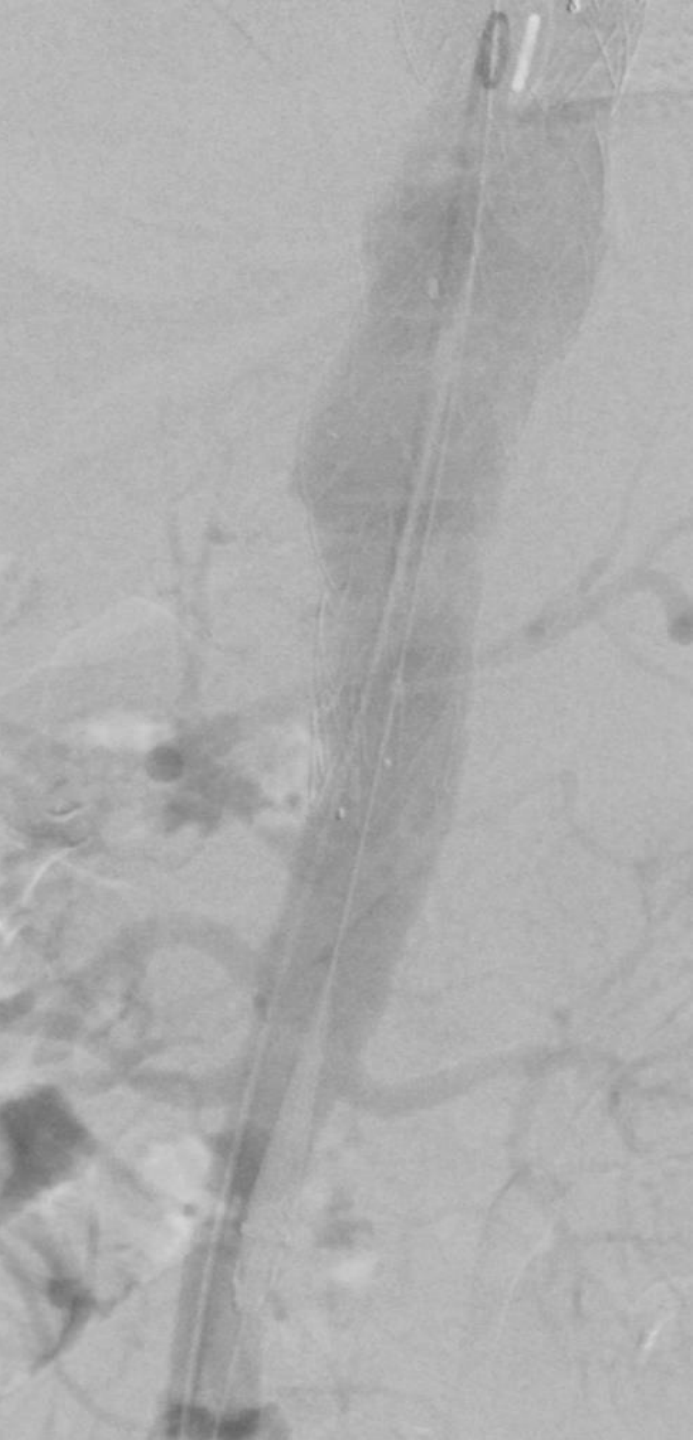


prox. Landezone

dist. Landezone



KLINIKUM Passau

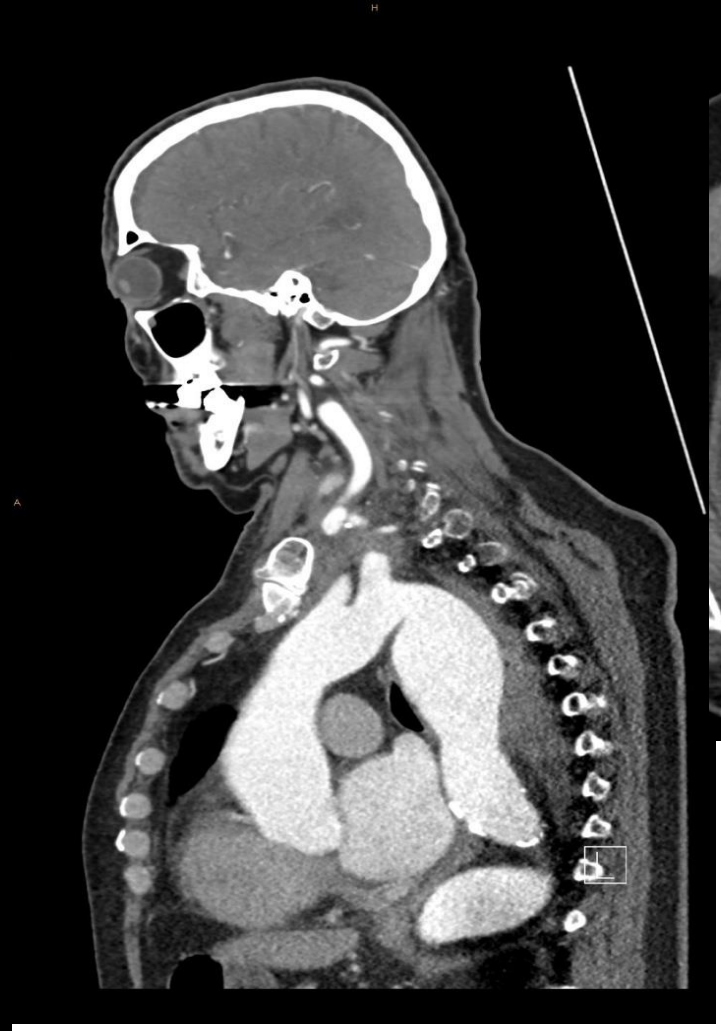


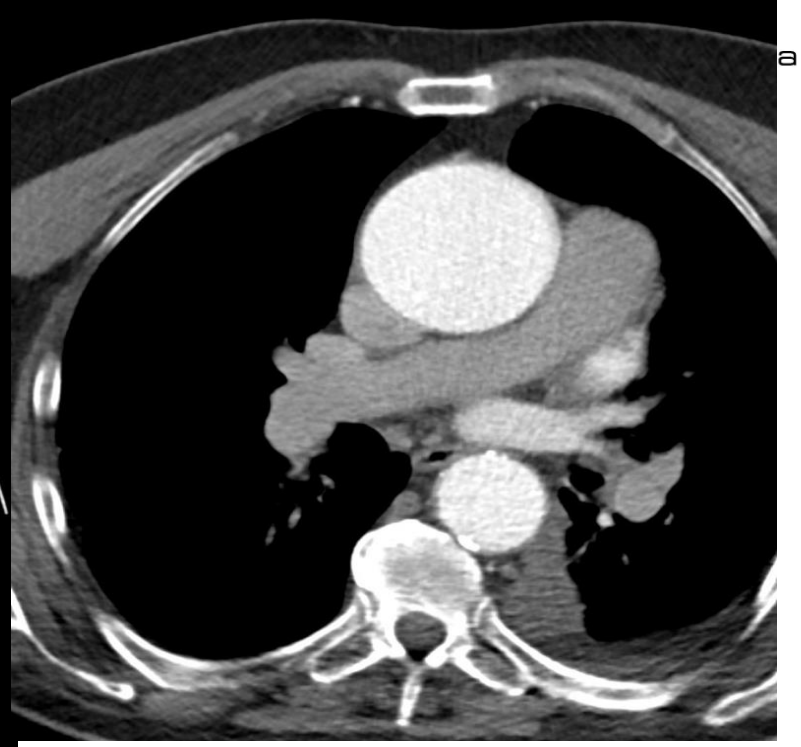
Überlappen
2 Grafts
bis TRC

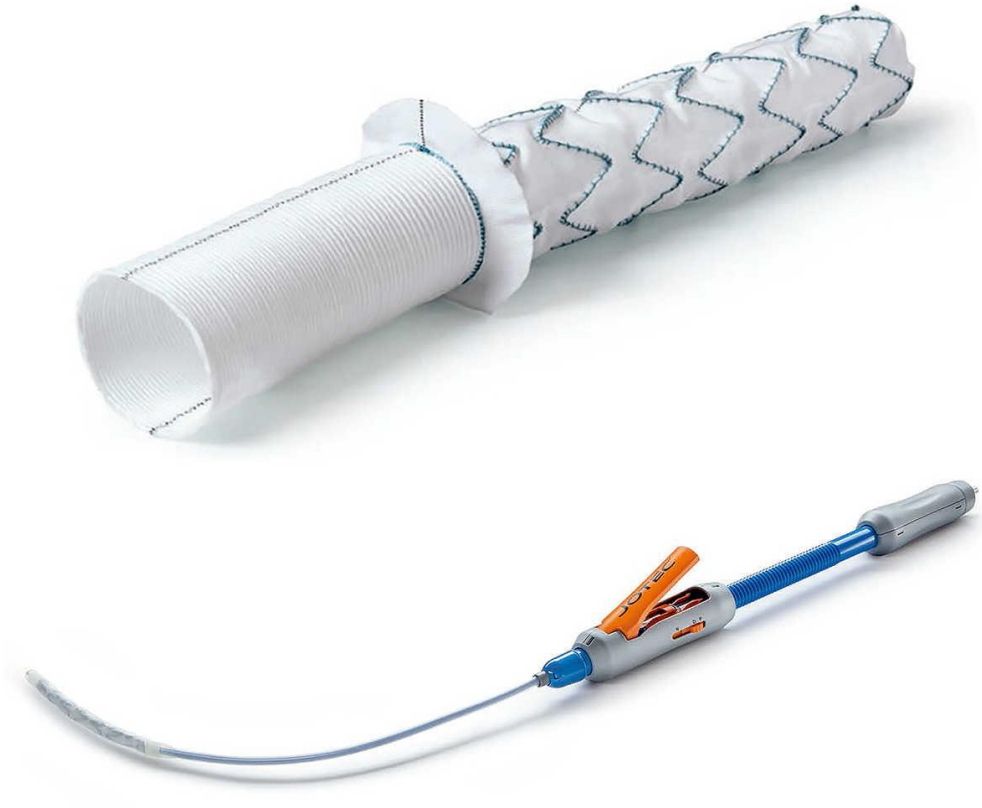
Kontrolle
2 Jahre

Ein Beispiel eines TAA
A.ascendens bis Zwerchfell

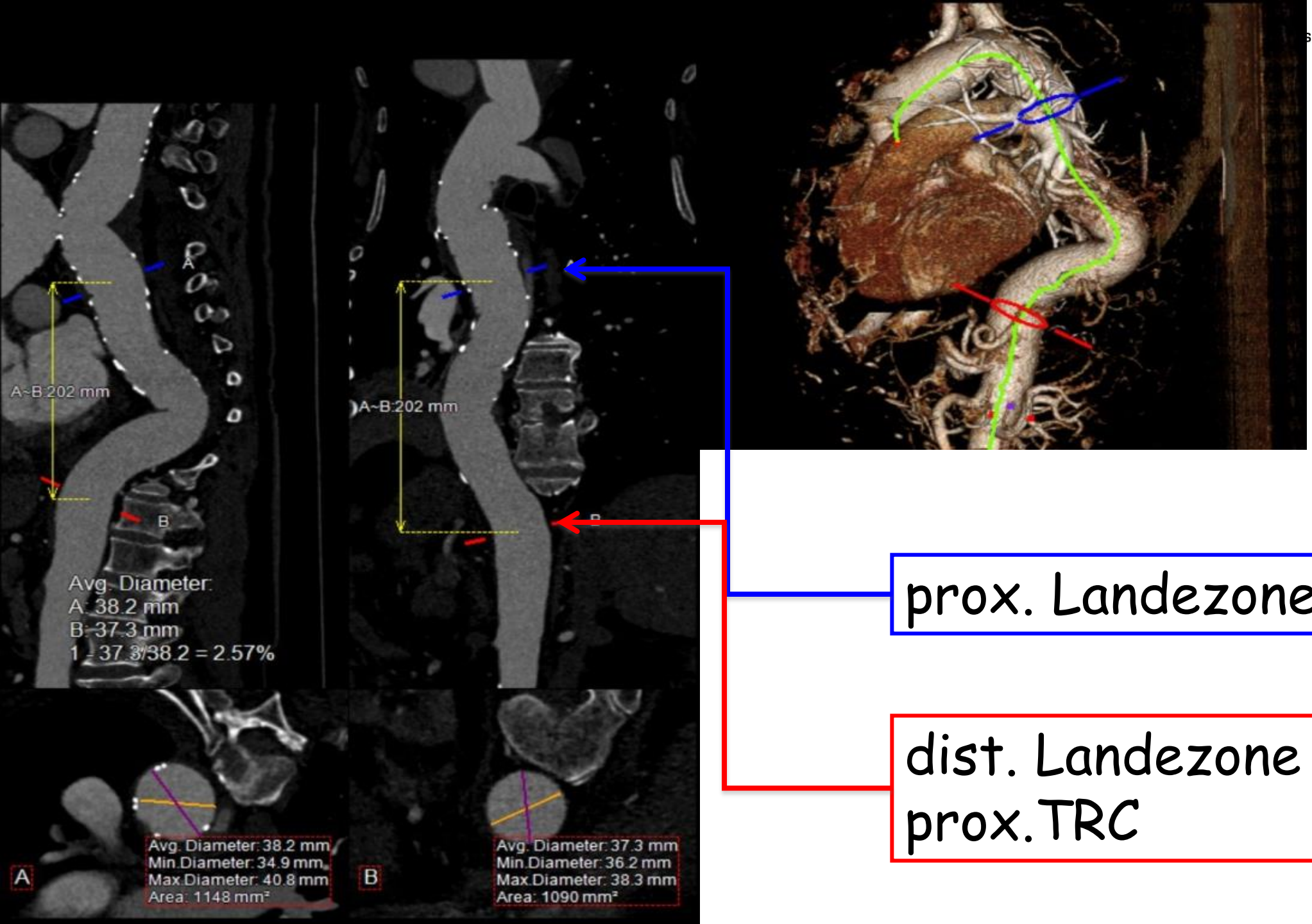
F.J. m 77J
TAA, e-Vita open & TEVAR

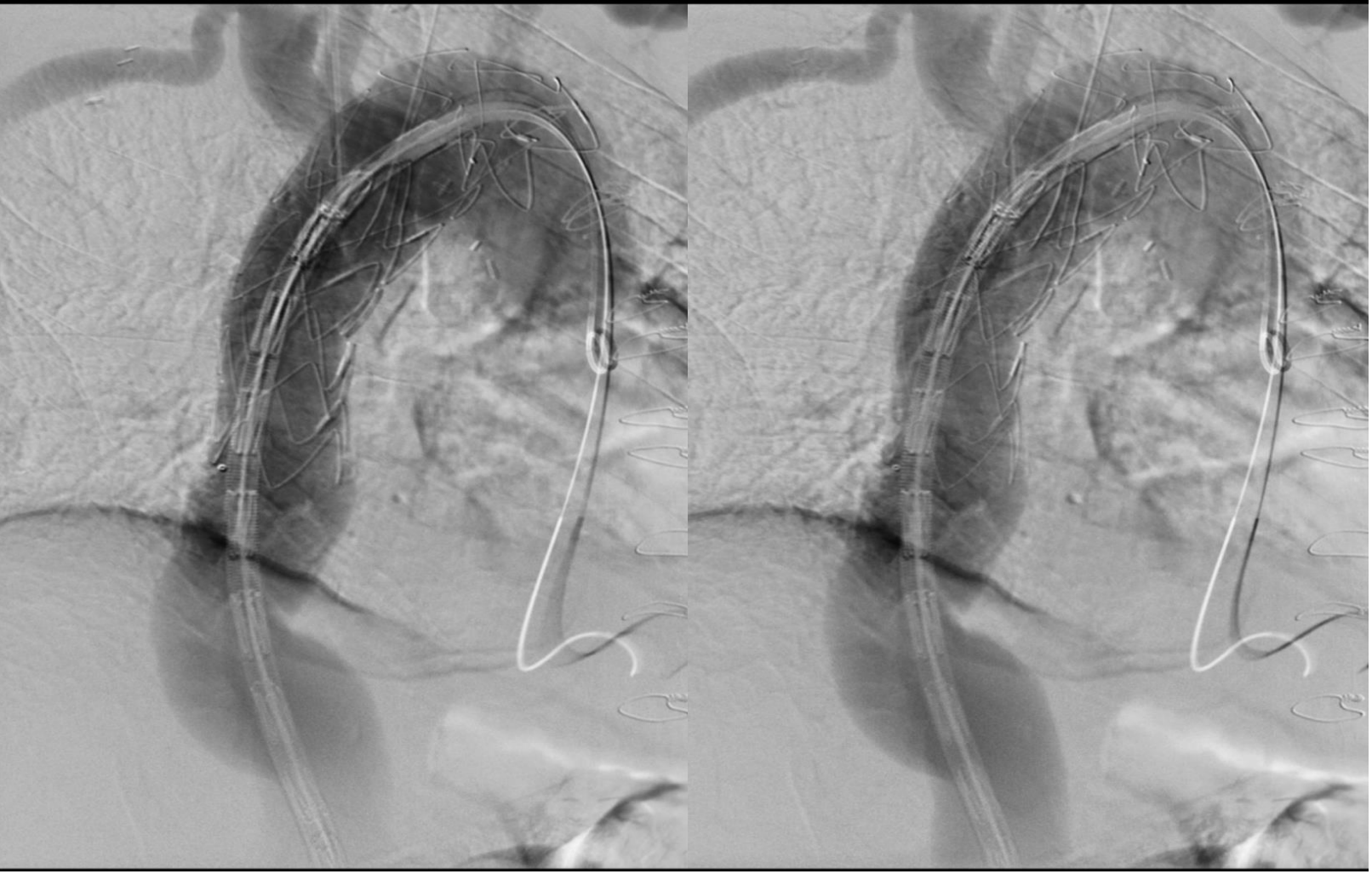






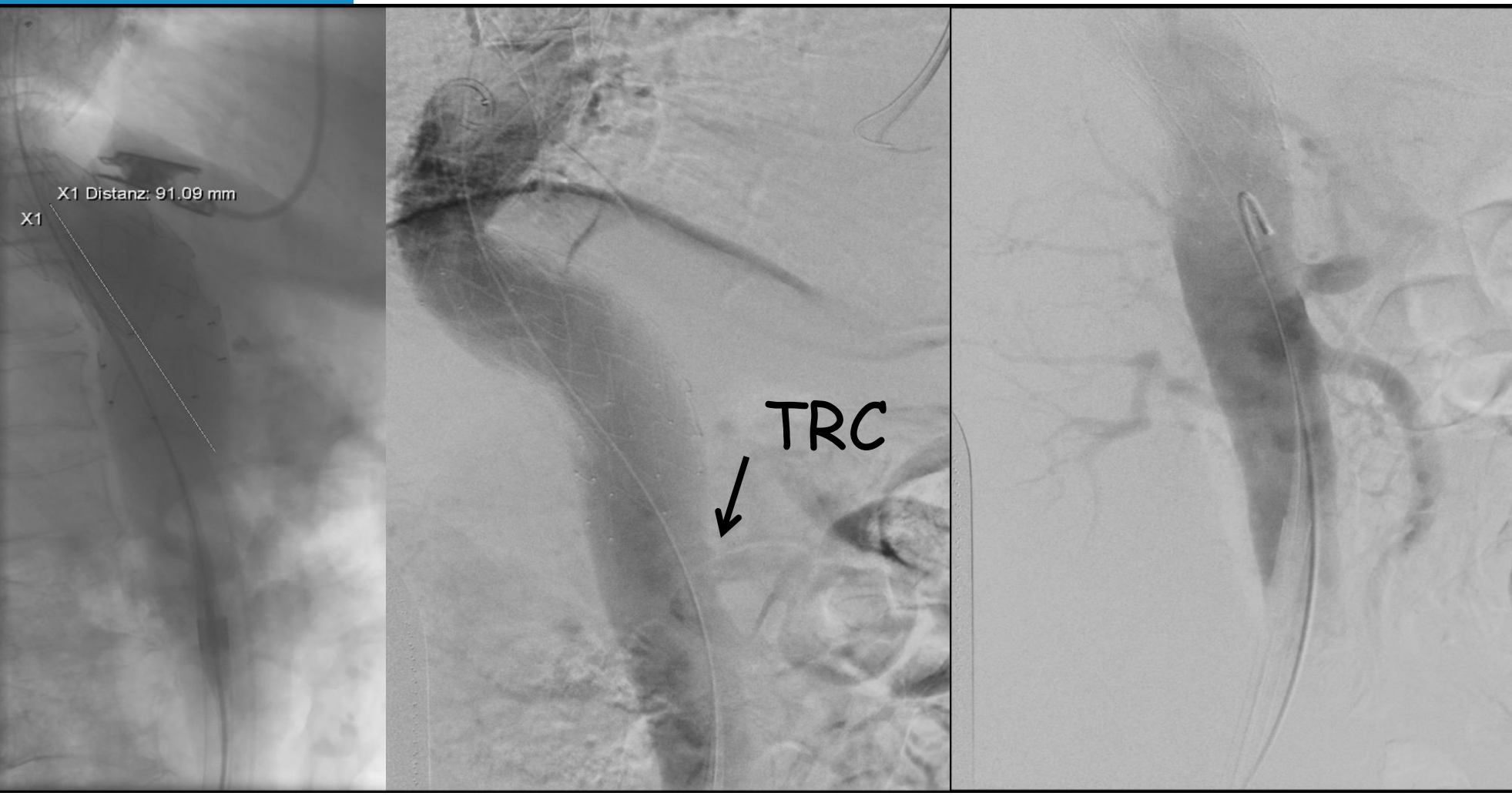
Ascendensersatz durch E-vita open post LSA Transposition


A~B 202 mm
A
B
Avg. Diameter:
A: 38.2 mm
B: 37.3 mm
1 - 37.3/38.2 = 2.57%
A~B 202 mm
A
Avg. Diameter: 38.2 mm
Min.Diameter: 34.9 mm
Max.Diameter: 40.8 mm
Area: 1148 mm²
B
Avg. Diameter: 37.3 mm
Min.Diameter: 36.2 mm
Max.Diameter: 38.3 mm
Area: 1090 mm²
prox. Landezone
dist. Landezone
prox.TRC



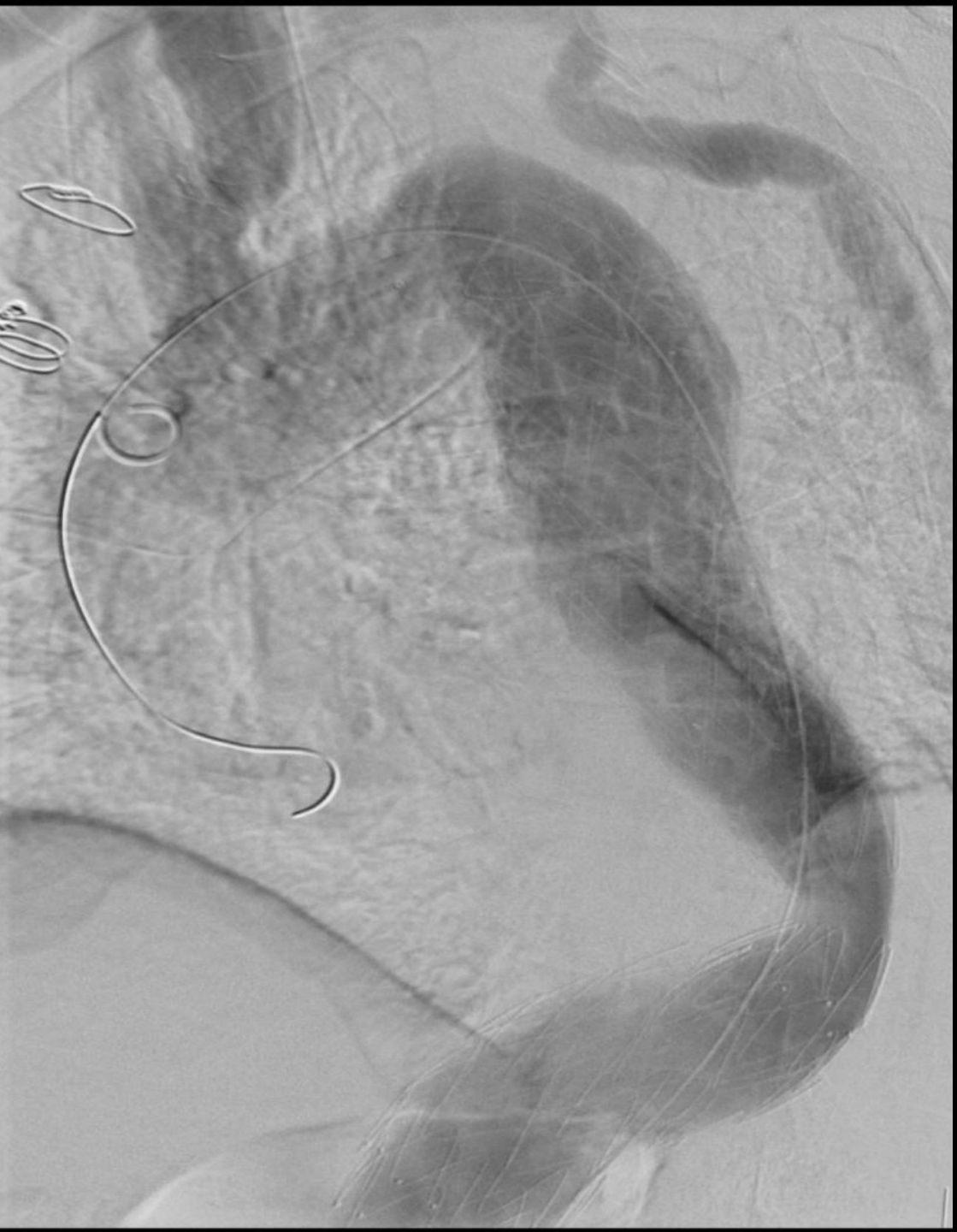
ITN
Liquordrainage
bds. femoral Nahtsysteme

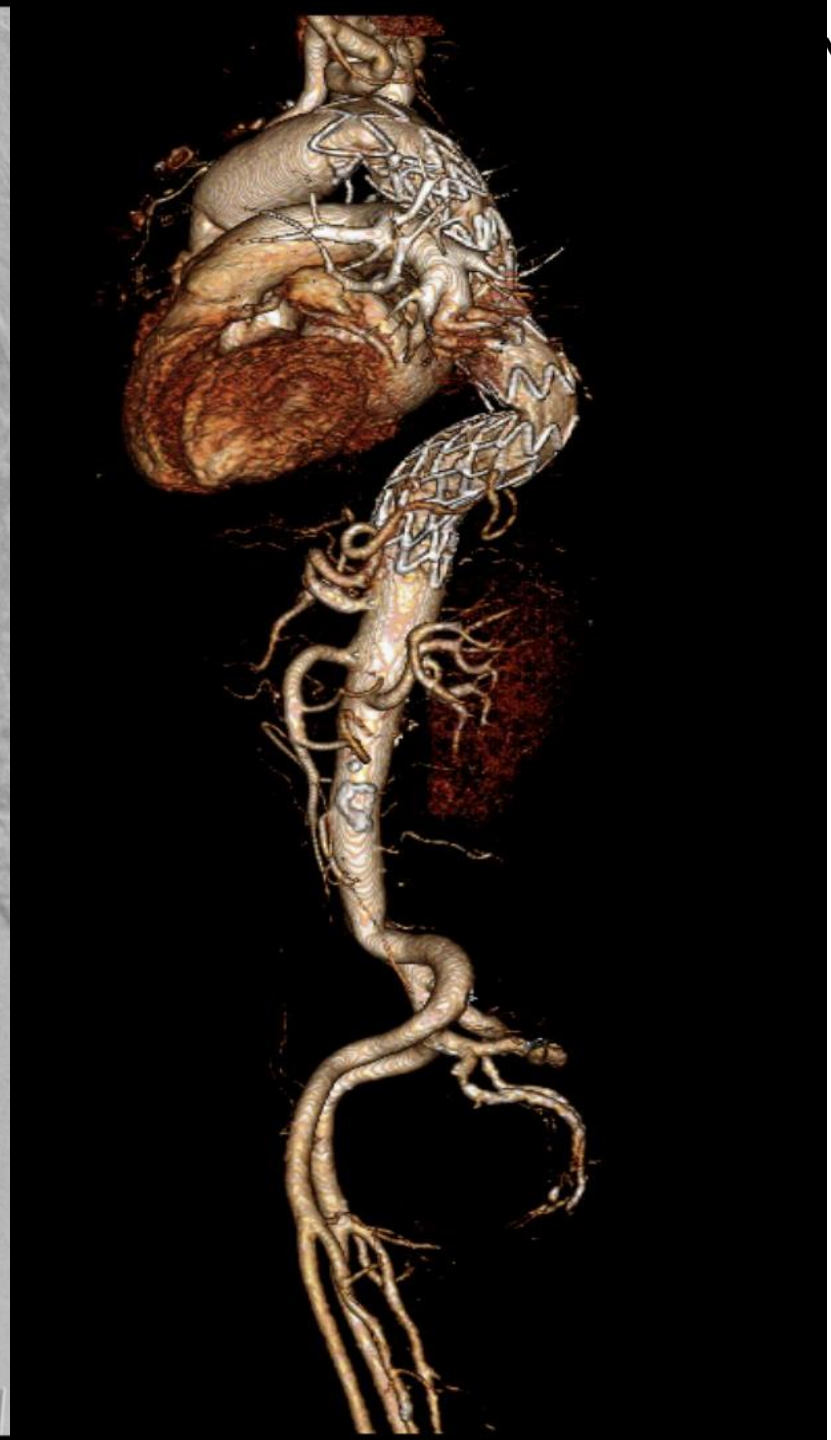
1. Graft



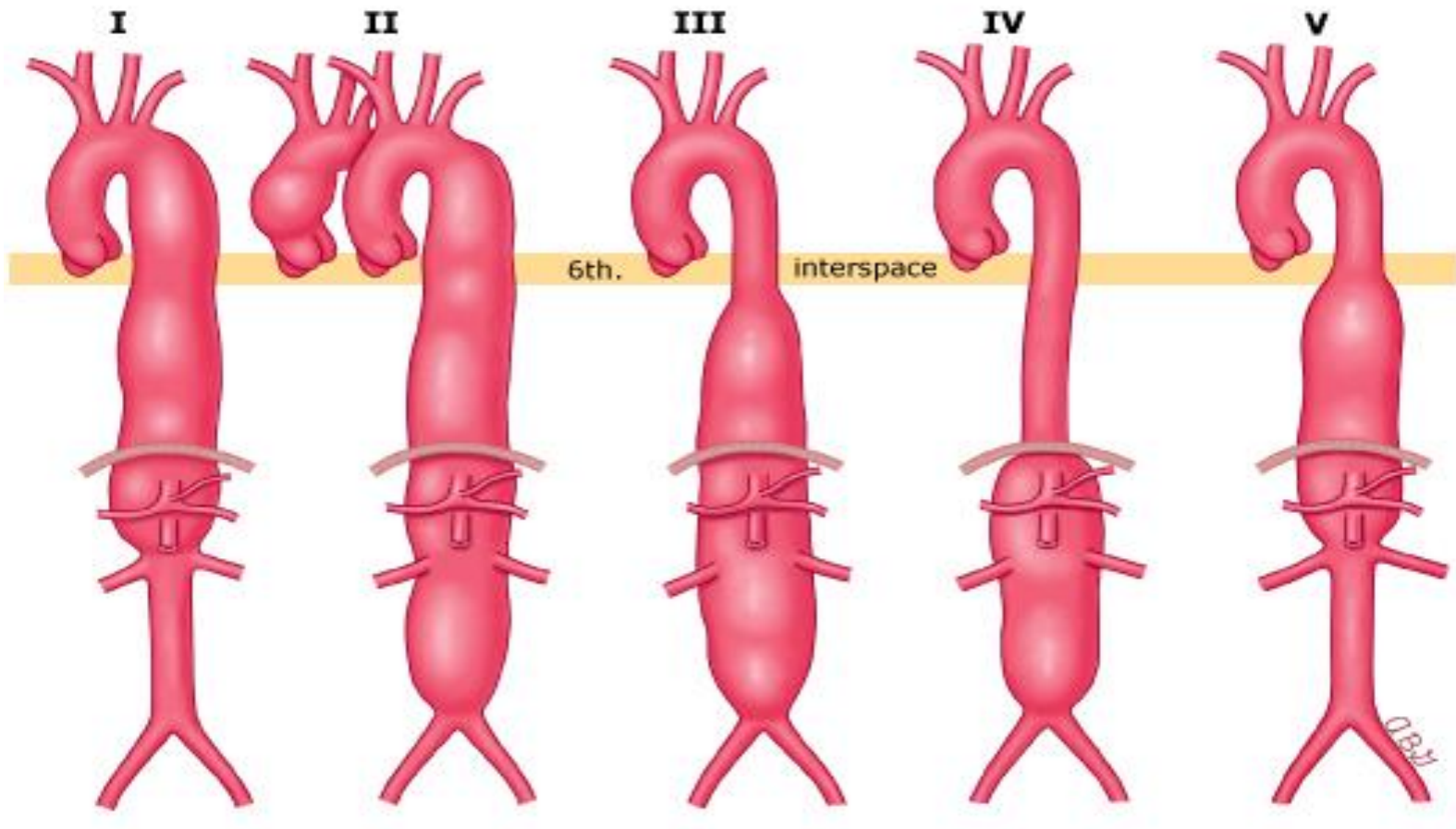
ITN
Liquordrainage
bds. femoral Nahtsysteme

überlappend 2. Graft





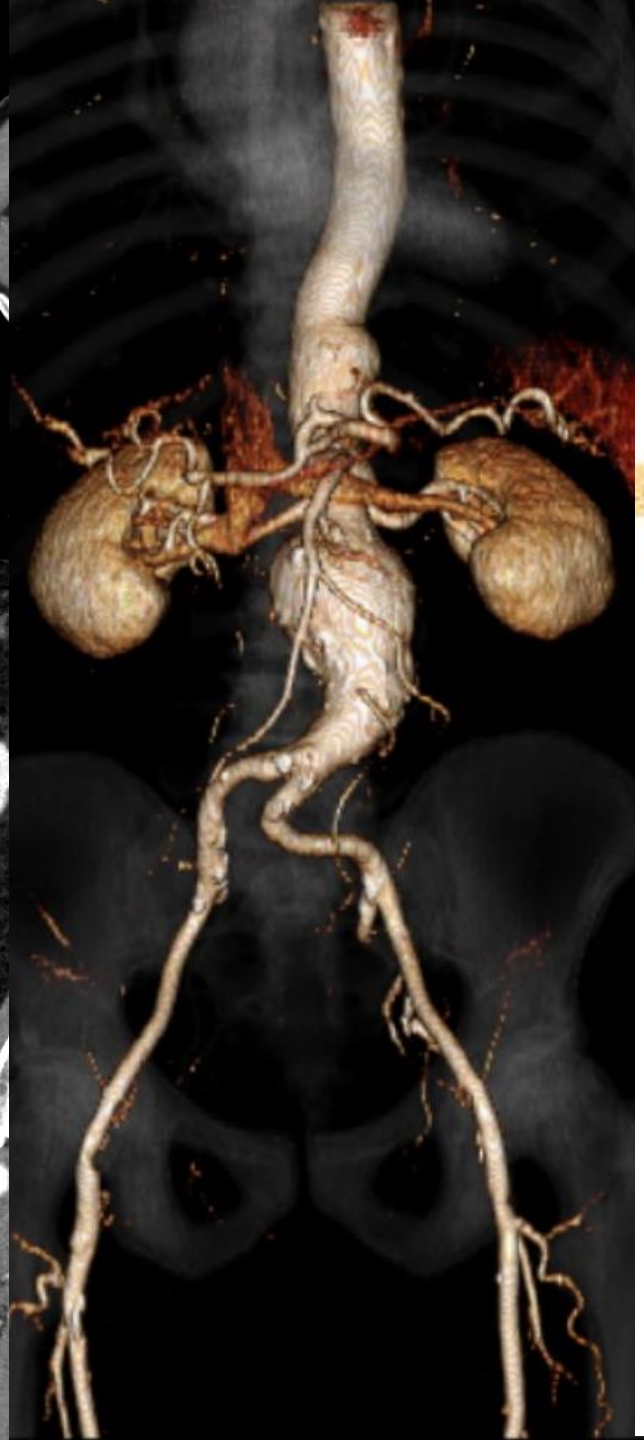
Thorakoabdominelle Aneurysmata

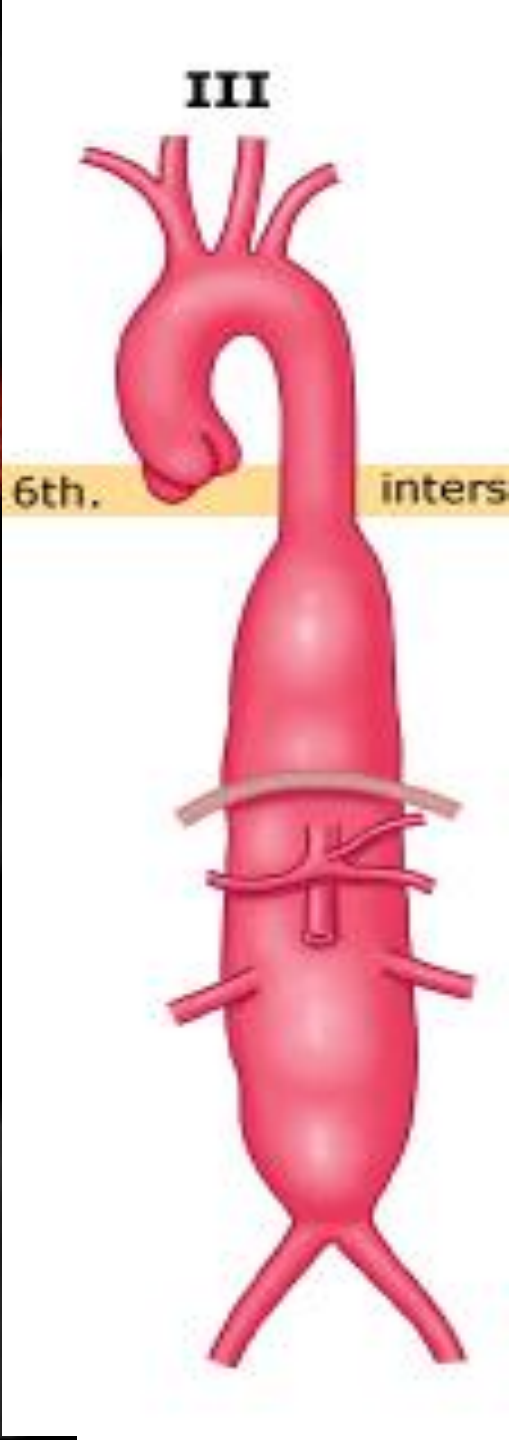


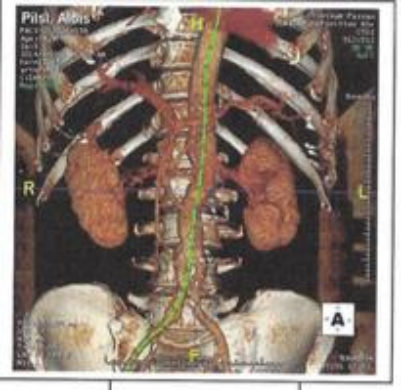
Crawford Klassifikation

Ein Beispiel eines TAAA

62 J m asympt.



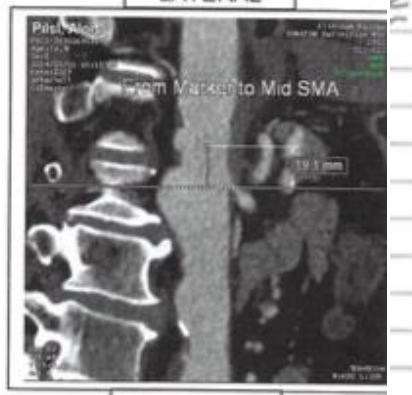

III
6th.
inters



AP

LATERAL

COELIAC



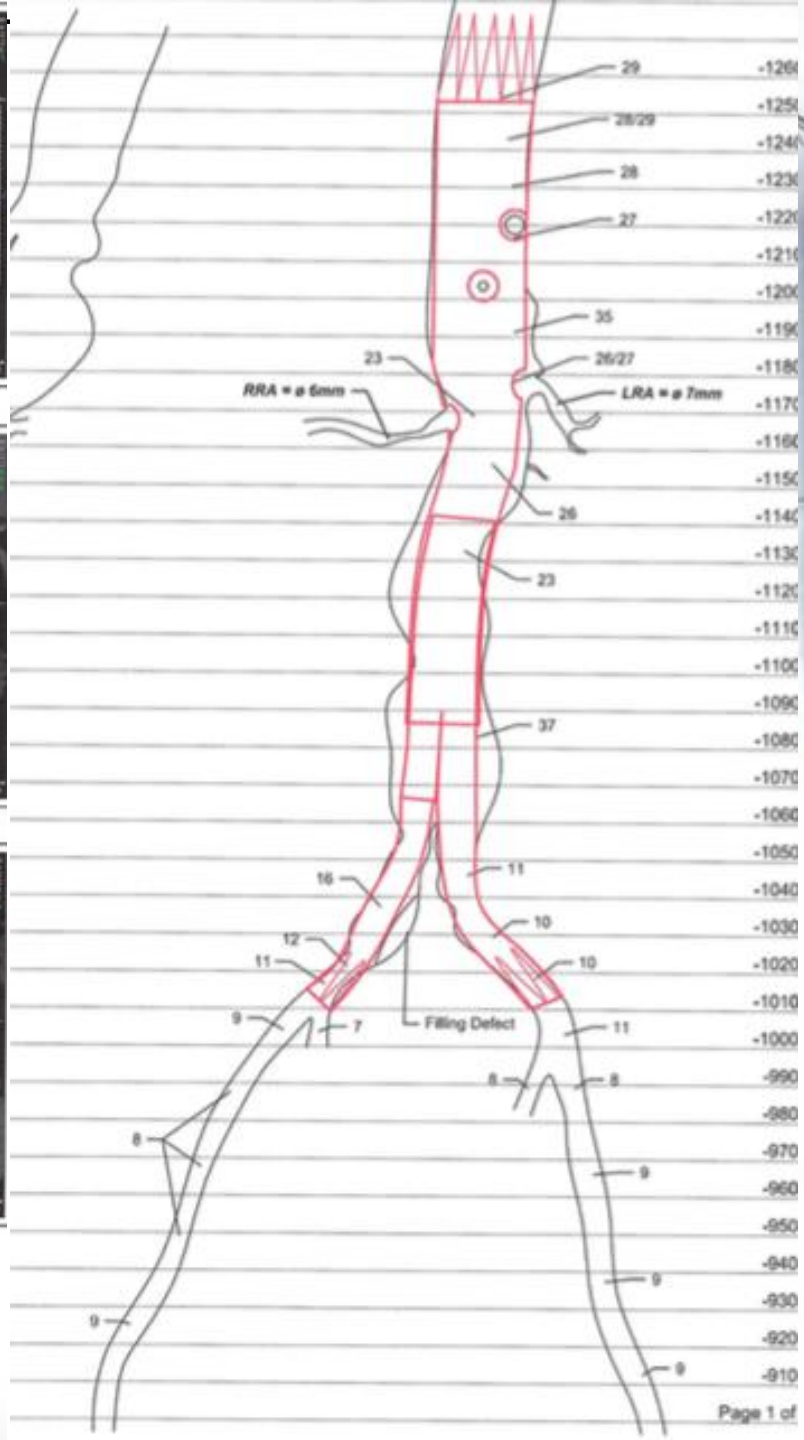
SMA

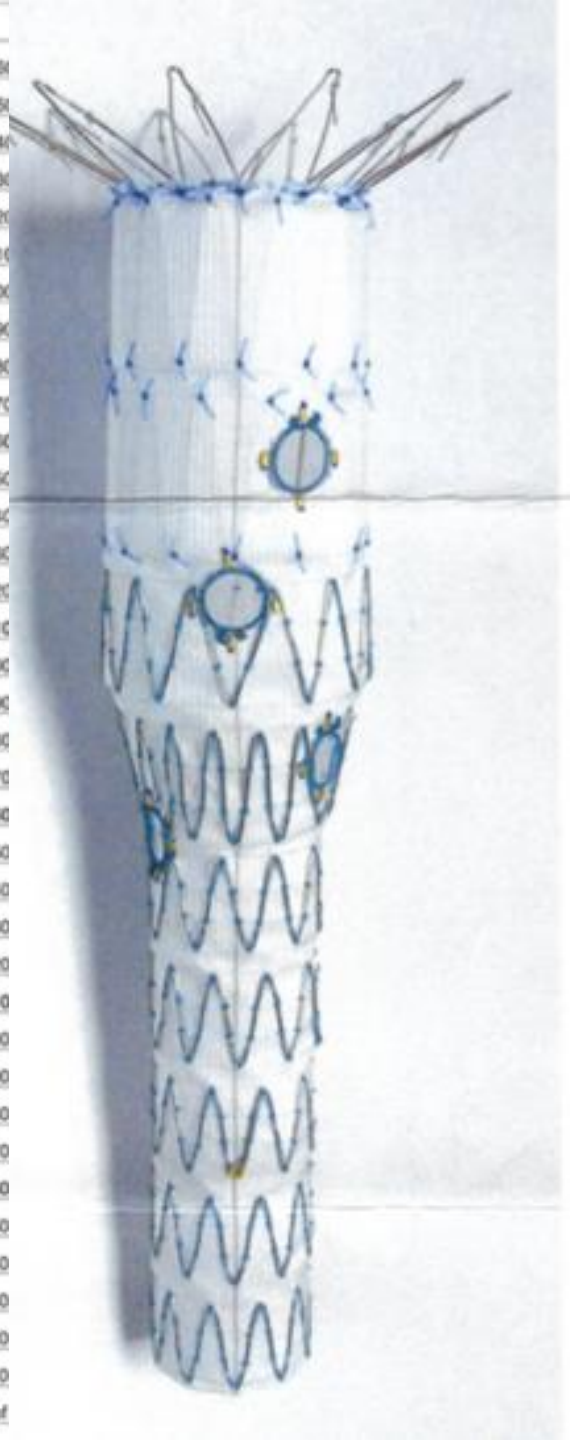
RT RENAL

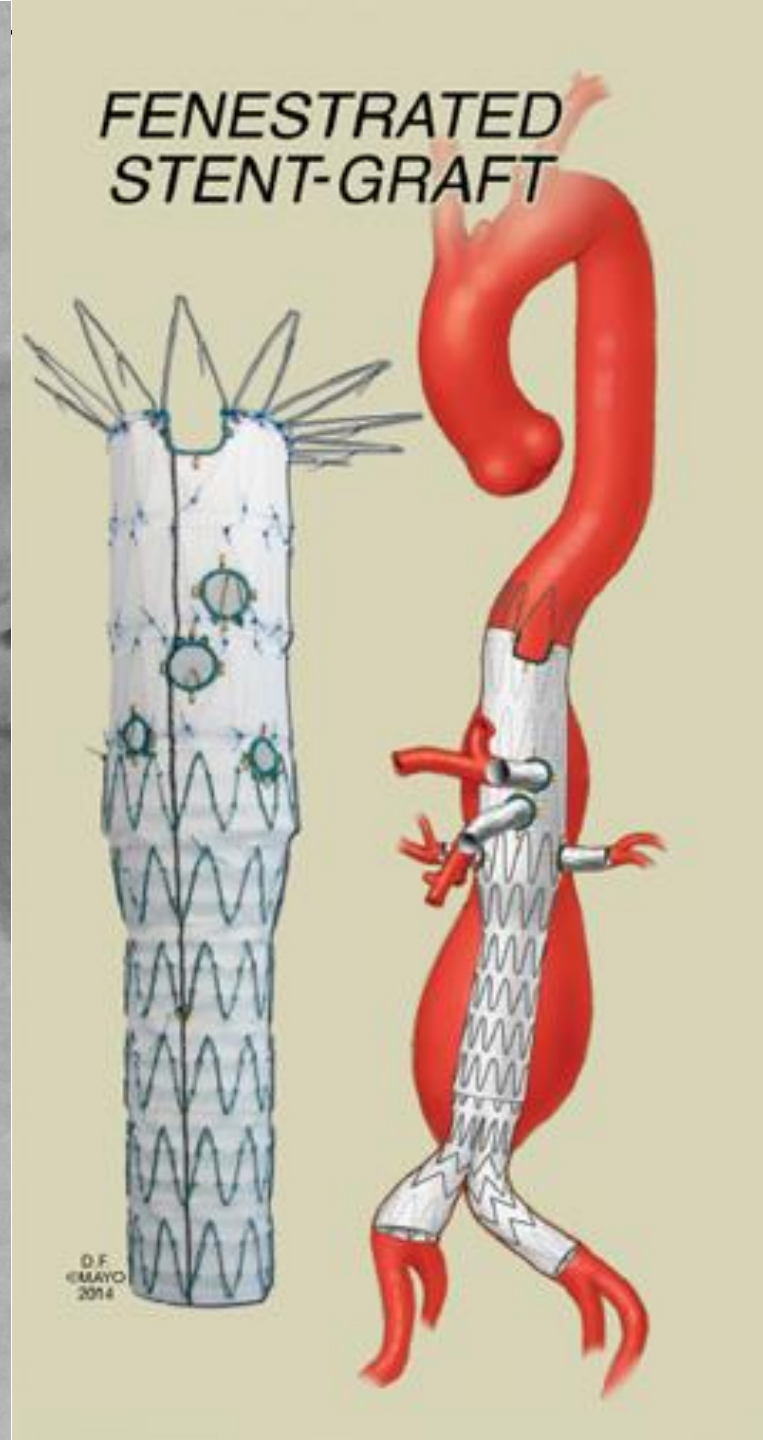
LT RENAL

Reference Point Zero = Mid Coeliac Trunk

Distance to mid SMA = 19mm
Distance to middle Rt. Renal artery = 56mm
Distance to middle Lt. Renal artery = 43mm






FENESTRATED
STENT-GRAFT
D.F.
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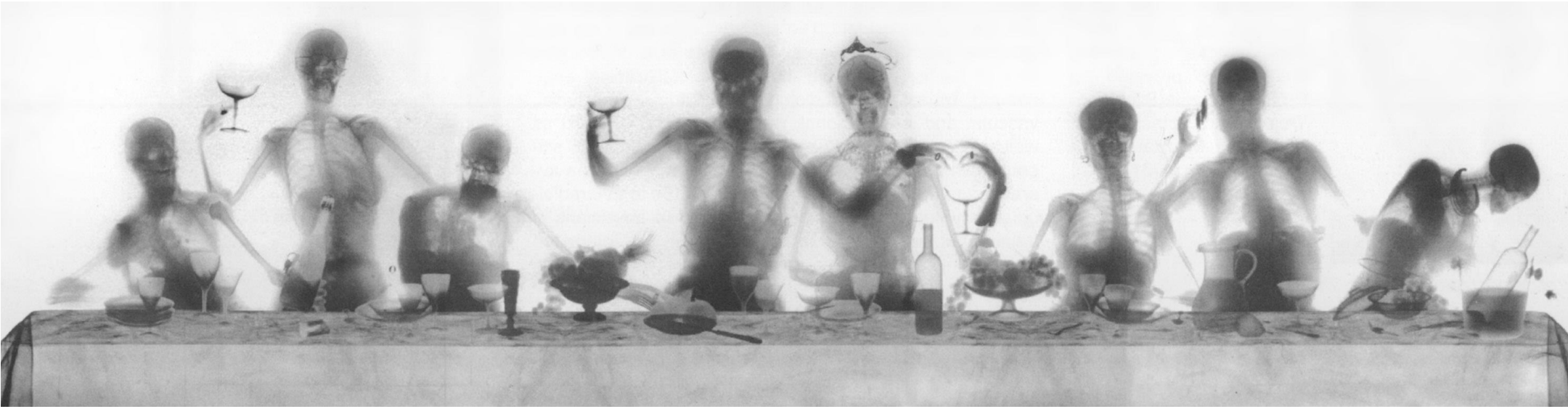
2014

Zum Mitnehmen:

- Aktuelle CT Angiographie ist obligat
- Workstation mit Mittellinienrekonstruktionen (CLR)
- Kenntnisse der rel. Aortenpathologien
- Potentielle Landezonen identifizieren
- Ausmessen der Prothesen an WS
- Kontrolle immer durch CT Angiographie

Thorakale Aortenaneurysmen



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