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Frozen Elephant Trunk in Chronic Aortic Dissection and Endovascular Treatment of the Downstream Aorta

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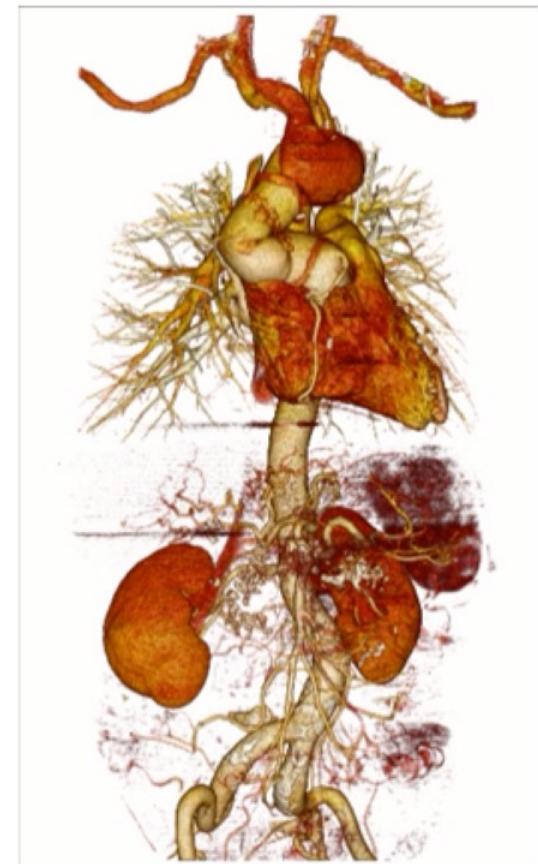
Patient History

Diagnosis & Symptoms

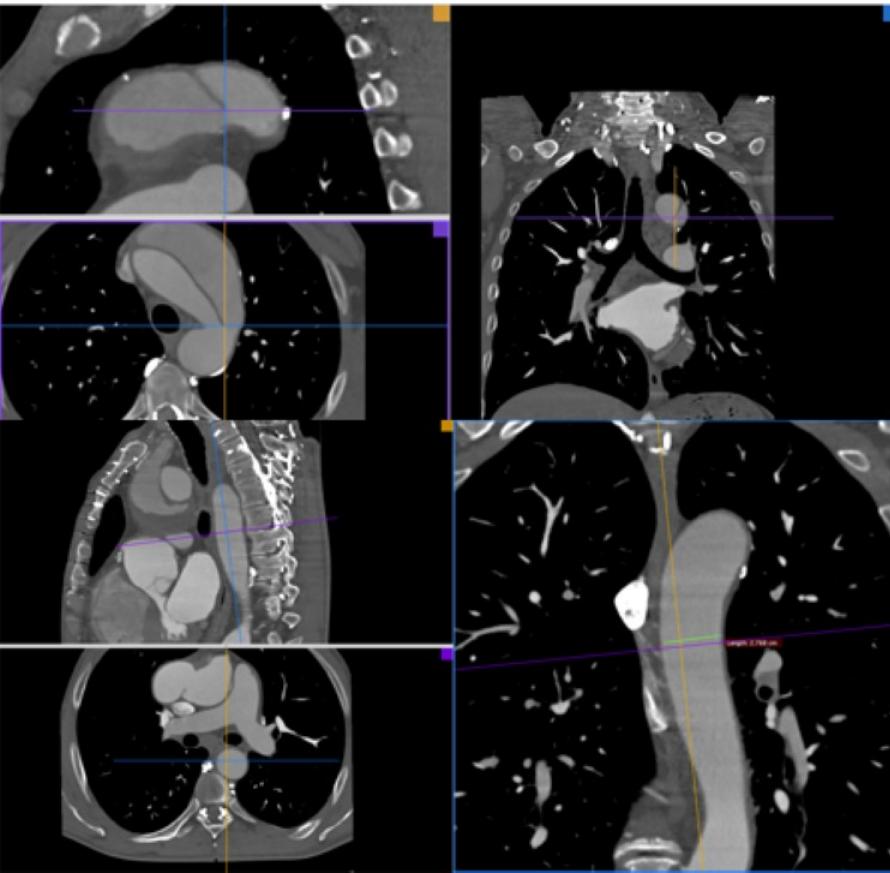
- 52 y/o male patient, 70 kg, 176 cm
- chronic arch dissection with fast growing arch
- thoracic pain
- root aneurysm with severe AR

History

- s/p isolated proximal repair for acute type A dissection 10/2016 elsewhere
- hypertension
- nicotine and history of i.v. drug abuse



Preoperative Imaging



Preoperative Imaging



Surgical Strategy

- mech. Bentall procedure (ONX 25 mm)
- Zone 2 FET (EVITA 30 mm)
- LSA Bypass



Operative Video



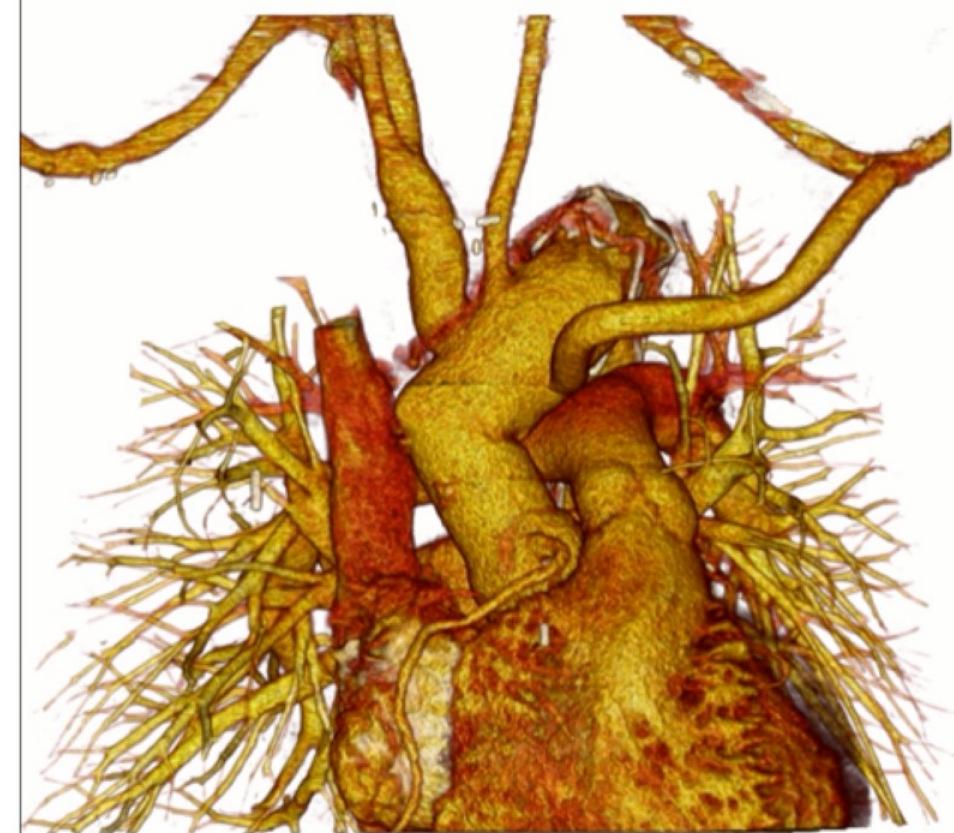
Operative Data & Result

Operative data

- CPB time 291 min
- X-clamp time 203 min
- DHCA @ 24°C
 - distal ischemia 31 min
 - cerebral perfusion 48 min

Postoperative course

- extubated after 12 h
- ICU for 3 days
- discharged home 11th POD



Discharge Video



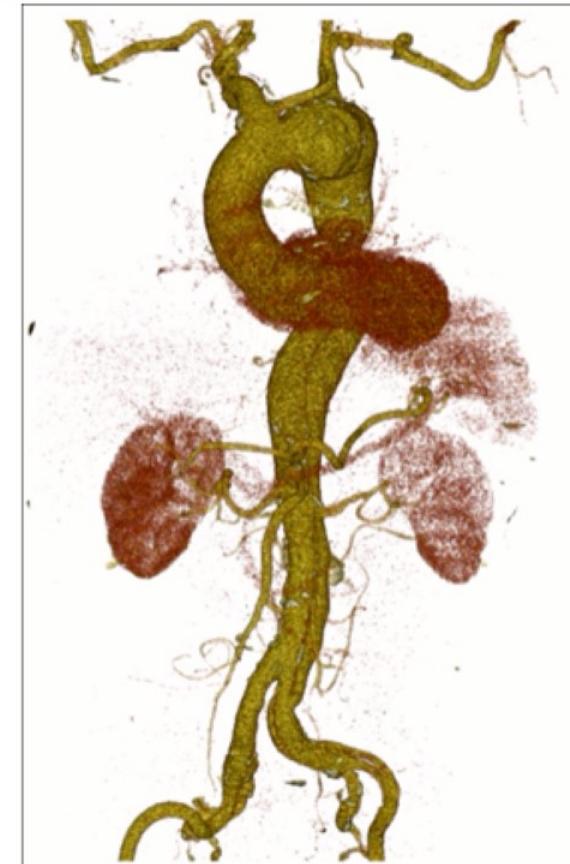
Patient History

Diagnosis & Symptoms

- 66 y/o male, 88 kg, 187 cm
- Symptomatic fast growing aortic arch aneurysm

History

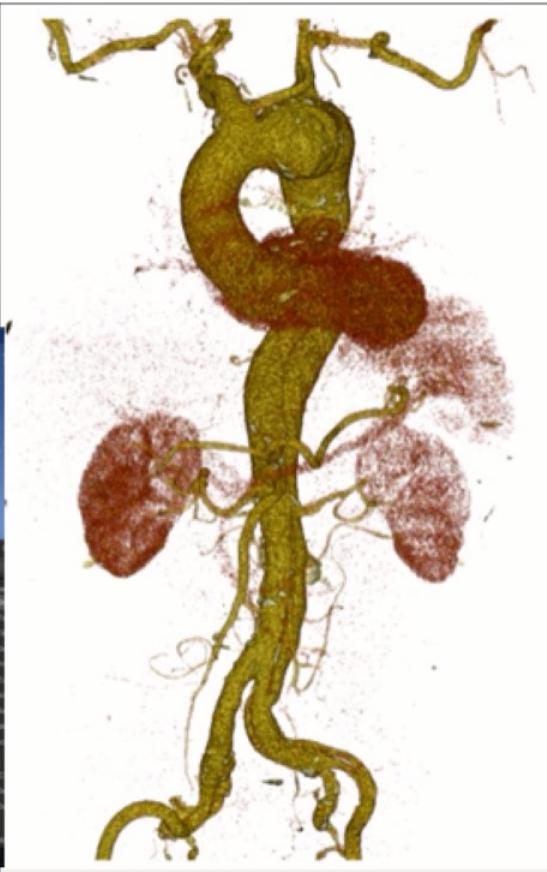
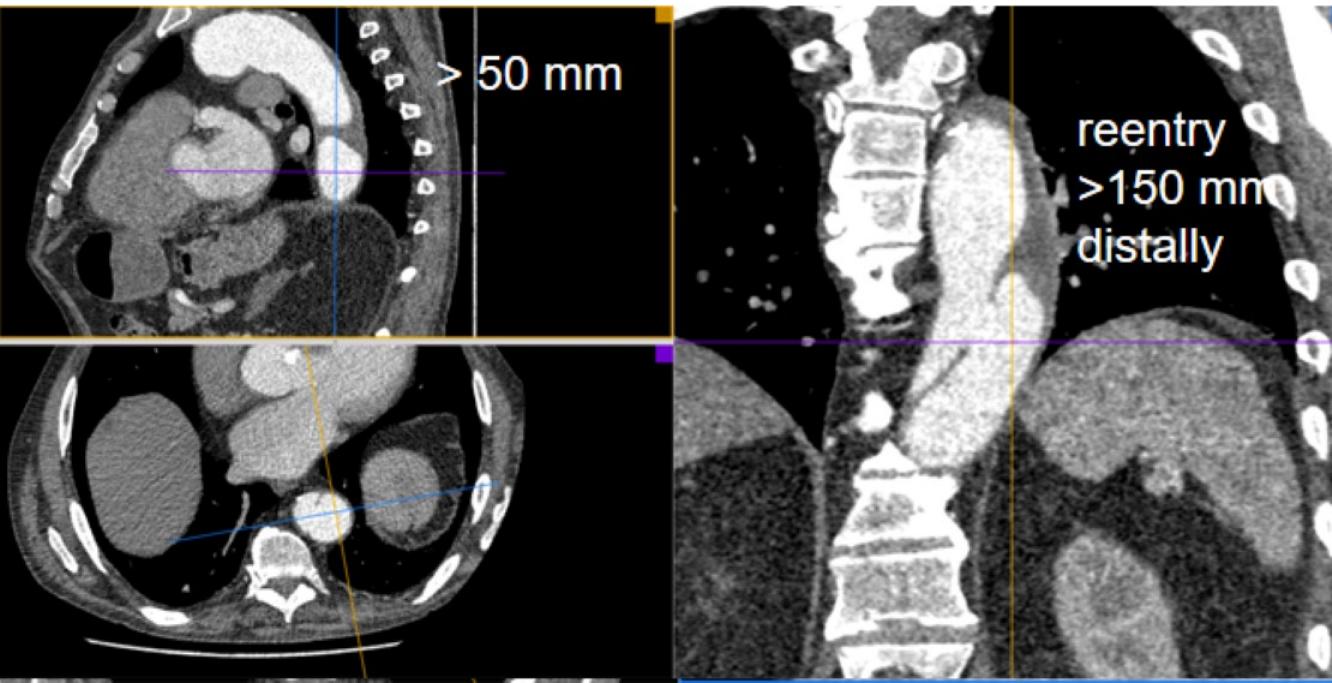
- chronic type B dissection
- s/p apoplex 2009
- intermittend tachyarrhythmia
- hypertension, hyperlipidemia



Surgical Strategy

surgical strategy

- Two-staged approach: Z2 FET + TEVAR



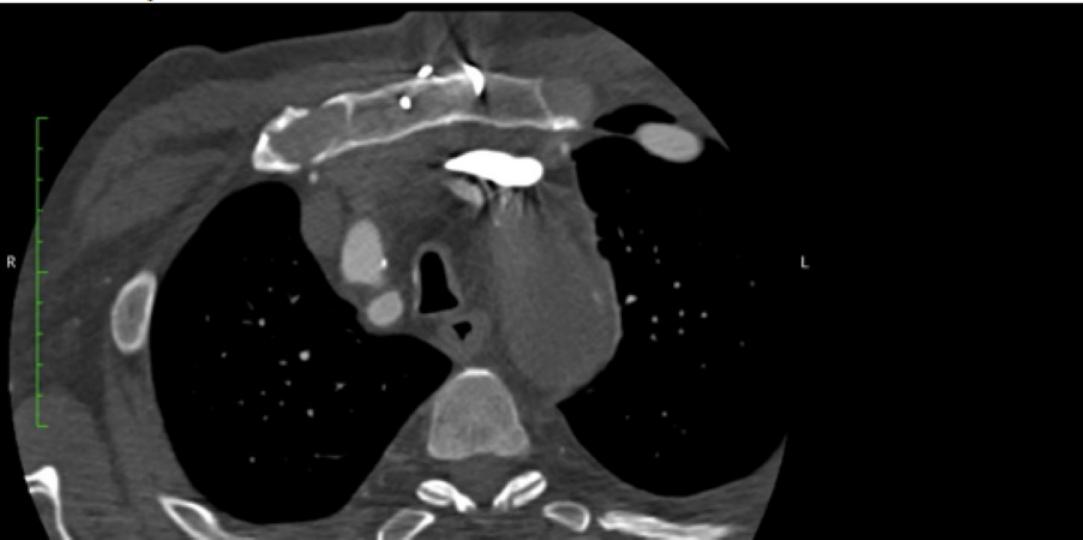
1st stage Z2 FET

Operative data (33 mm EVITA):

- CPB time 220 min
- X-clamp time 95 min
- DHCA @ 24°C
 - distal ischemia 20 min
 - cerebral perfusion 37 min

Postoperative course

- extubated after 18 h
- ICU for 4 days
- discharged 14th POD



2nd stage TEVAR after 3 month



2nd stage TEVAR:

- Relay NBS 36 x 154 x 36
- Relay NBS 36 x 154 x 32

Postoperative course

- extubated in OR
- discharged 5th POD



Patient History

Diagnosis & Symptoms

- 41 y/o female, 81 kg, 191 cm
- Symptomatic descending aneurysm with gothic arch

History

- Marfan syndrome
- s/p sternal plasty for pectus excavatum (1990)
- s/p mech. Bentall procedure for aneurysm and VSD repair (2000)
- reduced LVEF

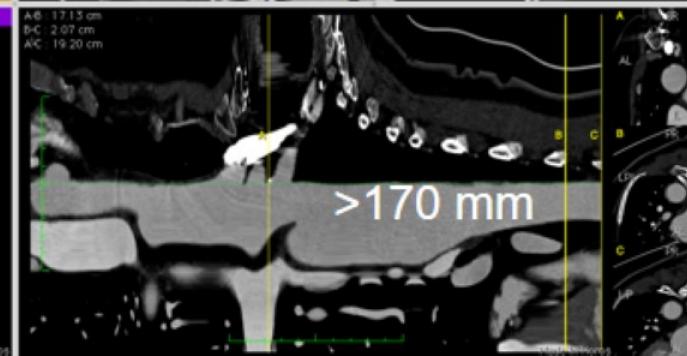
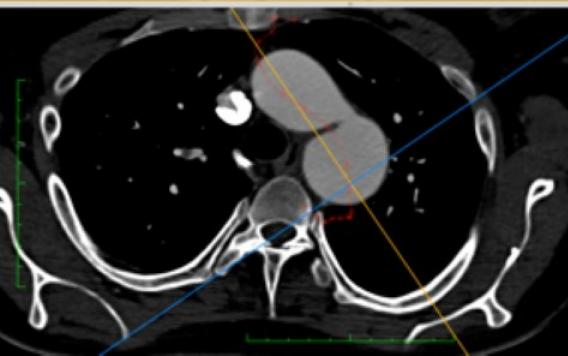
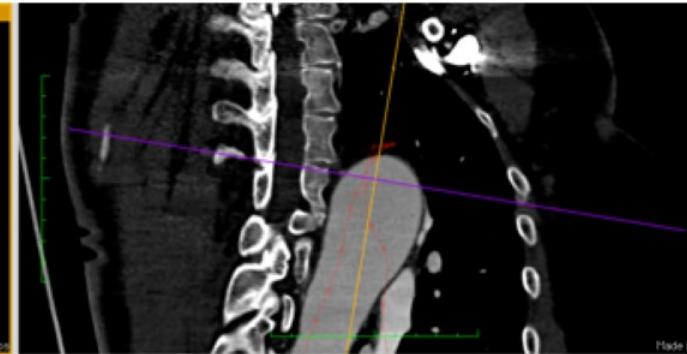
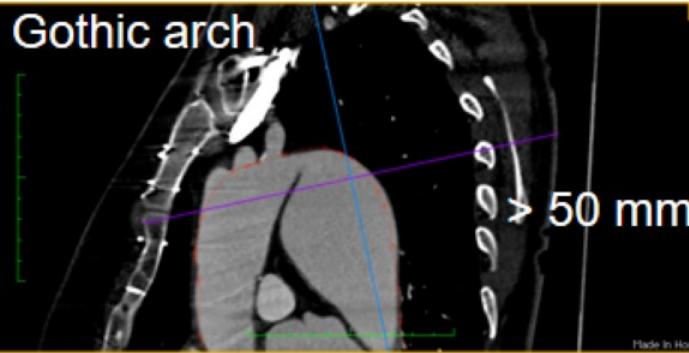


Surgical Strategy

surgical strategy

- Two-staged approach: Z2 FET + TEVAR

Gothic arch



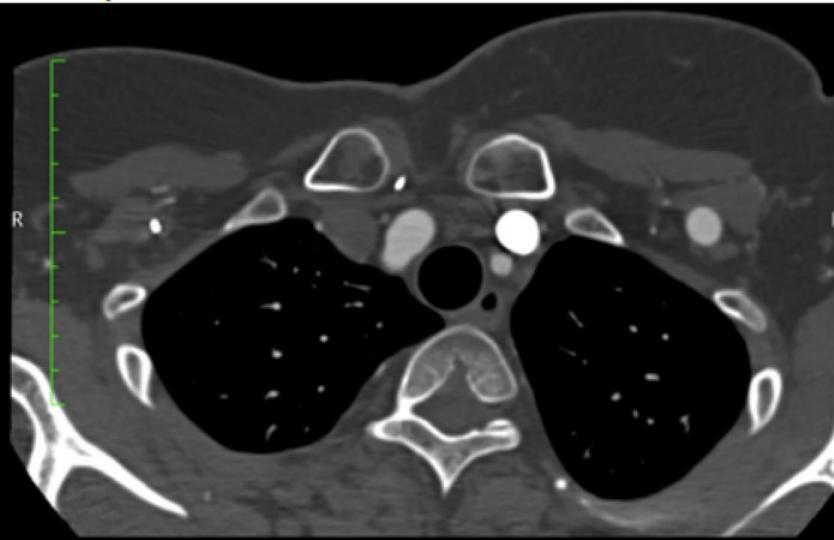
1st stage Z2 FET

Operative data (24 mm EVITA):

- CPB time 235 min
- X-clamp time 69 min
- DHCA @ 24°C
 - distal ischemia 21 min
 - cerebral perfusion 43 min

Postoperative course

- extubated after 8 h
- ICU for 2 days
- discharged 10th POD



2nd stage TEVAR after 3 month



2nd stage TEVAR:

- Cook Zenith 24x105x24
- Spinal drainage

Postoperative course

- extubated in OR
- discharged 6th POD



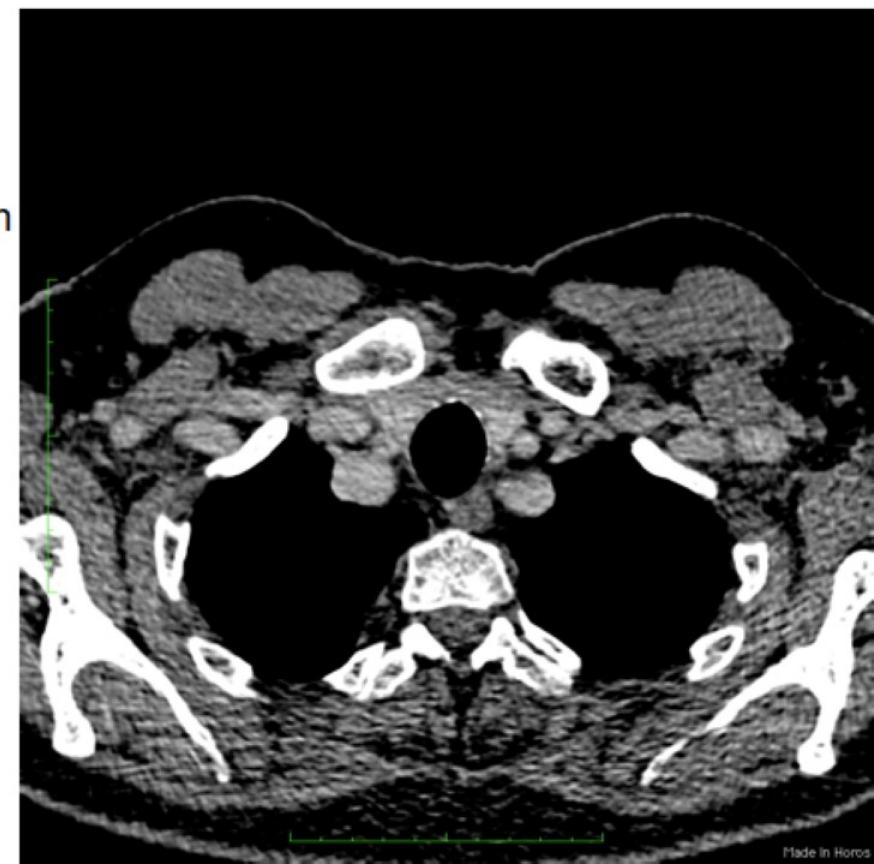
Patient History

Diagnosis & Symptoms

- 73 y/o male, 84 kg, 186 cm
- symptomatic Growing arch aneurysm > 55 mm

History

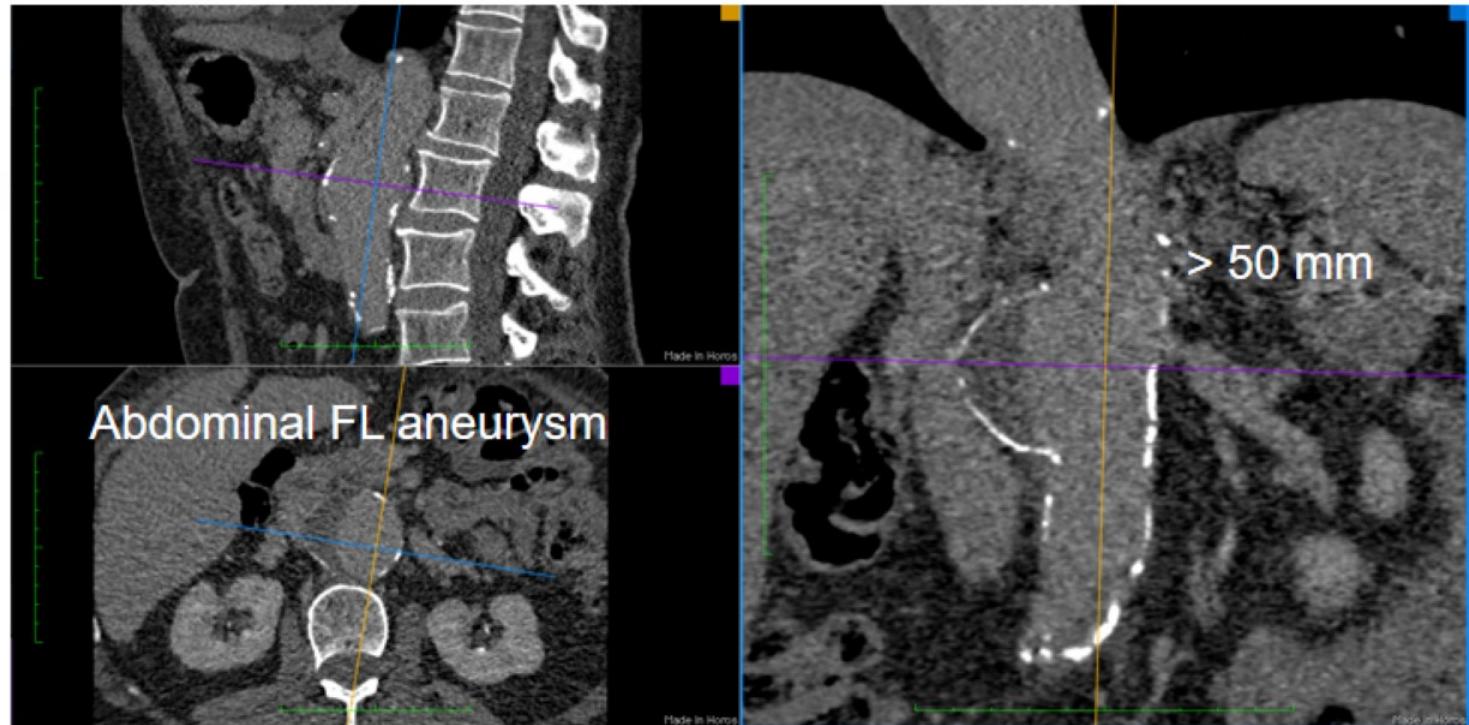
- chronic Type B dissection
- s/p Y prosthesis with increasing abdominal aneurysm



Surgical Strategy

surgical strategy

- 1st stage Z2 FET
- 2nd stage TEVAR
- 3rd stage bEVAR

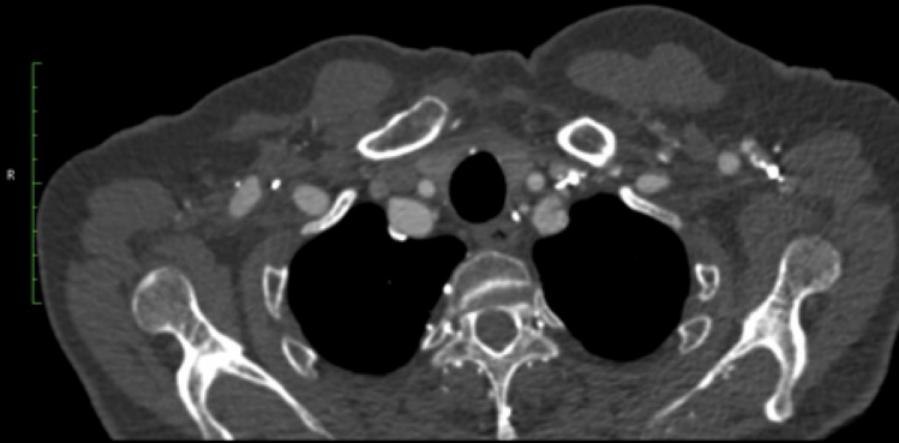


Operative data (36 mm EVITA):

- CPB time 220min
- X-clamp time 112 min
- DHCA @ 26°C
 - distal ischemia 29 min
 - cerebral perfusion 43 min

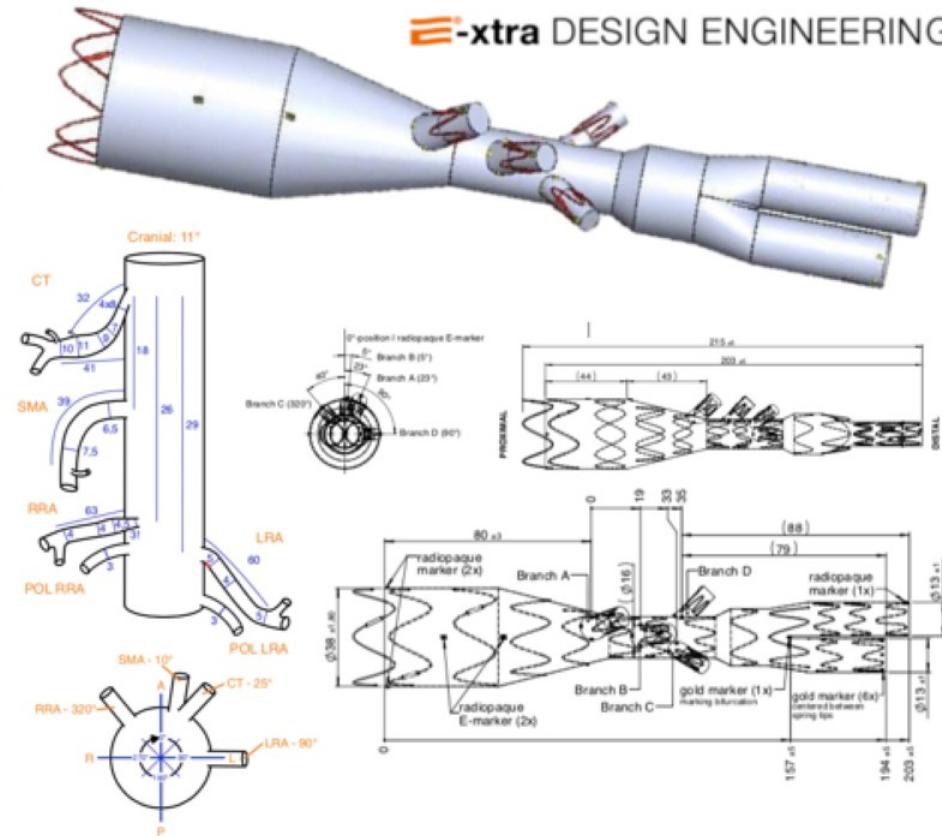
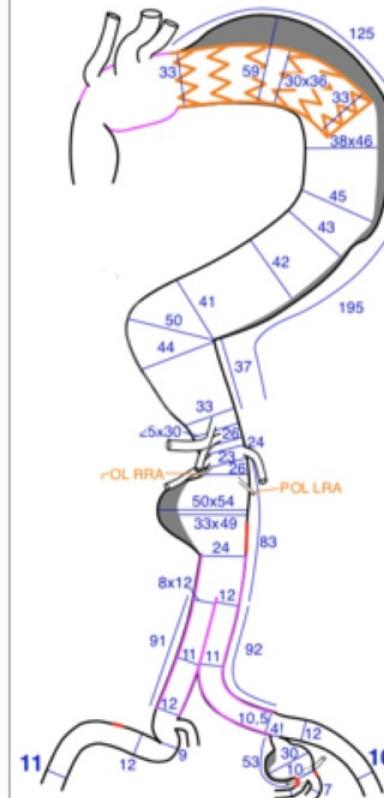
Postoperative course

- extubated after 10 h
- ICU for 2 days
- discharged 12th POD



+ 3rd stage FEVAR in TAAA, Case 4

2nd stage TEVAR and 3rd stage bEVAR planning





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