

OPEN TAAA REPAIR AFTER STENTGRAFTING

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Disclosure

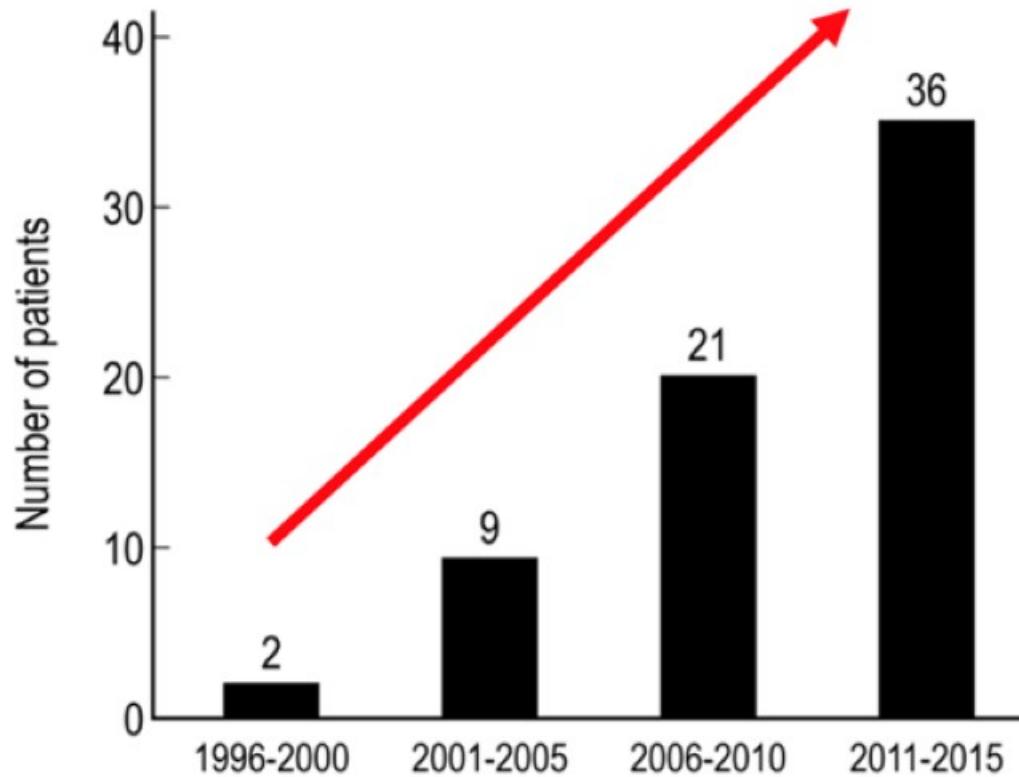
Speaker name:
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I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

- I do not have any potential conflict of interest

Open thoracic conversion

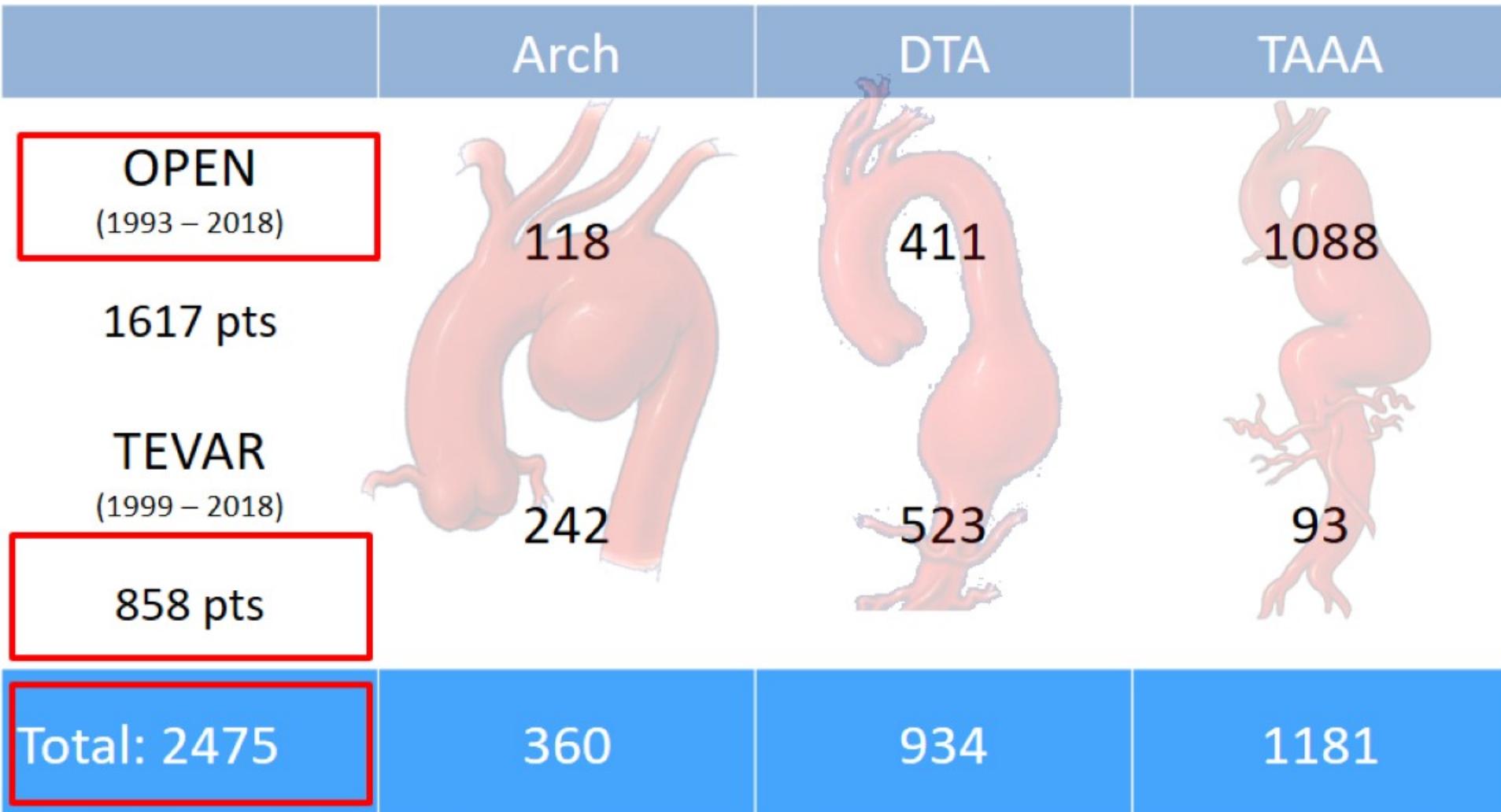


increasing number of stent-graft extractions



San Raffaele Experience

Thoracic aorta (1993 - 2018)



San Raffaele Experience

Thoracic aorta (1993 - 2018)

Reinterventions after TEVAR

190



Initial TEVAR at our Center = 84 pts*

Our reintervention rate = 84/858 (9.8%)

* Initial TEVAR performed at other Centers: 98 pts

Indications to reintervention

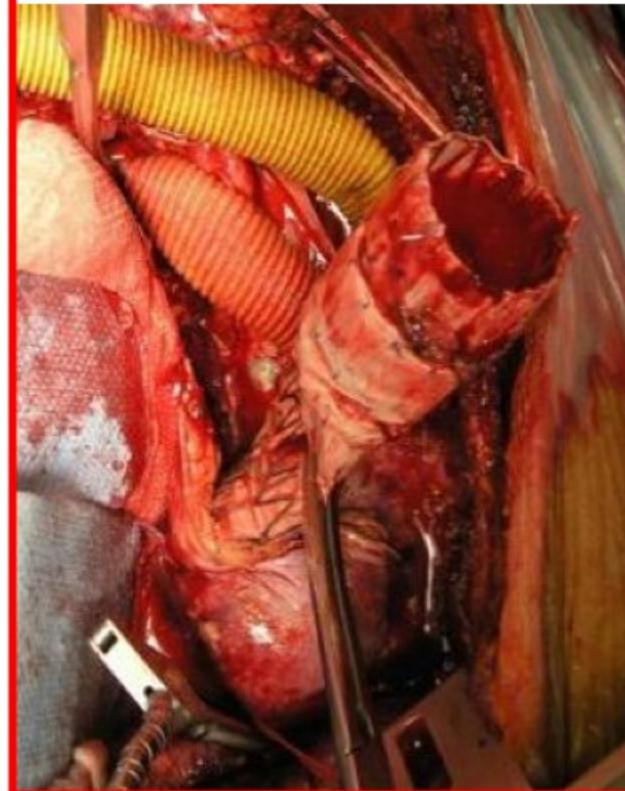
| | | |
|---------------------------|-----|-------|
| Endoleak | 114 | (60%) |
| Stent-graft migration | 32 | (17%) |
| Stent-graft failure | 20 | (11%) |
| Infection / fistulization | 18 | (10%) |
| Retrograde dissection | 6 | (3%) |

“Redo” treatment strategies

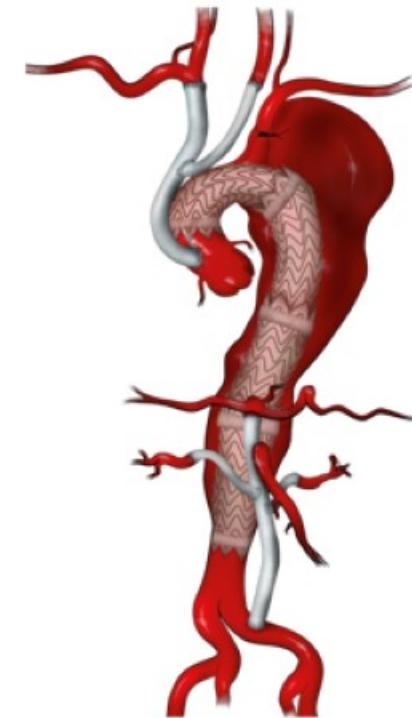
Endo-Procedures
N = 104 (55%)



Open conversion
N = 74 (39%)



Hybrid approach
N = 12 (6%)

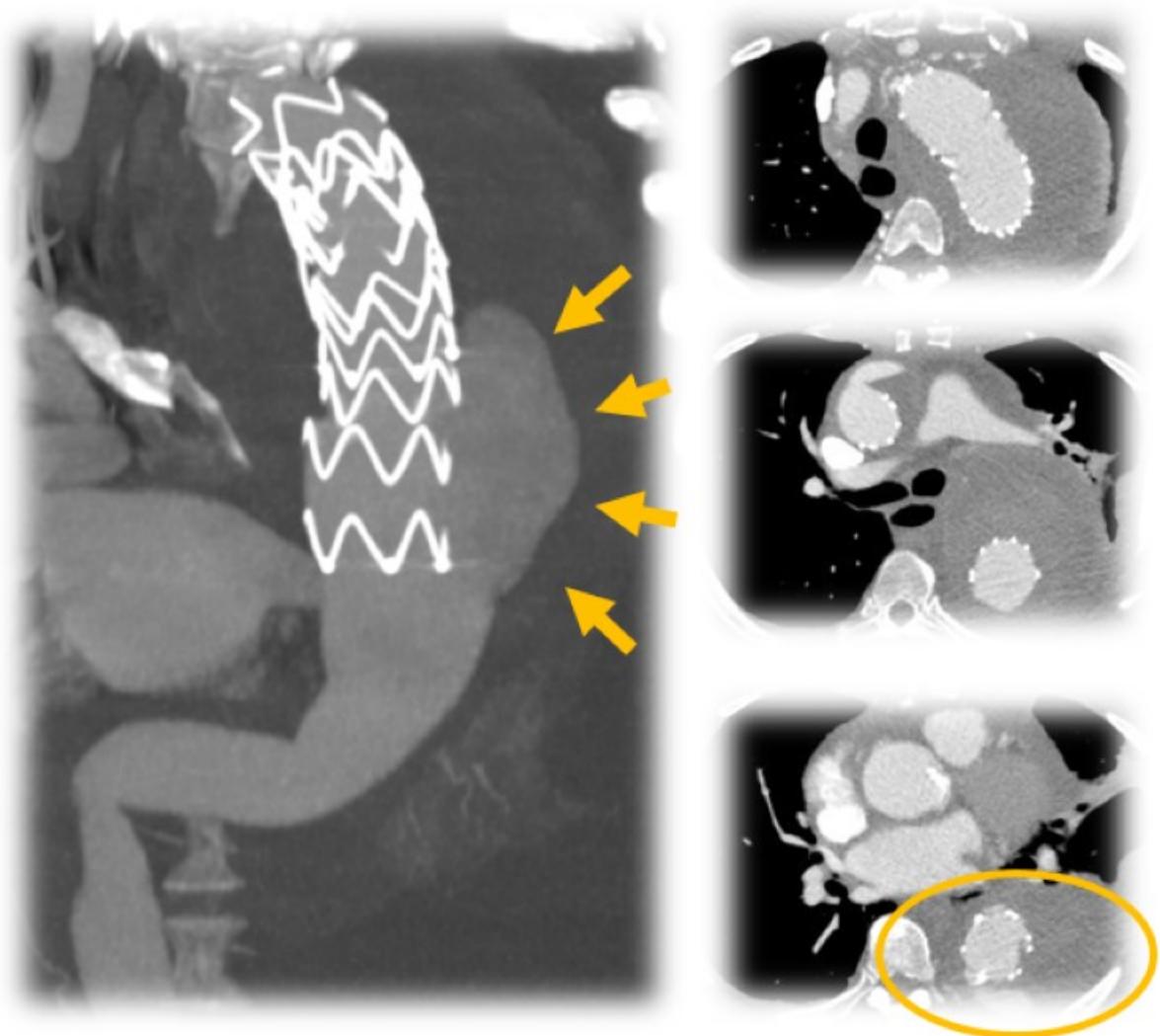


Case #1

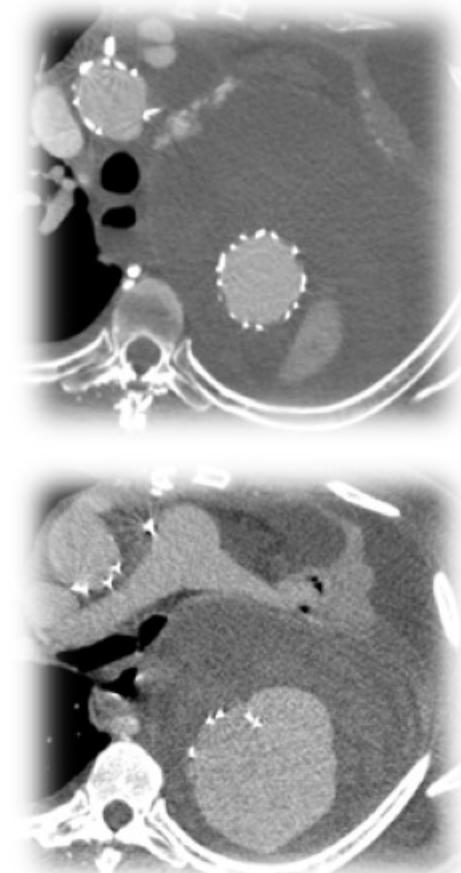
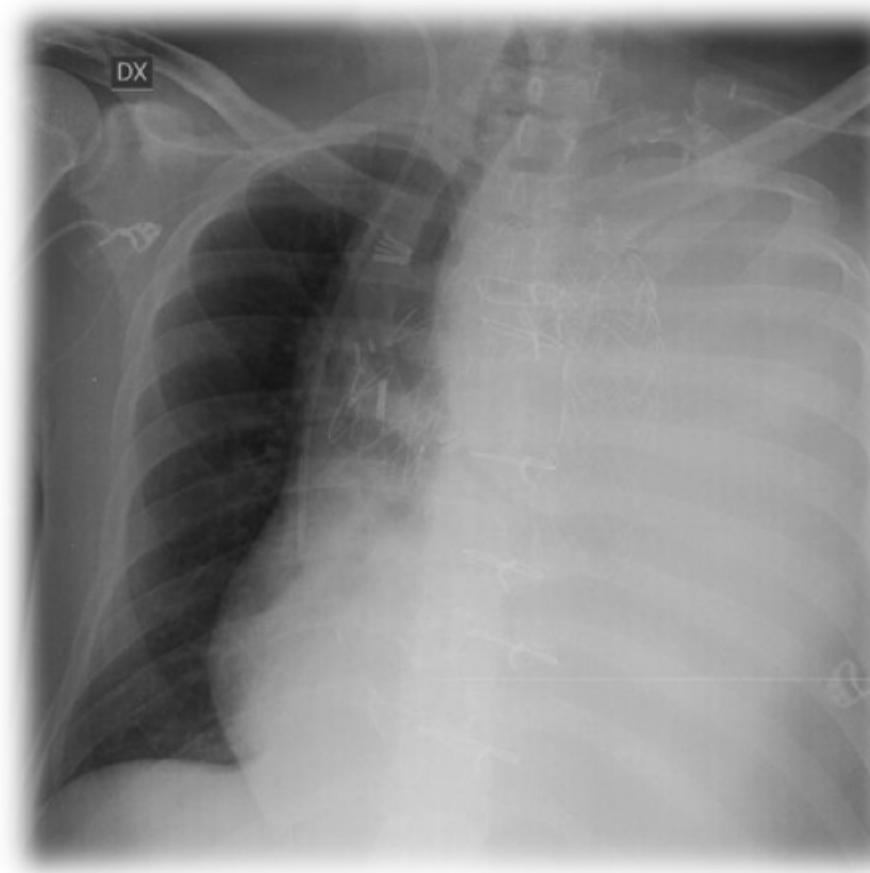
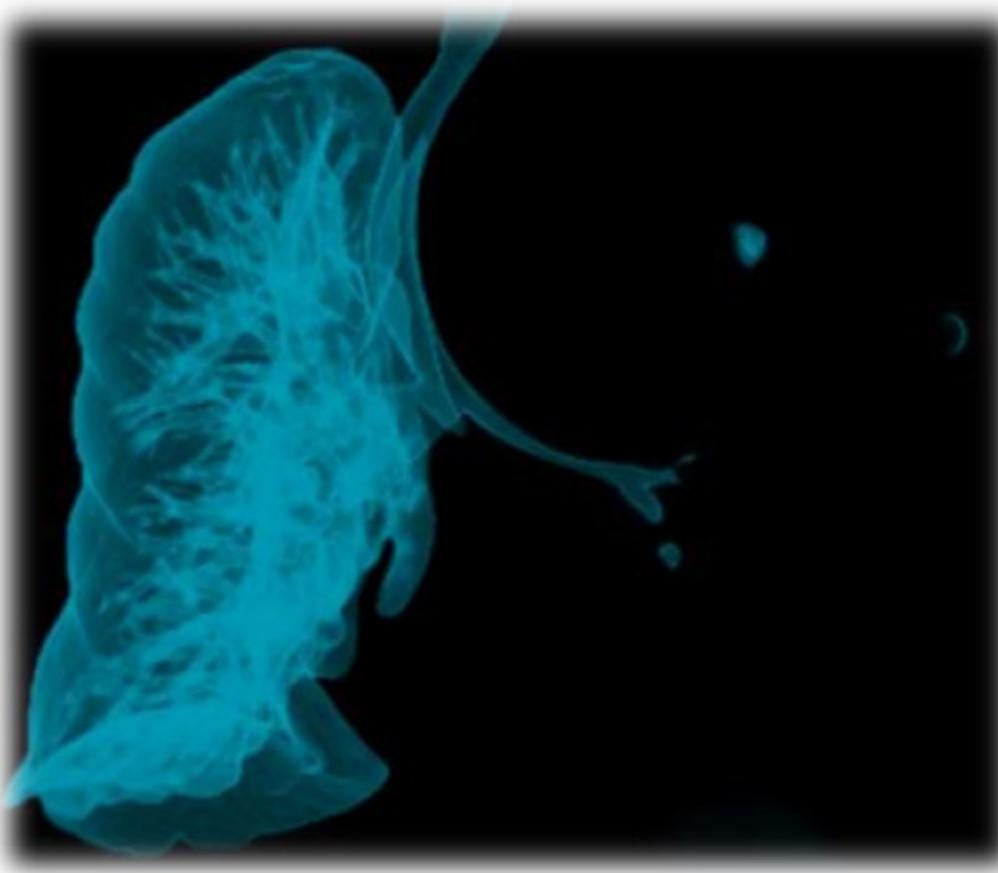
Ruptured dissecting TAAA
after failed TEVAR & SINE

Case #1: SINE & rupture

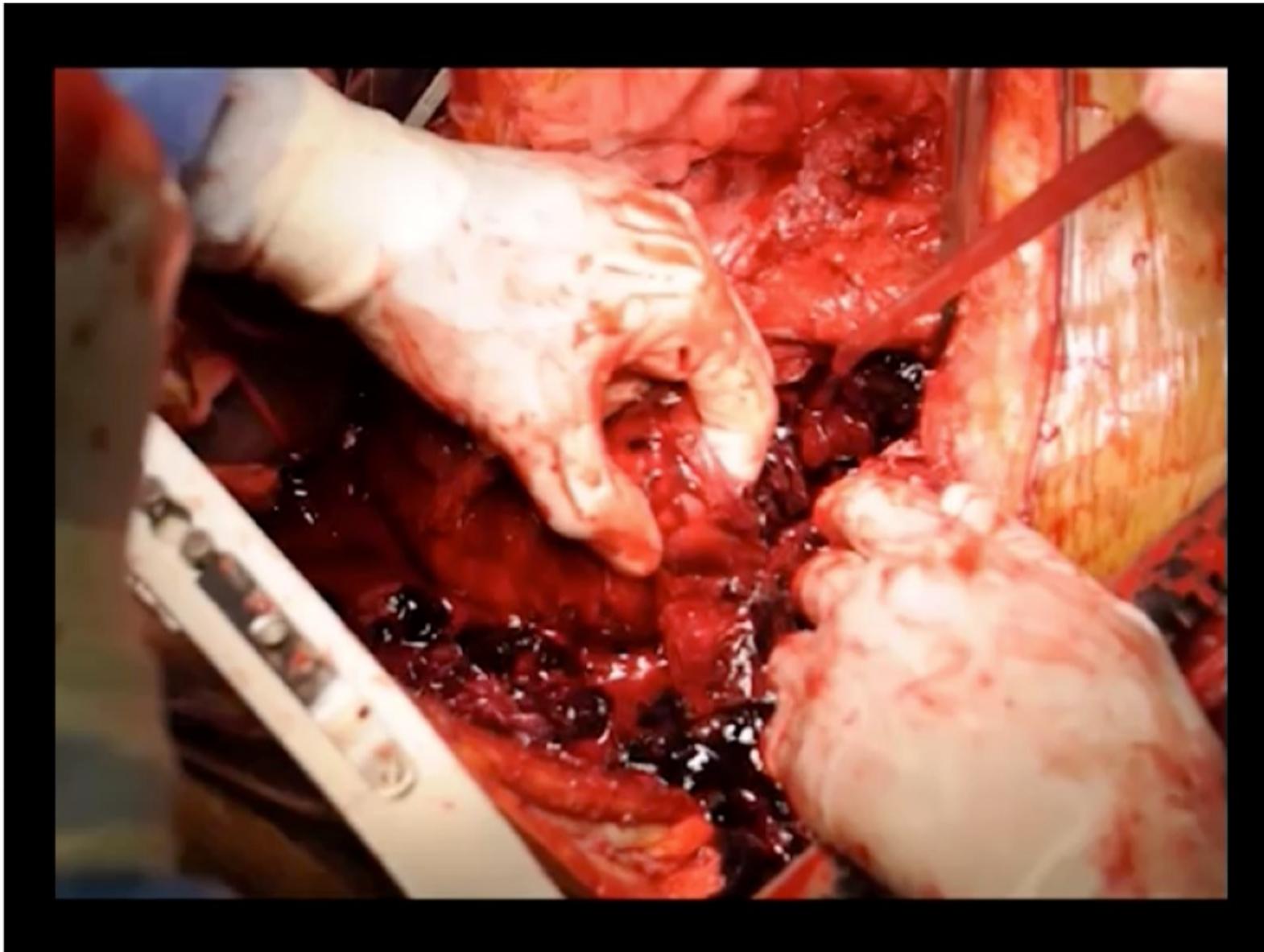
- ♂, 59 yrs
- 2015: Type A dissection → emiarch repair + SAT rerouting
- 2016: TEVAR for residual TBD
- 3 months later: SINE & Rupture



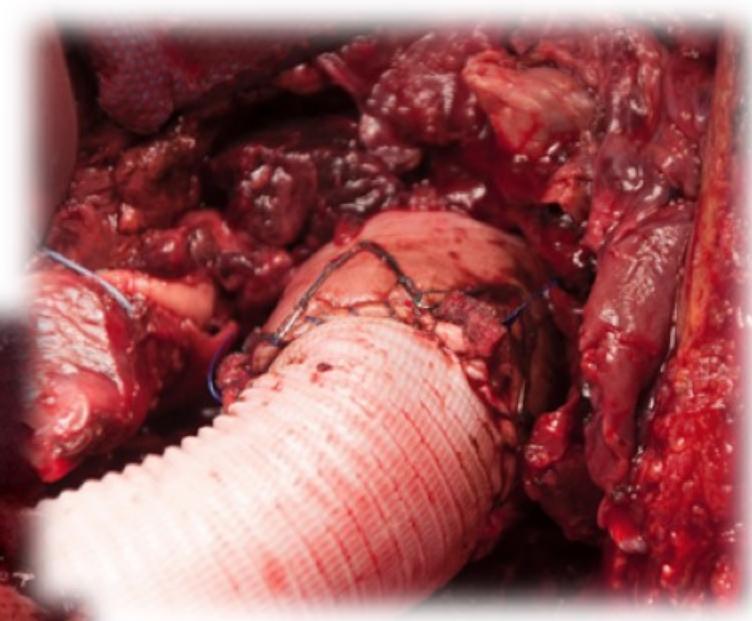
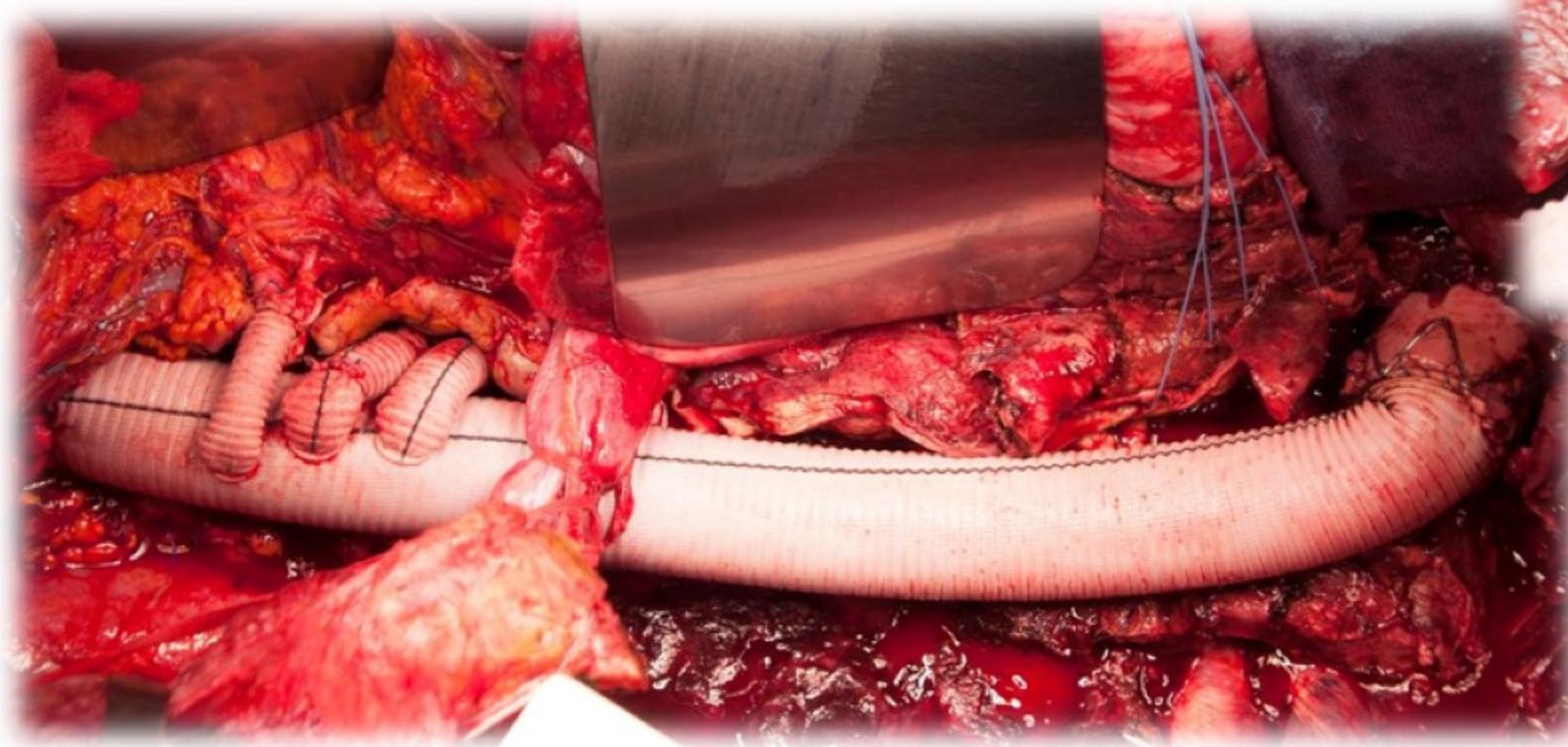
Lung compression



TAAA open repair



Final reconstruction



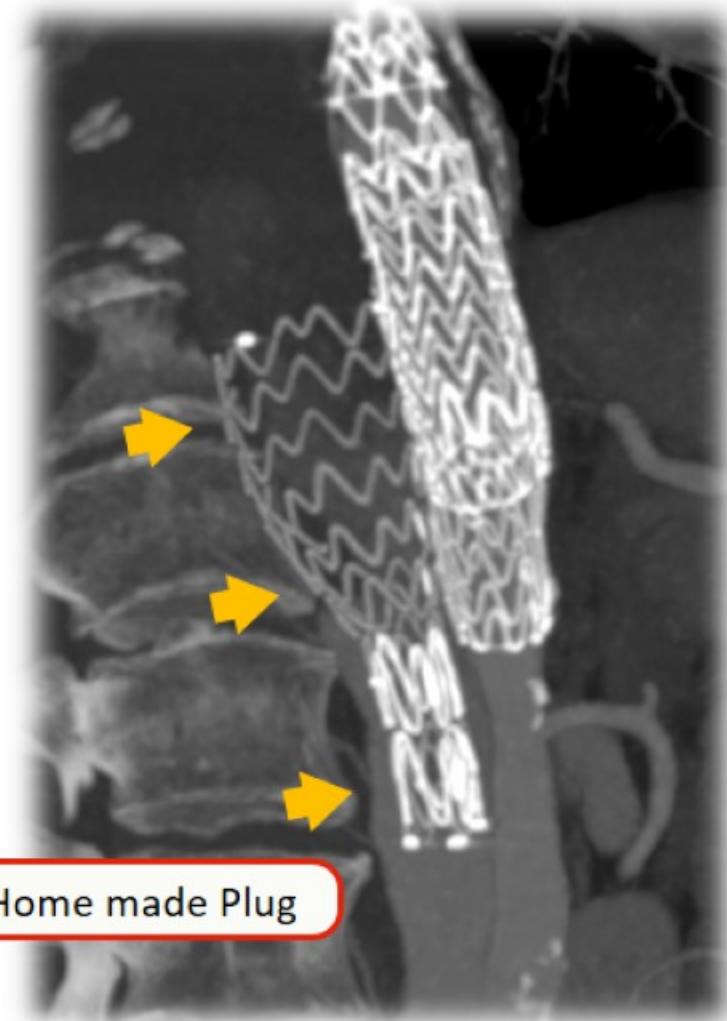
Case #2

*Dissective TAAA & multiple failed
endovascular attempts*



Case #2: Candy plug & pain

- ♂, 62 yo (referred from other Center)
- 07/2017: Acute Type B dissection with impending rupture
- Emergent TEVAR (3 Gore TAG) from LSA to SMA (CT overstenting)
- 12/2017: “Home-made” FL occluder

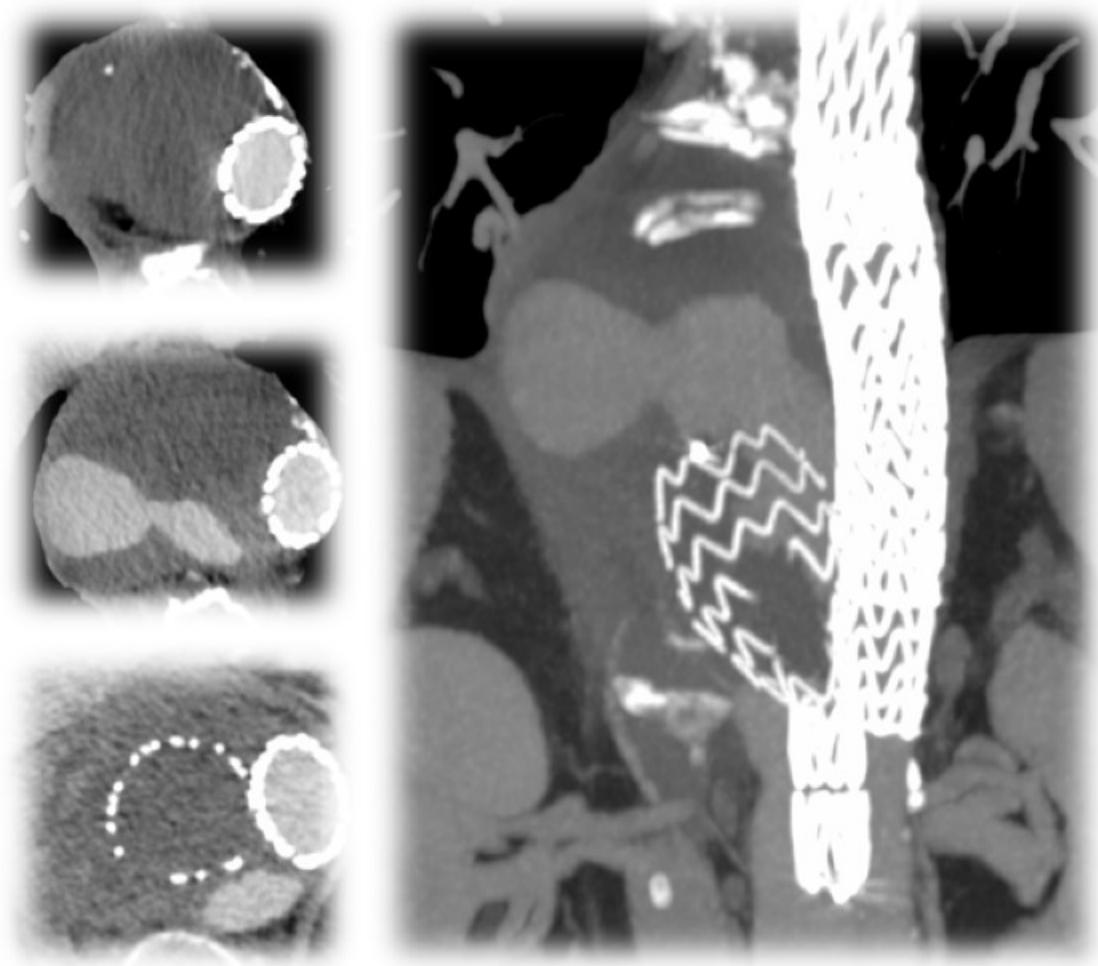


Home made Plug

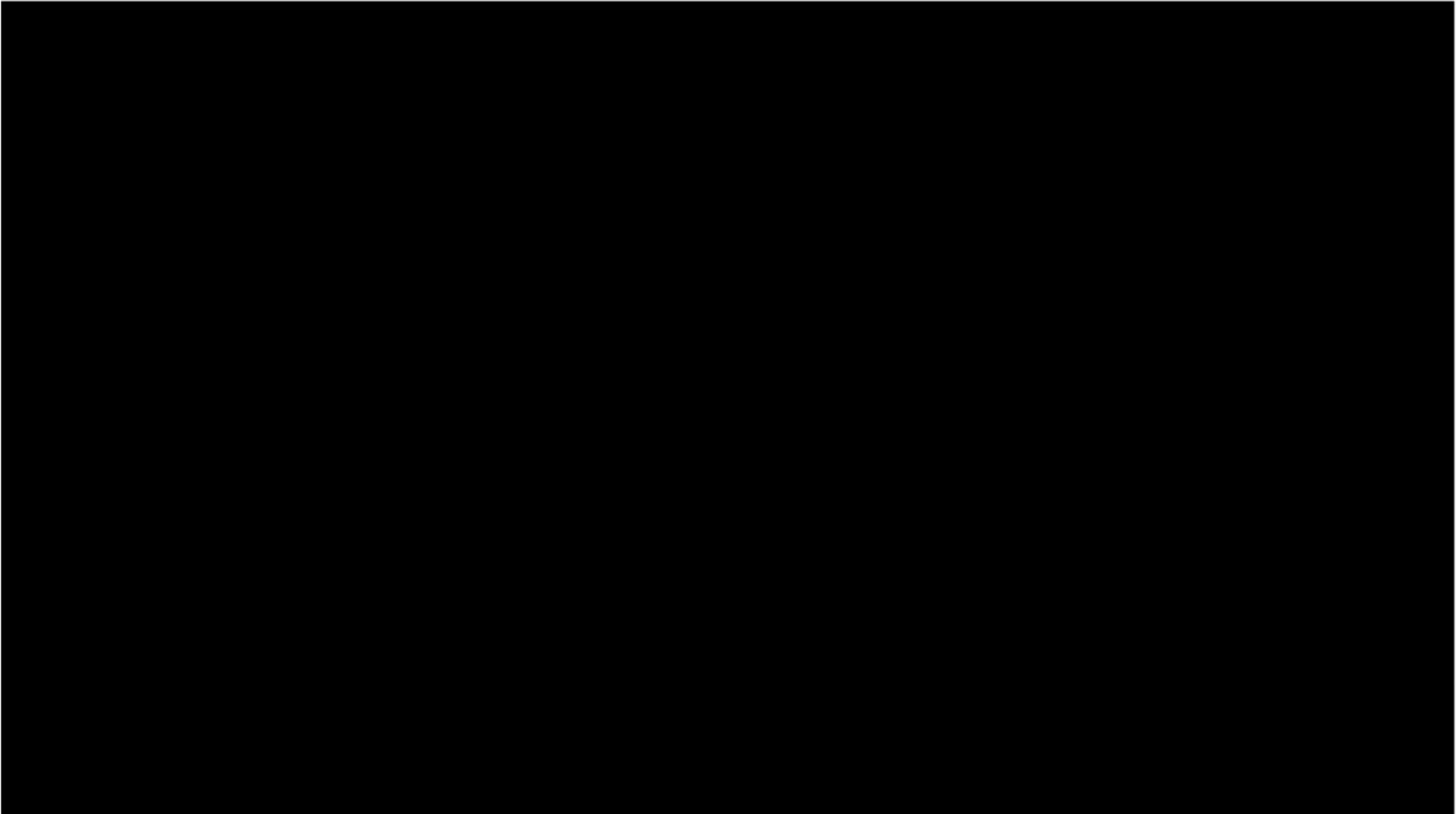
Case #2: Candy plug & pain

After 1 month:

- FL still perfused
- Sac expansion
- Pain



TAAA open repair



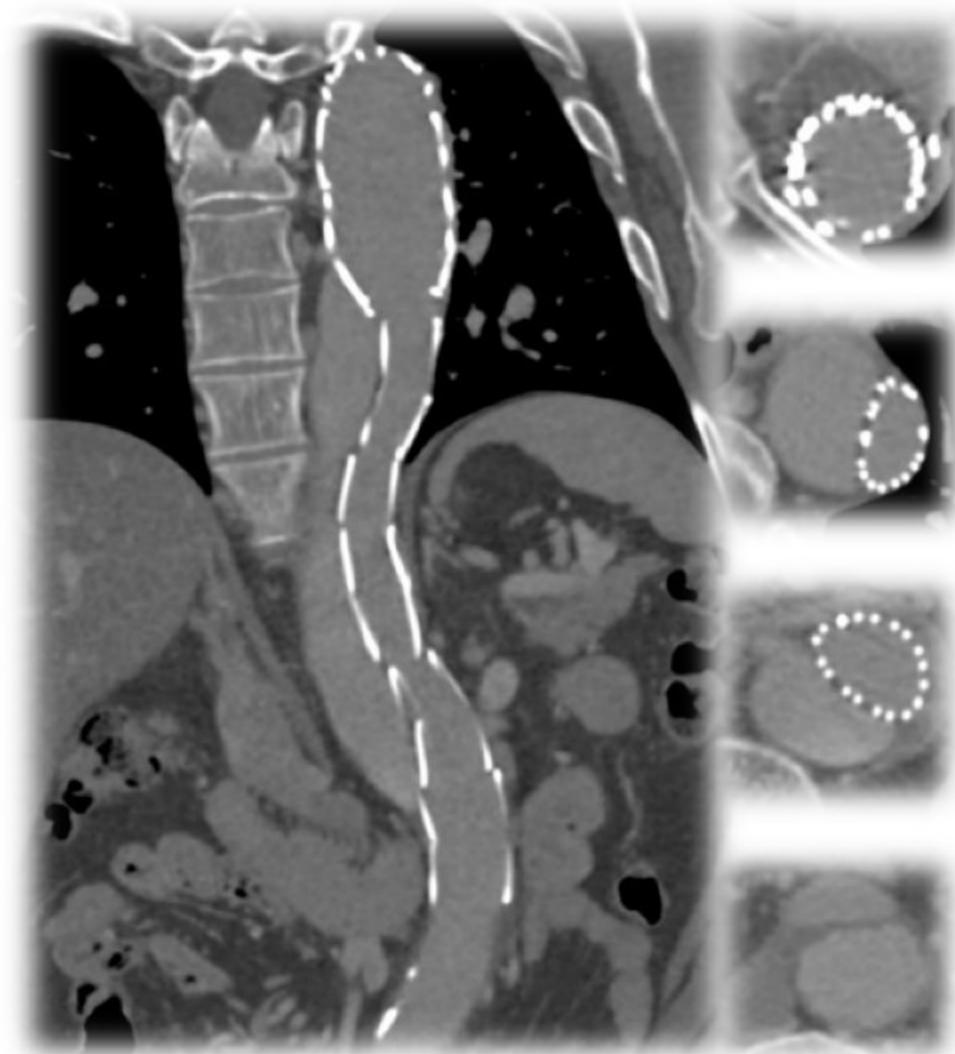
Case #3

Conversion after PETTICOAT

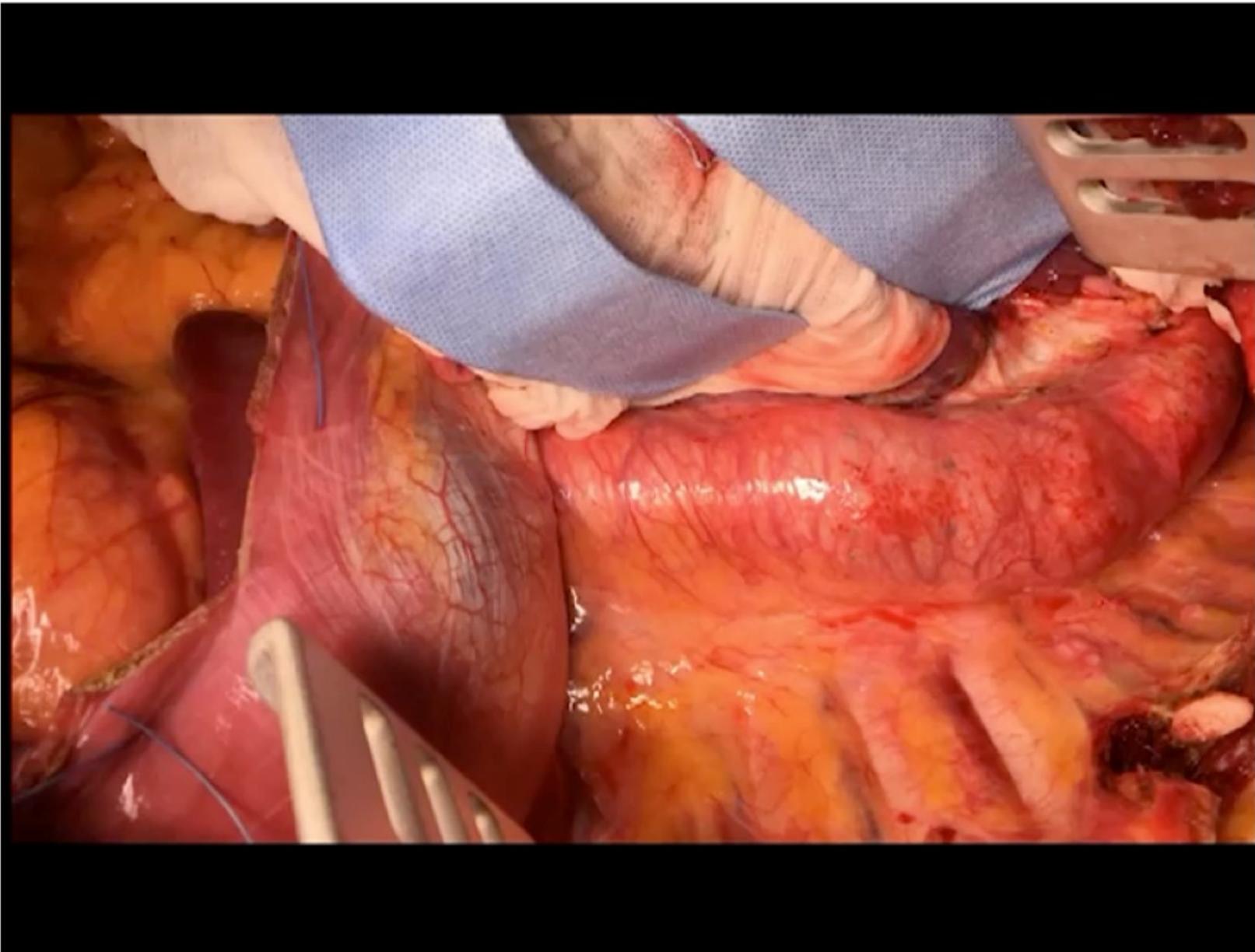


Case #3: TAAA after PETTICOAT

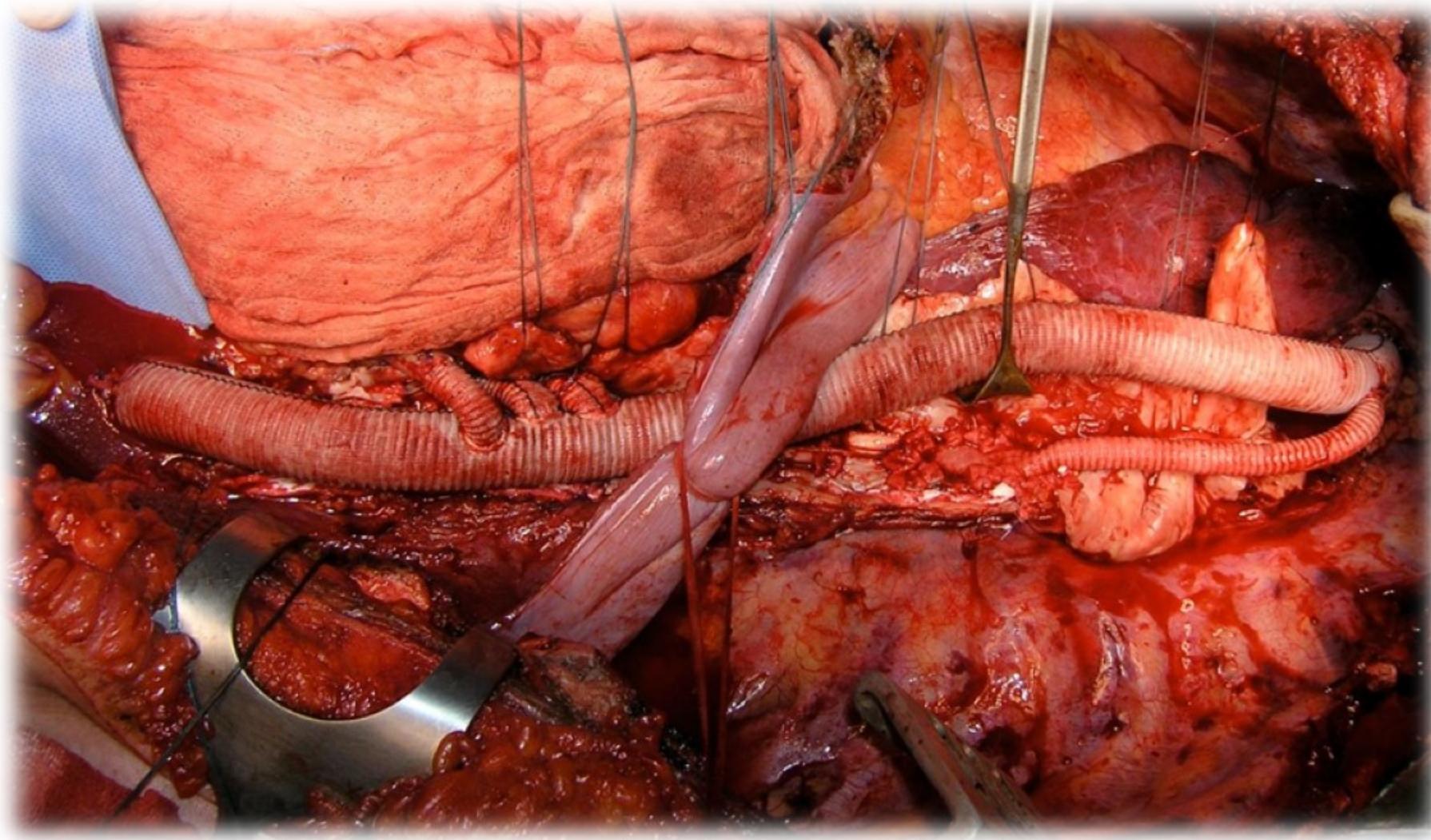
- ♂, 45 yo, Marfan syndrome
- 2000 ascending aorta repair
- 2015 TEVAR + PETTICOAT for acute TBD
- 2017 Enlargement of thoracic & abdominal aorta



TAAA open repair



Final reconstruction



Case #4

Recurrent aorto-esophageal fistula

Case #4: Bariatric surgery

- ♂, 22 y.o
- 2013: Bariatric surgery «sleeve gastrectomy»
- 2013-2016: >10 abdominal surgeries for peritoneal abscesses and gastro-duodenal fistulae



jejunostomy



hostile abdomen

Case #4: TEVAR for FAE

February 2017

- Emergent TEVAR for aorto-esophageal fistula + esophageal bipolar exclusion and cervical esophagostomy



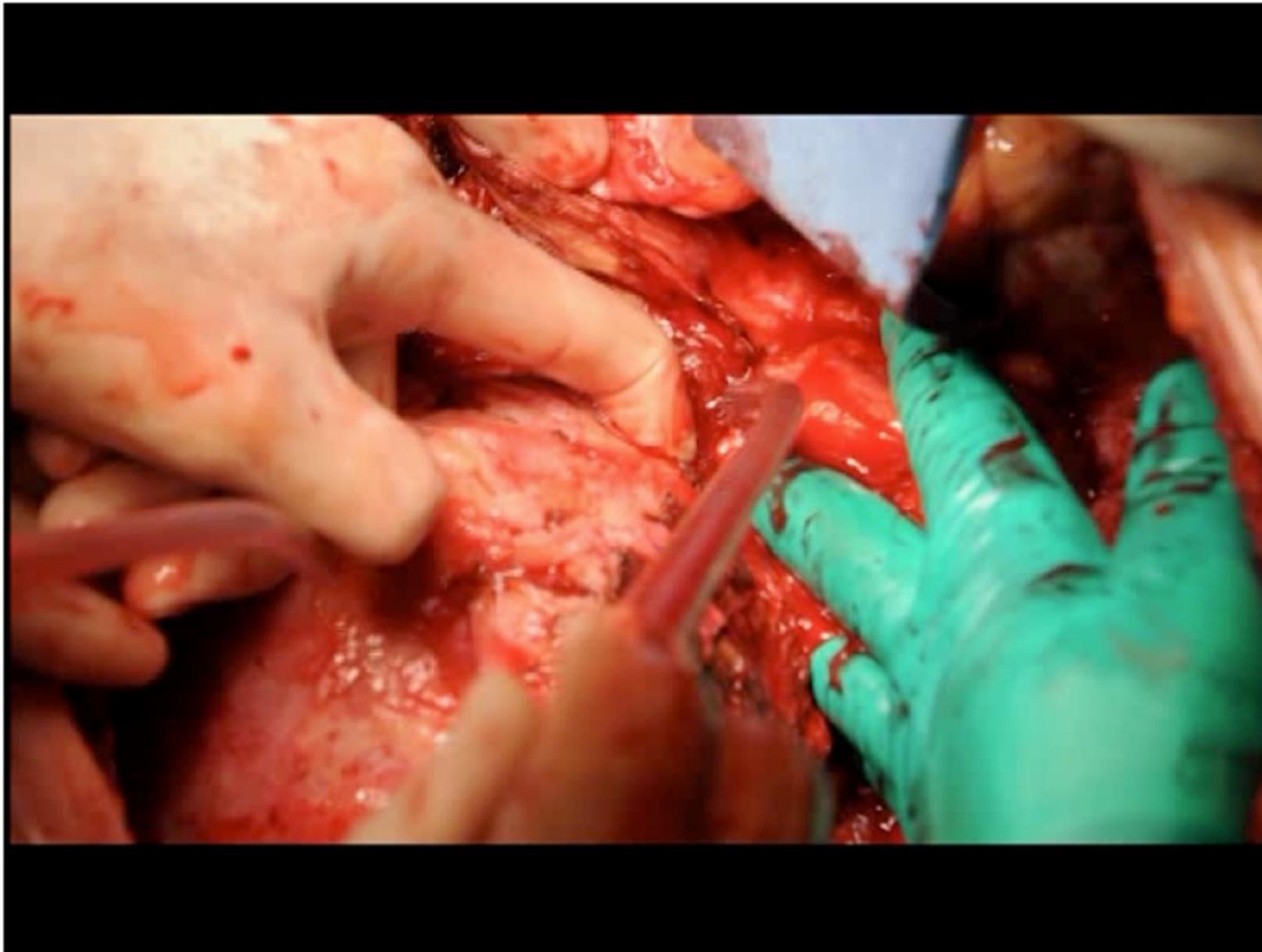
Case #4: Infected DTA pseudoaneurysm

July 2017

- Thoracic pain and acute anemization
- Hemorrhagic esophagocele
- Infected DTA pseudoaneurysm



TAAA open repair



Happy end



TEVAR conversion: Results

| | Open conversion N pts (%) |
|---------------------|------------------------------|
| Total | 74 |
| Mortality (30-days) | 11 (15%) |
| Major morbidity | |
| Respiratory failure | 18 (24%) |
| Renal failure | 11 (15%) |
| Paraplegia | 5 (7%) |

Results depend on cause of conversion

| Indication to conversion | 30-days Mortality |
|------------------------------------|-------------------|
| Endoleak (34) | 2 (6%) |
| Endograft migration + failure (17) | 2 (12%) |
| Retrograde dissection (6) | 2 (33%) |
| Infection/fistulization (17) | 5 (30%) |



Comparative study

| Period 2008 - 2015 | A Standard TAAA group n = 357 | B TAAA OPEN after TEVAR failure n = 29 | p |
|-----------------------|-------------------------------------|--|-------|
| Blood loss (mL) | 4932 | 7062 | .016 |
| Operative time (h) | 4.8 | 5.4 | .020 |
| Paraplegia | 29 (8.1) | 2 (6.9) | 1 |
| Respiratory Failure | 13 (3.6) | 4 (13.8) | .03 |
| Renal Failure | 92 (25.7) | 8 (27.6) | .82 |
| 30-day mortality | 16 (4.5) | 7 (24.1) | .0007 |

Conclusion

- Close follow-up after TEVAR
 - Open conversion
 - a) Technical challenge
 - b) Acceptable results in High Volume Centers
 - Increased mortality in case of retrograde dissection and infection
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