MARCH 21 & 22 2024
COPENHAGEN/MALMÖ
SCANDIC TRIANGELN, MALMÖ

Endograft wrapping with aortic wall in chronic dissections: when is it worth the effort?

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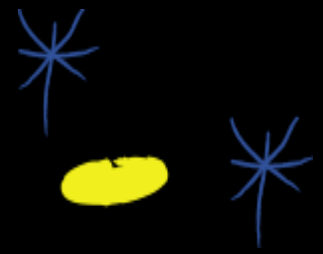
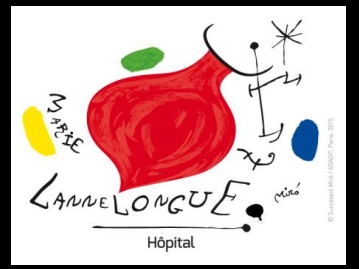
Disclosure

- I have the potential following conflicts to report:
  - Gore Medical
  - Medtronic
  - Affluent





The size of a fixed thoracic aneurysm = prognosis factor!

JAMA Cardiology | Original Investigation

Association of Thoracic Aortic Aneurysm Size With Long-term Patient Outcomes

The KP-TAA Study

Matthew D. Solomon, MD, PhD; Thomas Leong, MPH; Sue Hee Sung, MPH; Catherine Lee, PhD; J. Geoff Allen, MD; Joseph Huh, MD; Paul LaPunzina, MD; Hon Lee, MD; Duncan Mason, MD; Vicken Melikian, MD; Daniel Pellegrini, MD; David Scoville, MD, PhD; Ahmad Y. Sheikh, MD; Dorinna Mendoza, MD; Sahar Naderi, MD; Ann Sheridan, MD; Xinge Hu, MD, PhD; Wendy Cirimele, BSN, MPA; Anne Gisslow, RN, MSN; Sandy Leung, RN; Kristine Padilla, RN; Michael Bloom, MA; Josh Chung, MD; Adrienne Topic, MD; Paniz Vafaei, MD; Robert Chang, MD; D. Craig Miller, MD; David H. Liang, MD, PhD; Alan S. Go, MD; for the Kaiser Permanente Northern California Center for Thoracic Aortic Disease

Solomon, Jama 2022

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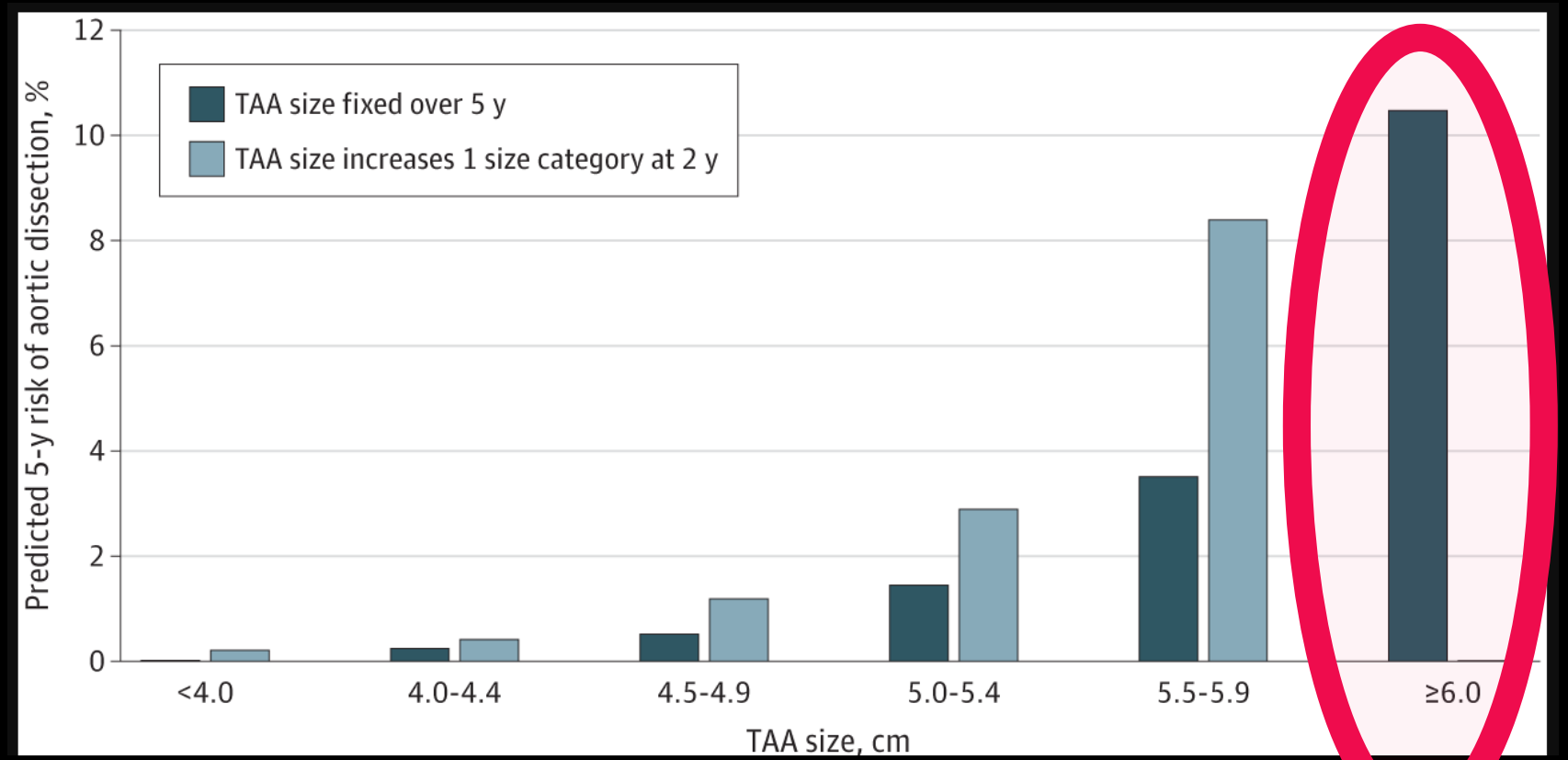
The 5y Mortality Risk for Fixed TAA of more than 6 cm is more than 10 %



What's up with a 9 cm thoracic aneurysm?

Diagn Interv Radiol 2013; 19:81–84

INTERVENTIONAL RADIOLOGY

CASE REPORT

Secondary aortoesophageal fistula after thoracic endovascular aortic repair for a huge aneurysm

Akhmadu Muradi, Masato Yamaguchi, Atsushi Kitagawa, Yoshikatsu Nomura, Takuya Okada, Yutaka Okita, Koji Sugimoto

ABSTRACT
Thoracic endovascular aortic repair for a descending thoracic aortic aneurysm is an excellent alternative to open surgery, especially in patients with a number of comorbidities. It may cause fatal complications, including aortoesophageal fistula, but these are very rare. Here, we report the case of secondary aortoesophageal fistula four months after the procedure for a huge descending thoracic aortic aneurysm, which presented with new-onset high-grade fever accompanied by elevated inflammatory markers.

Thoracic endovascular aortic repair (TEVAR) is a minimally invasive and generally excellent modality to treat descending thoracic aortic aneurysms. Several complications, however, may occur, including paraplegia, stroke, and occasionally, aortoesophageal fistula (AEF) (1, 2). AEF often has a short clinical course, and many physicians are generally unaware of this fatal complication (2). Here we report a rare case of secondary AEF that occurred four months after TEVAR, and review of the recent literature. These findings emphasize the importance of careful treatment for a huge descending thoracic aortic aneurysm.

Case report

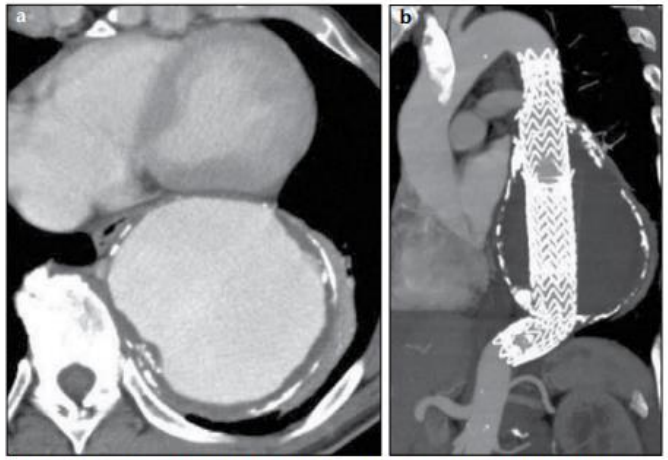


Figure 1. a, b. CT image of the huge descending thoracic aortic aneurysm before **(a)** and maximum intensity projection image after **(b)** thoracic endovascular aortic repair (TEVAR). The preoperative diameter of the aneurysm was 90 mm. The descending thoracic aortic aneurysm was treated by TEVAR without any endoleak.

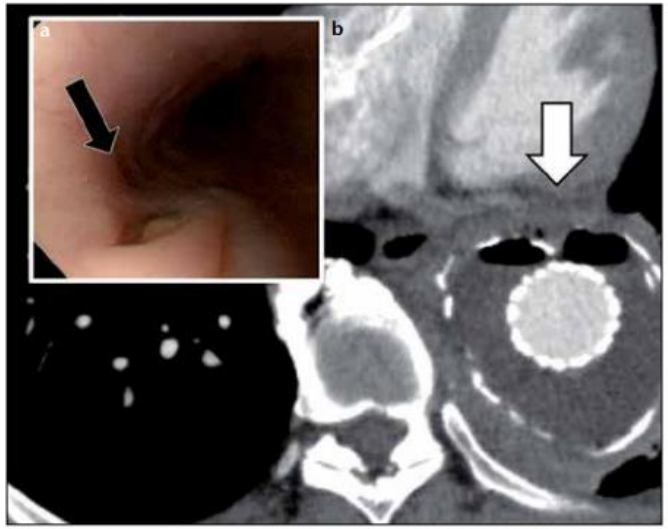


Figure 2. a, b. Esophagogastroduodenoscopy **(a)** and CT **(b)** images of the aortoesophageal fistula detected air bubbles around the stent graft in the aneurysm sac of the descending thoracic aorta **(b**, *white arrow*). The precise fistula site was not visible, but no contact between the stent graft and the fistula was observed. A fistula without any bleeding was seen at the inner surface of the mid-esophagus **(a**, *black arrow*).

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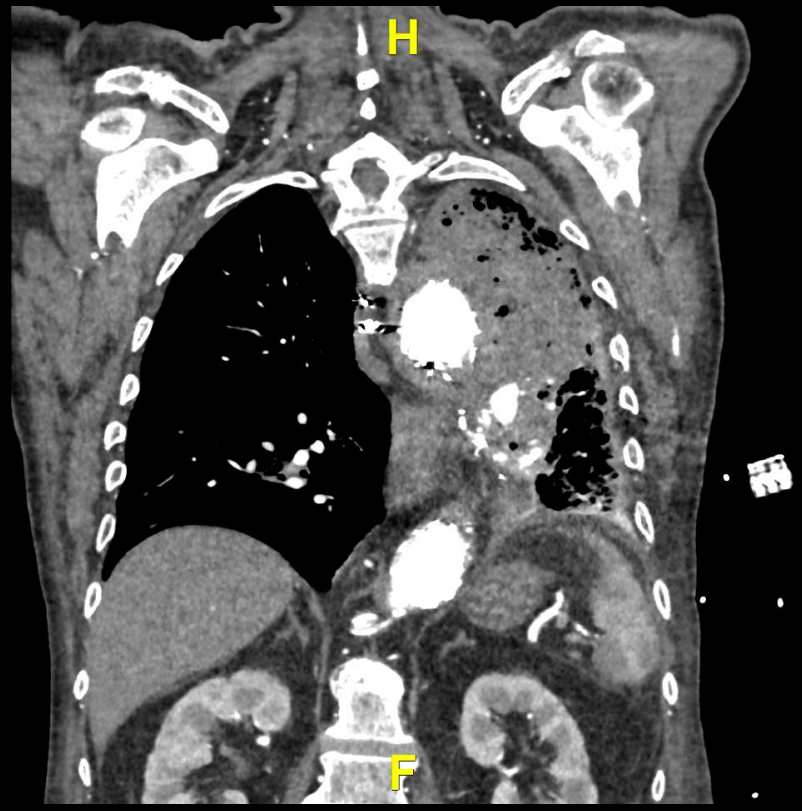
Large Aneurysm after TEVAR could lead to infection… often due to 2nd fistula / lung / oesophagus / bronchus/…



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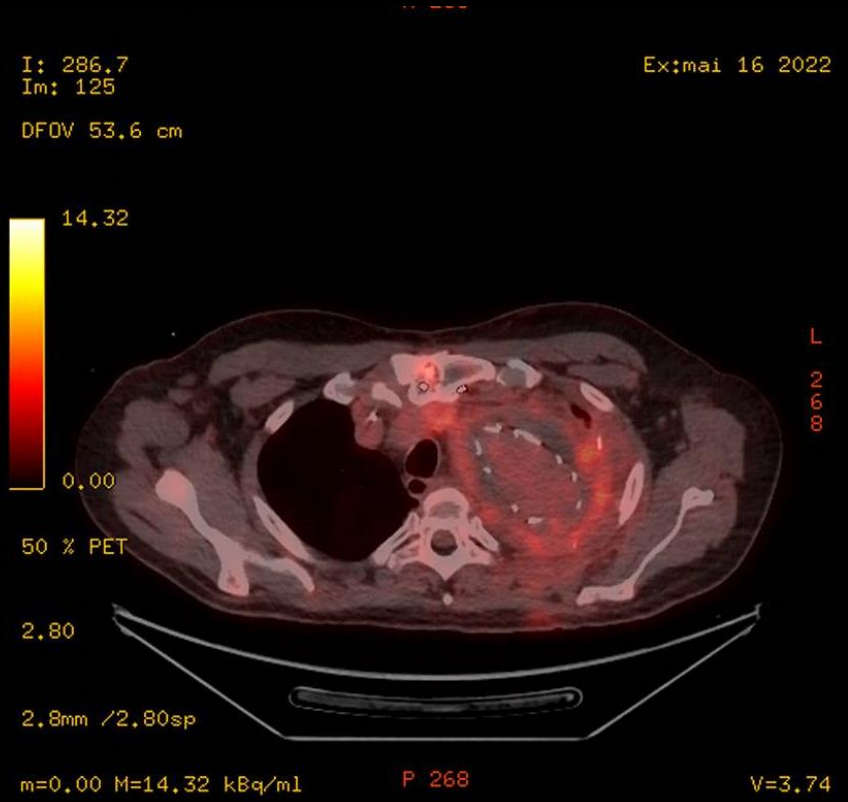
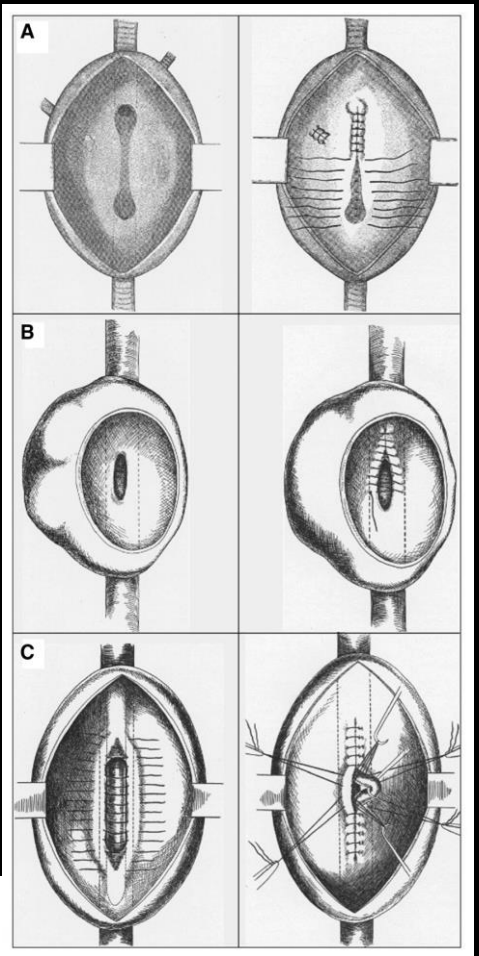


Open Aneurysmorrhaphy



Described by Matas, Open aneurysmorrhaphy (OA) is one of the oldest vascular technique.

It is a solution for the treatment of sac expansion after TEVAR of thoracic aortic aneurysms

Matas, Ann Surg 1903

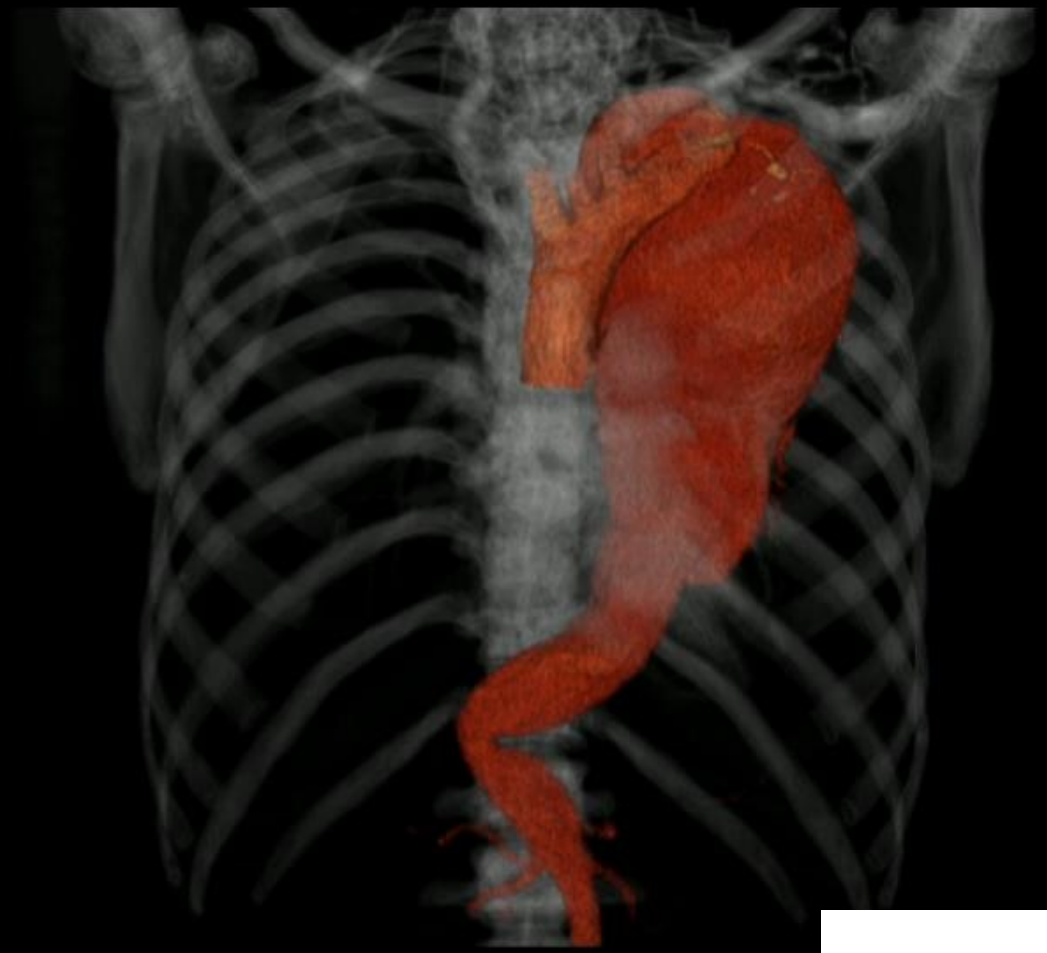
Case 1

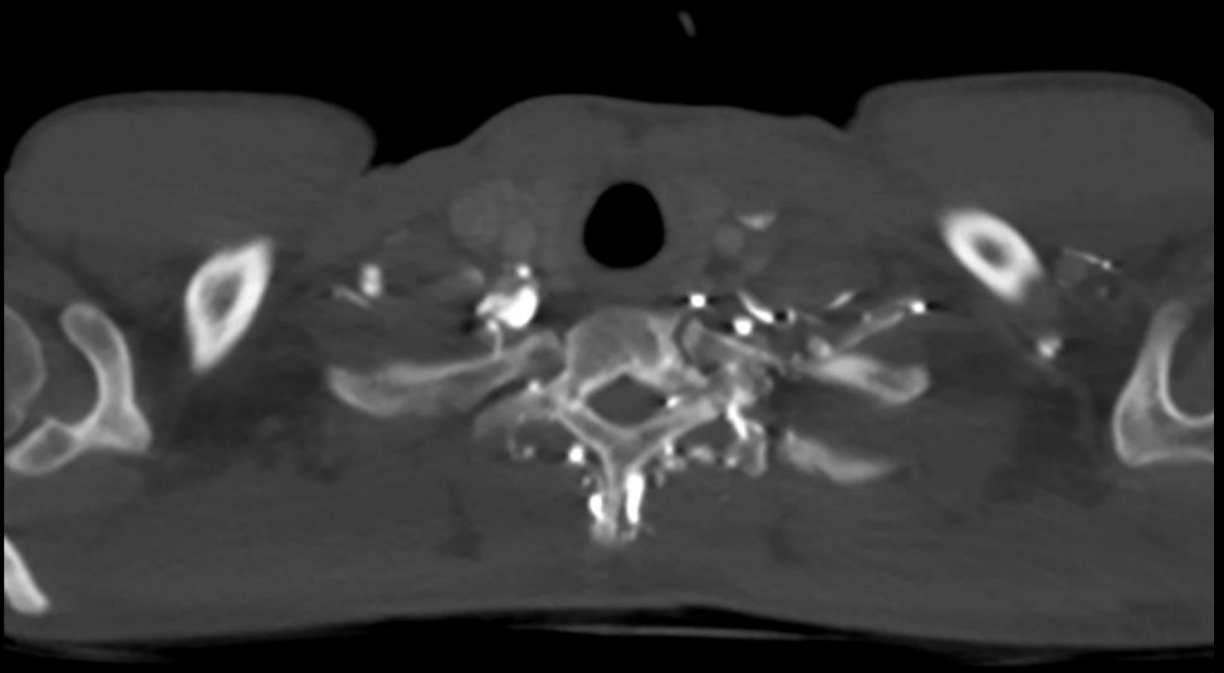
43 old Male

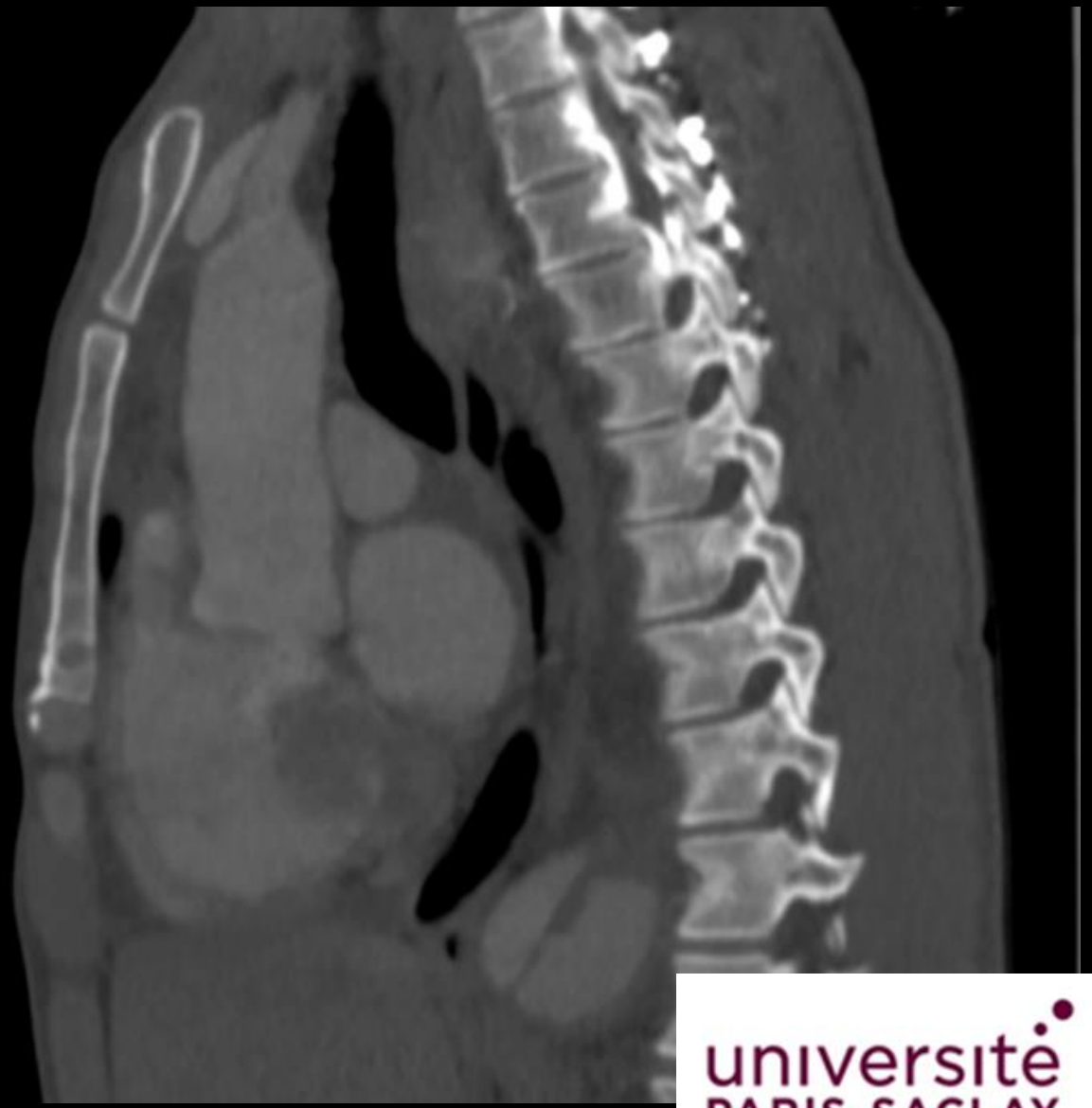
No Medical History

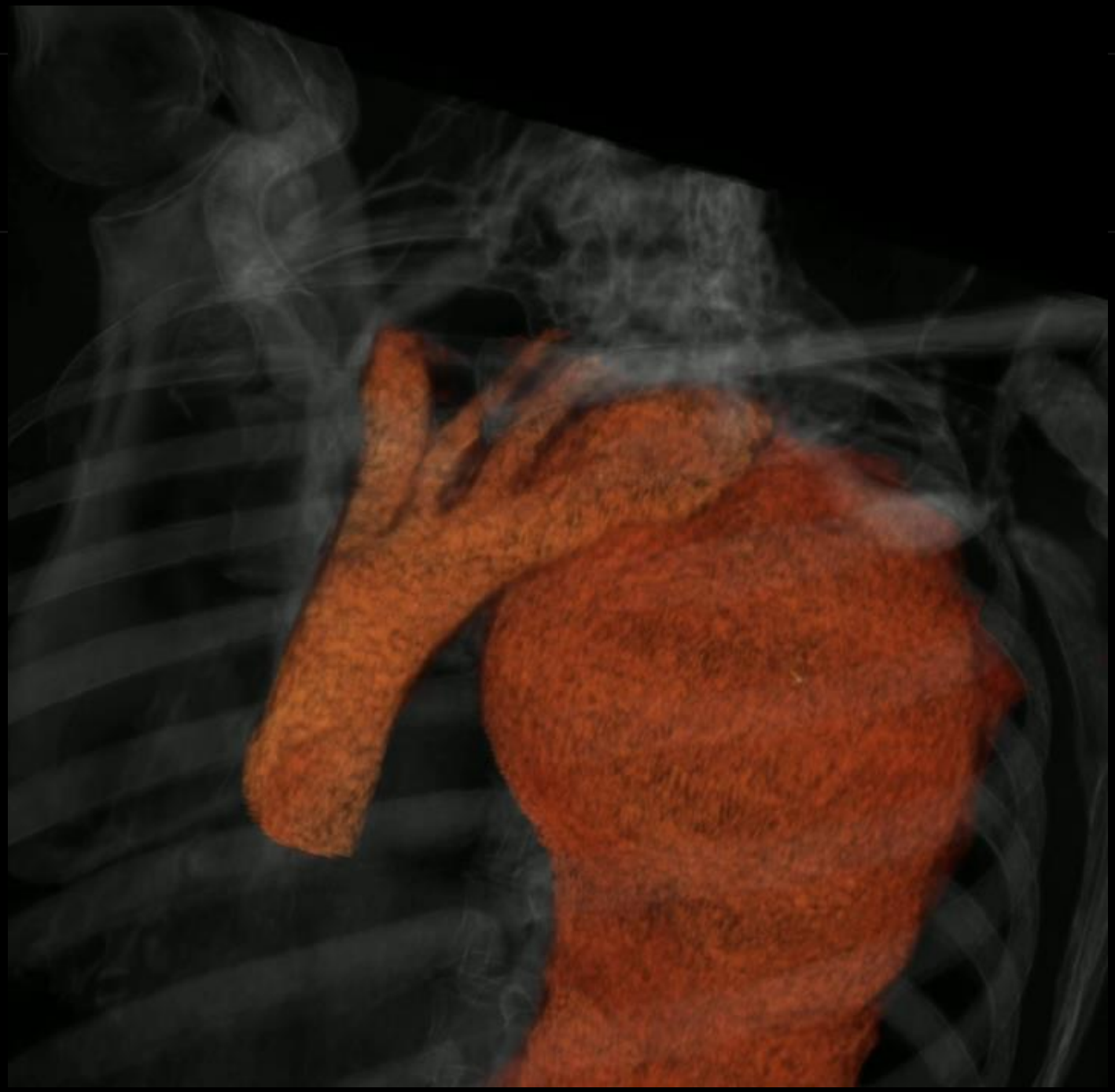
Acute Thoracic Pain

12 cm Thoracic aneurysm / dissection

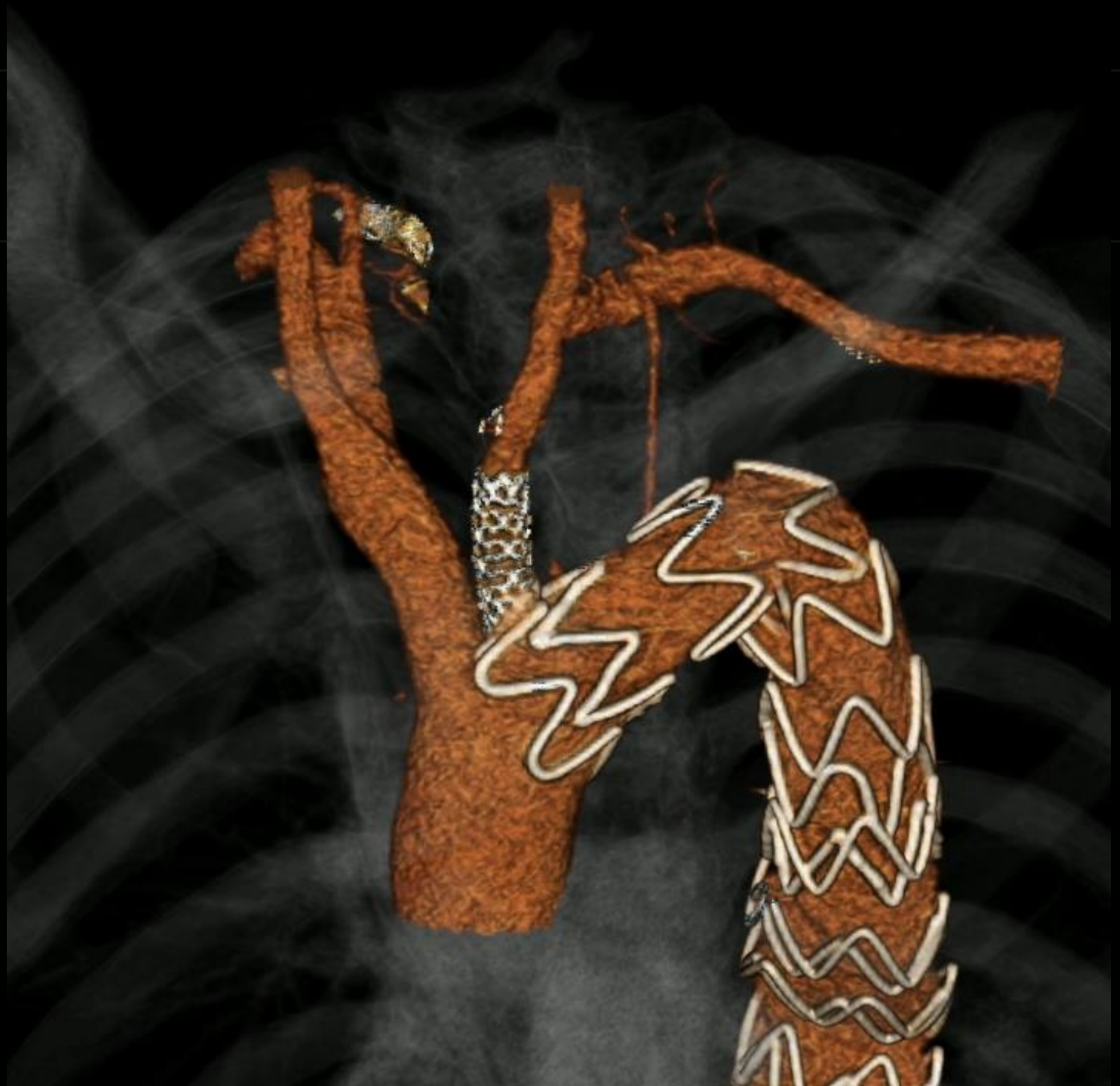






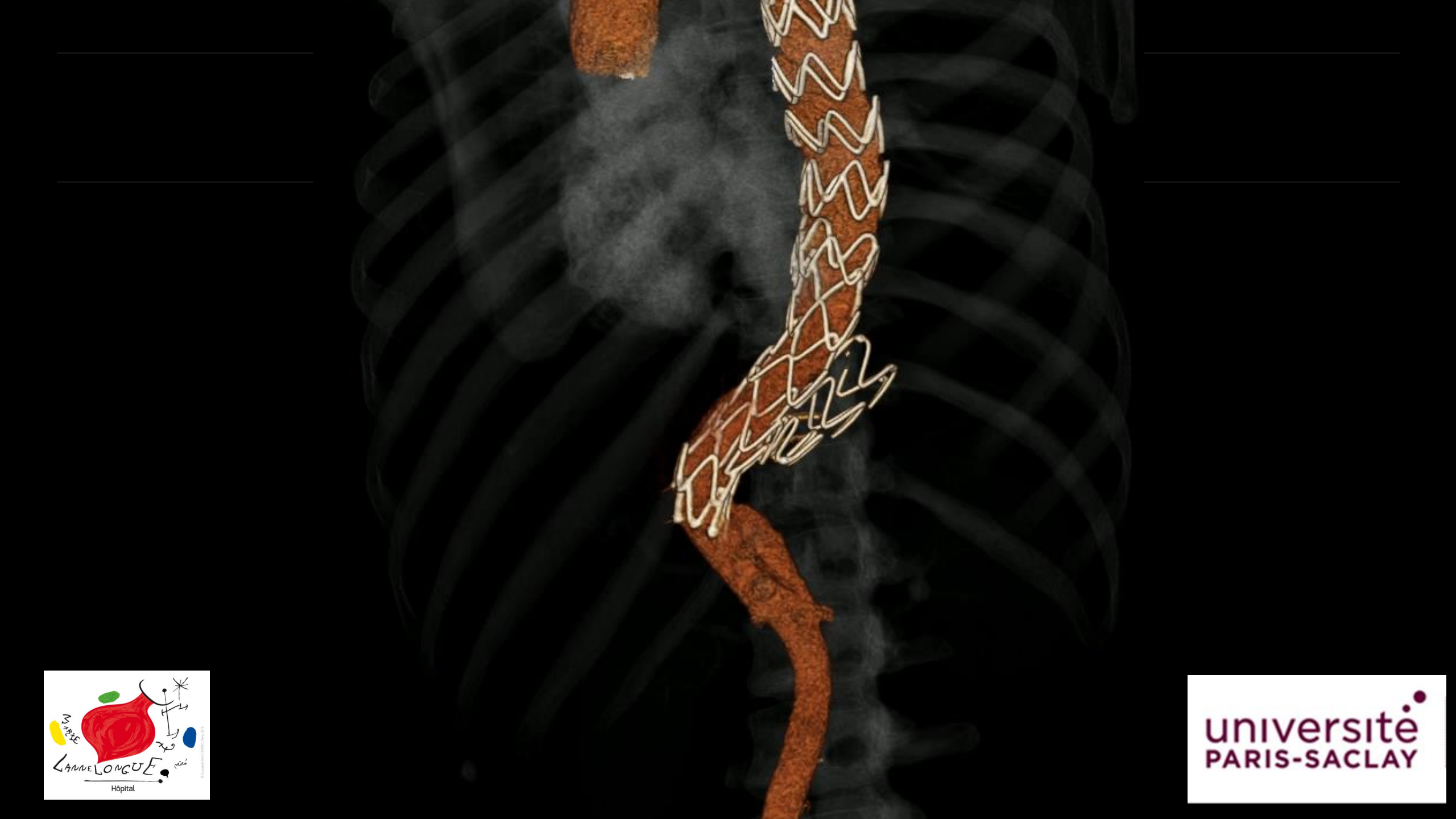


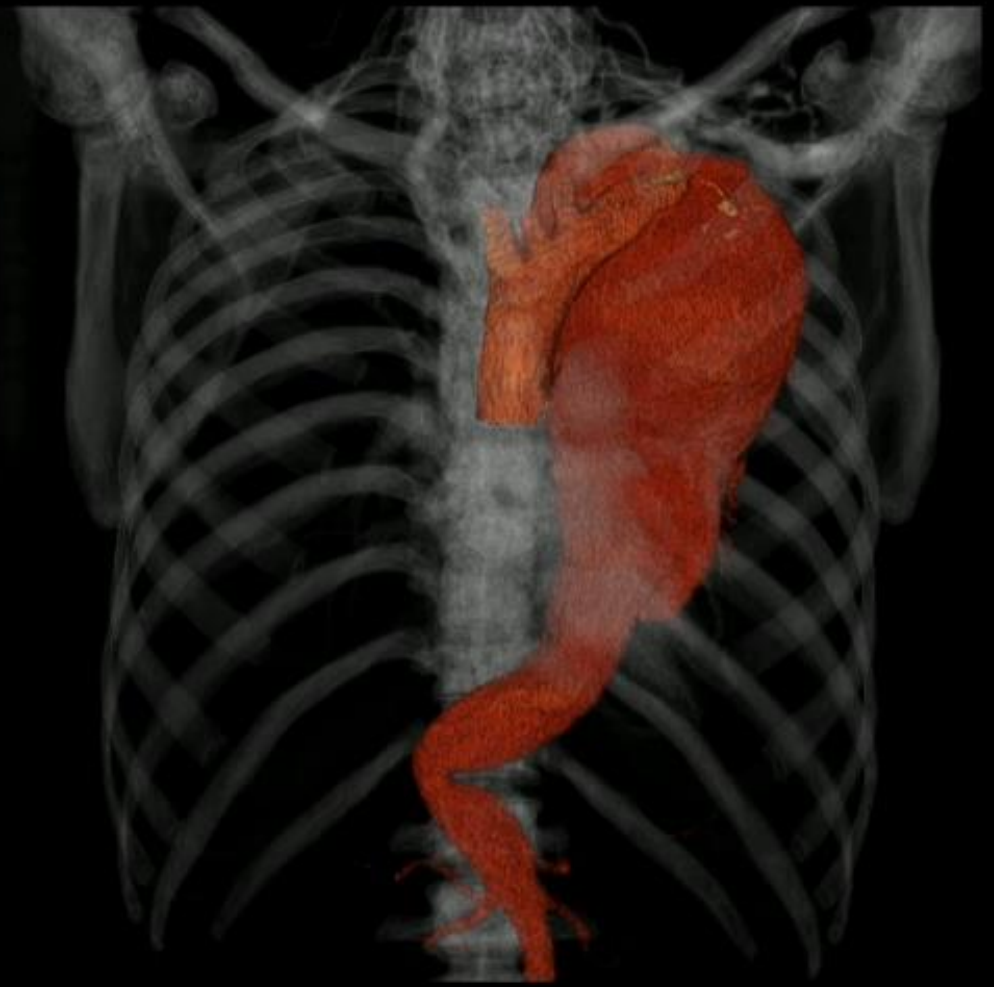
Left subclavian artery transposition to left carotid artery with vertebral reimplantation

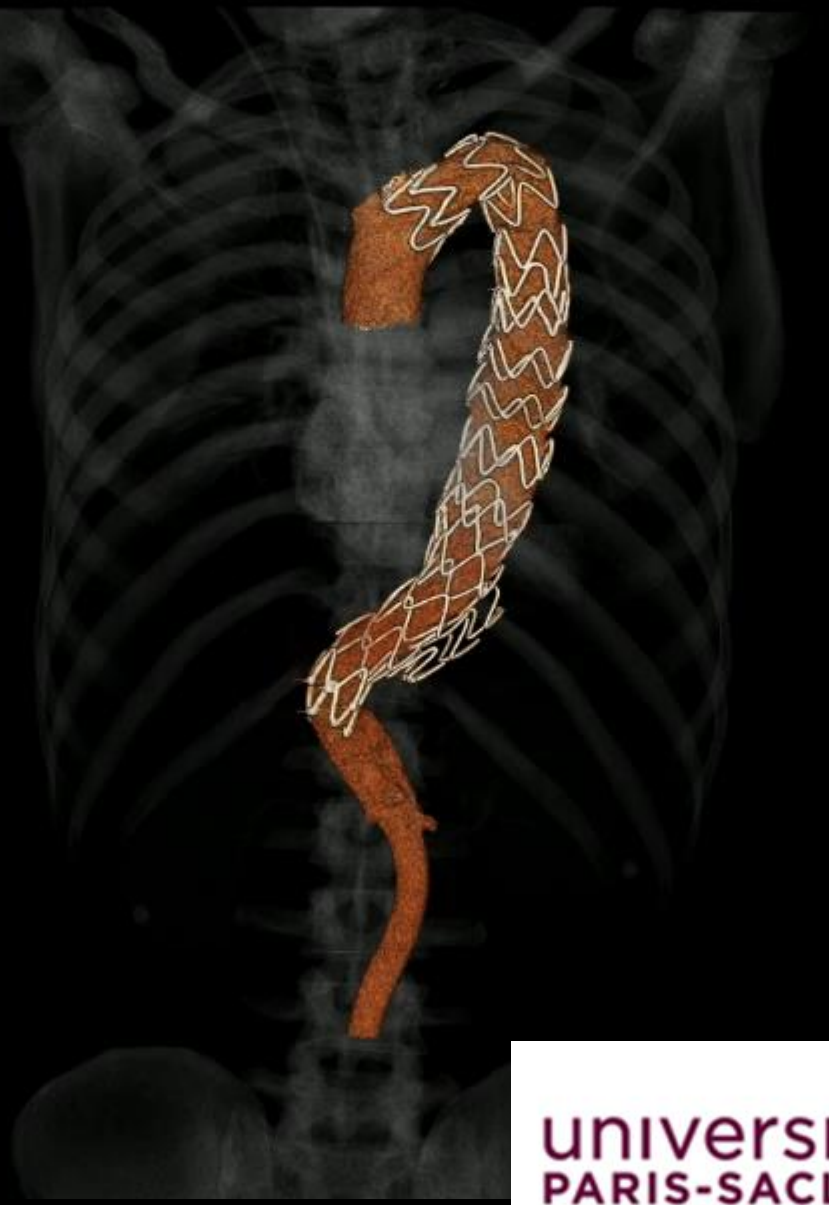


TEVAR under fusion guidance

False lumen occluder (candy plug)







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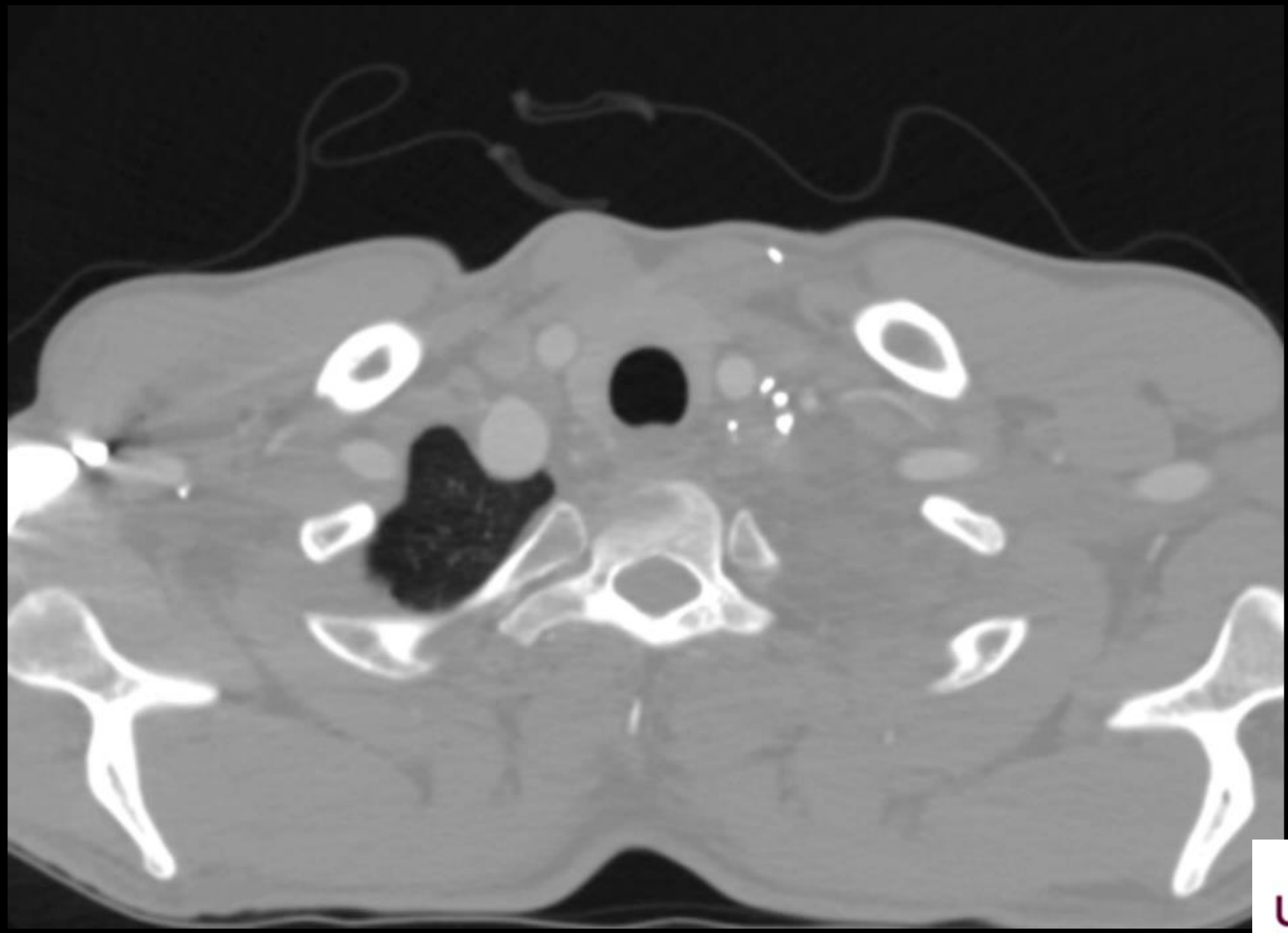

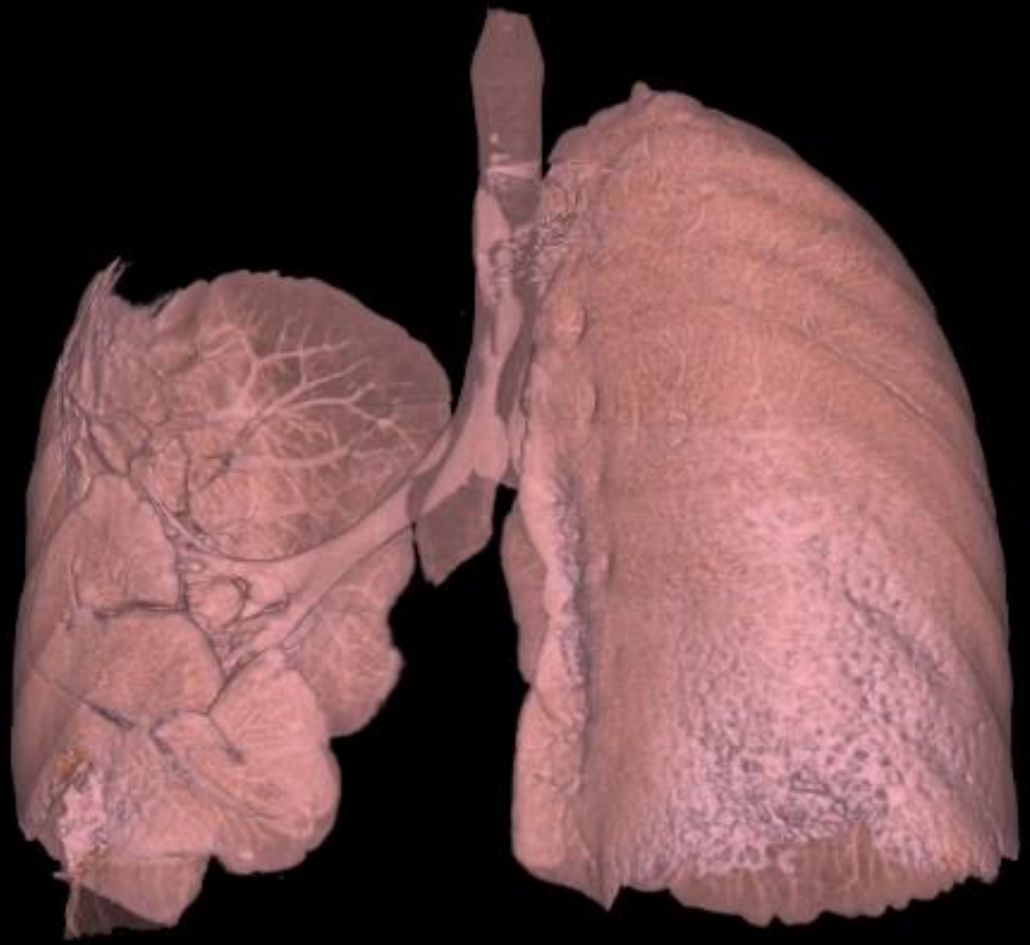

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Follow up

No sac retraction

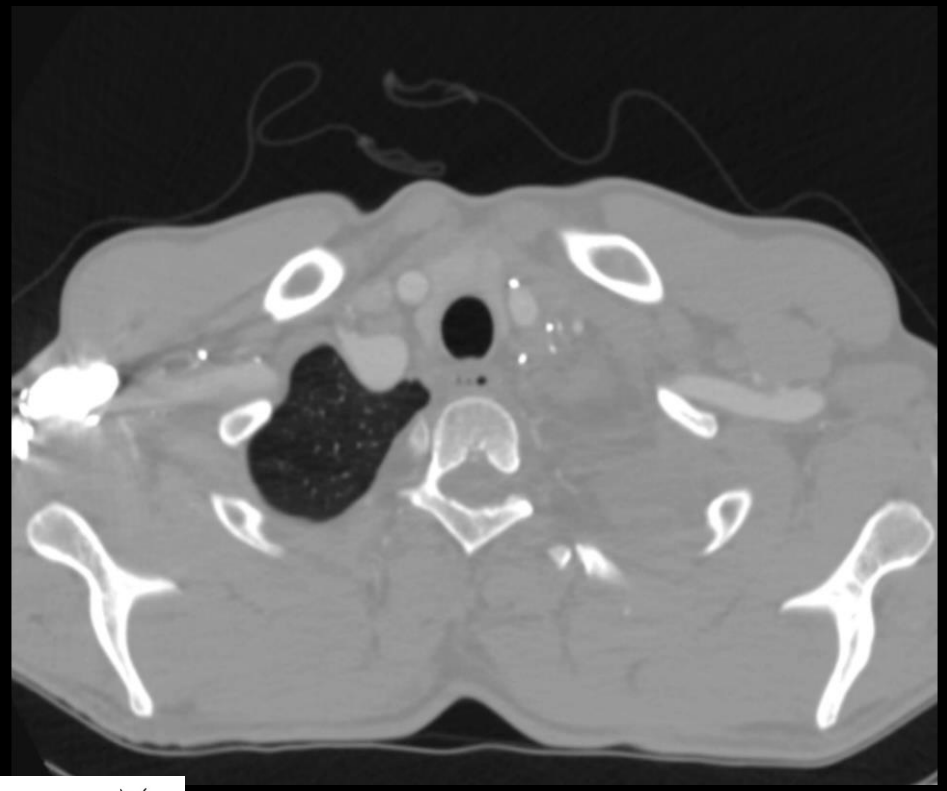
Type 2 endoleak

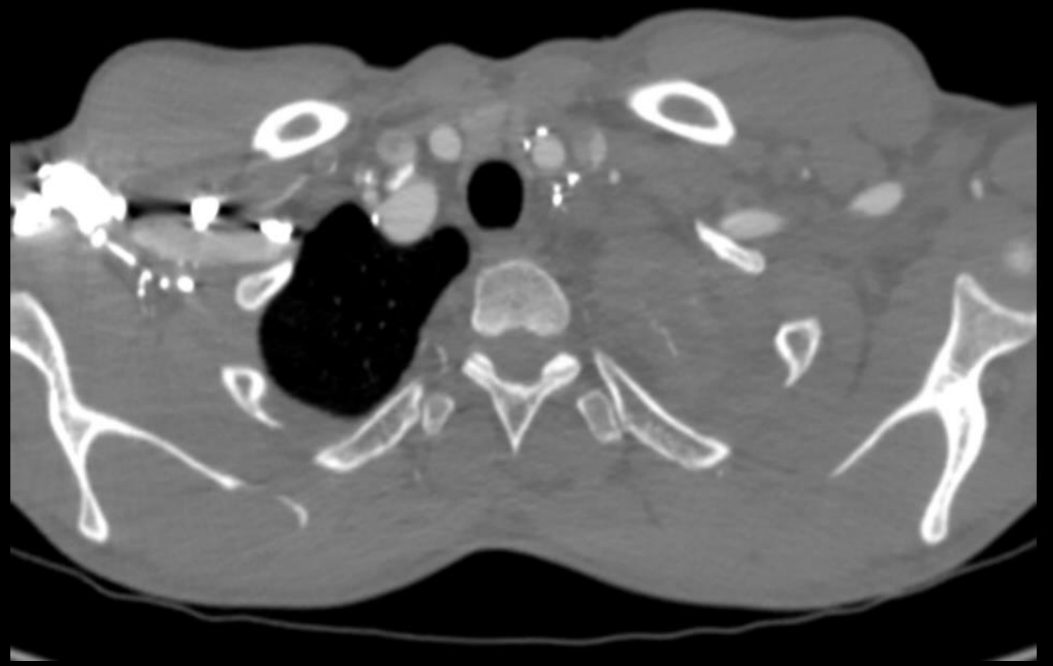
Massive pulmonary compression

High risk of aorto-bronchic fistula

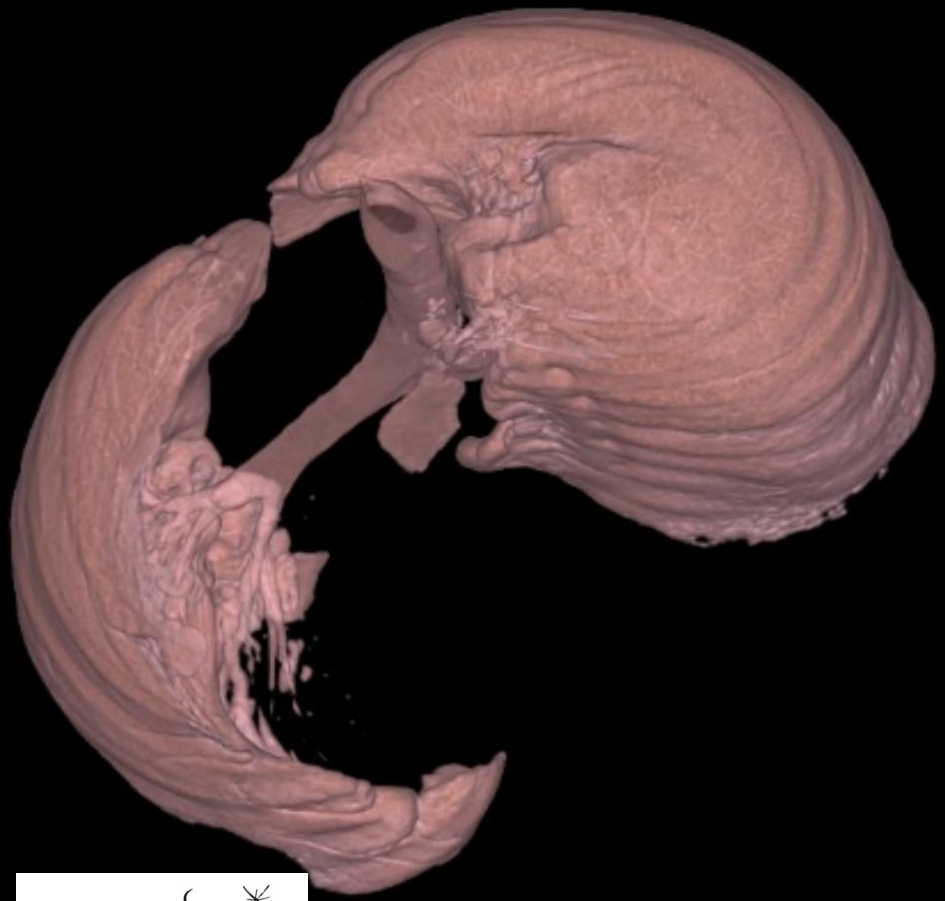
Young patient

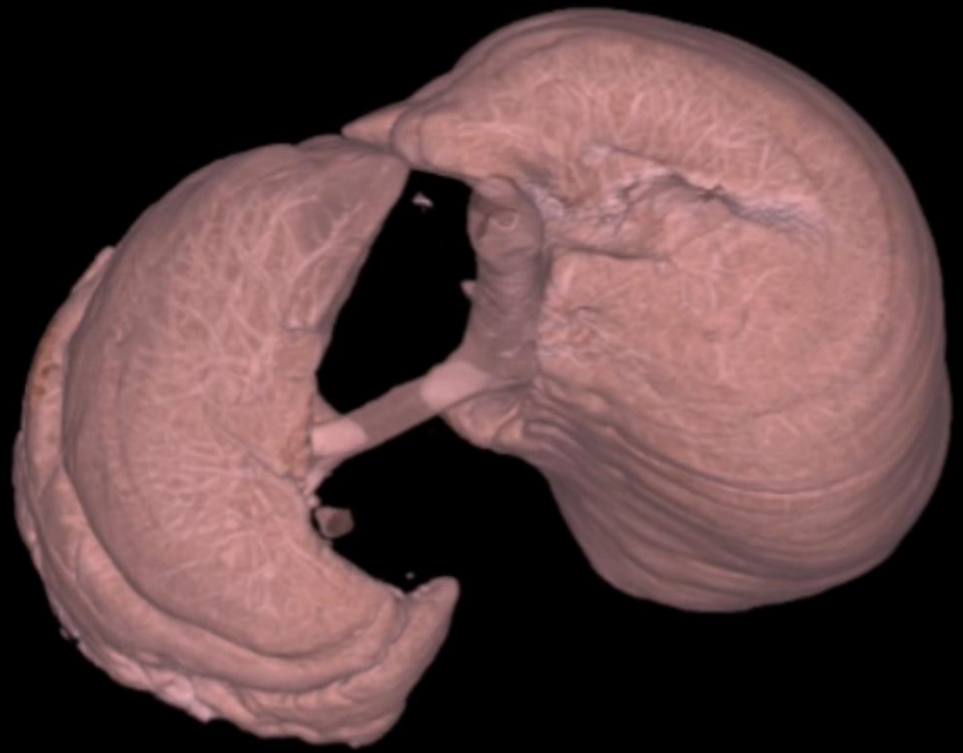
Post operative course





Left lung Re-Expansion





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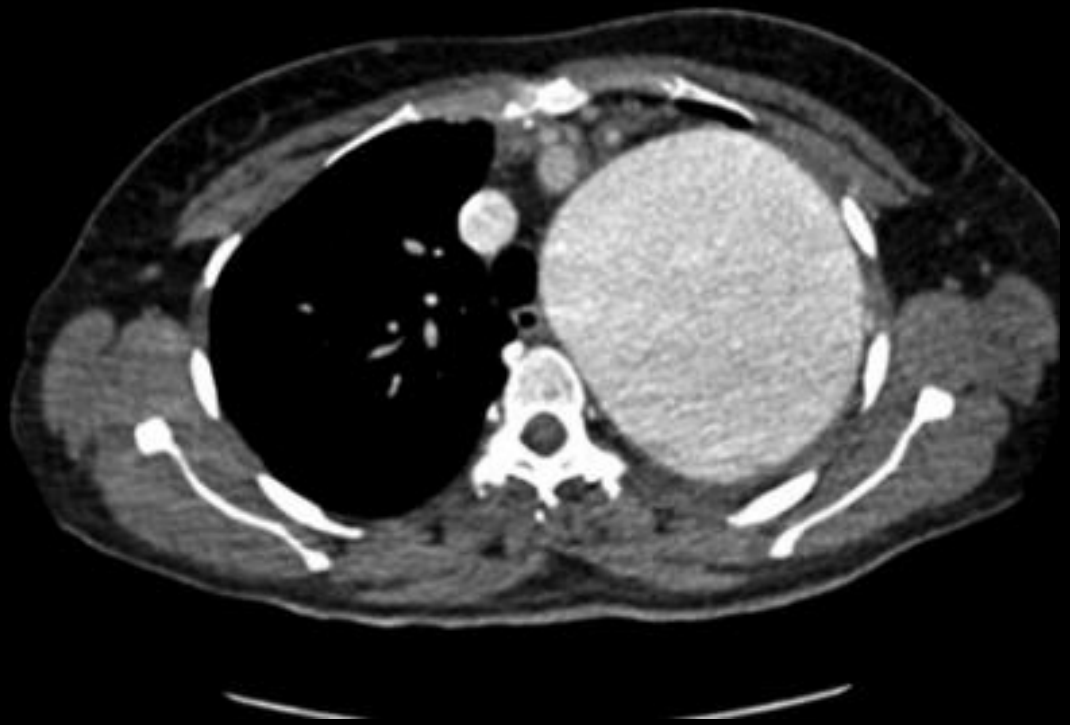
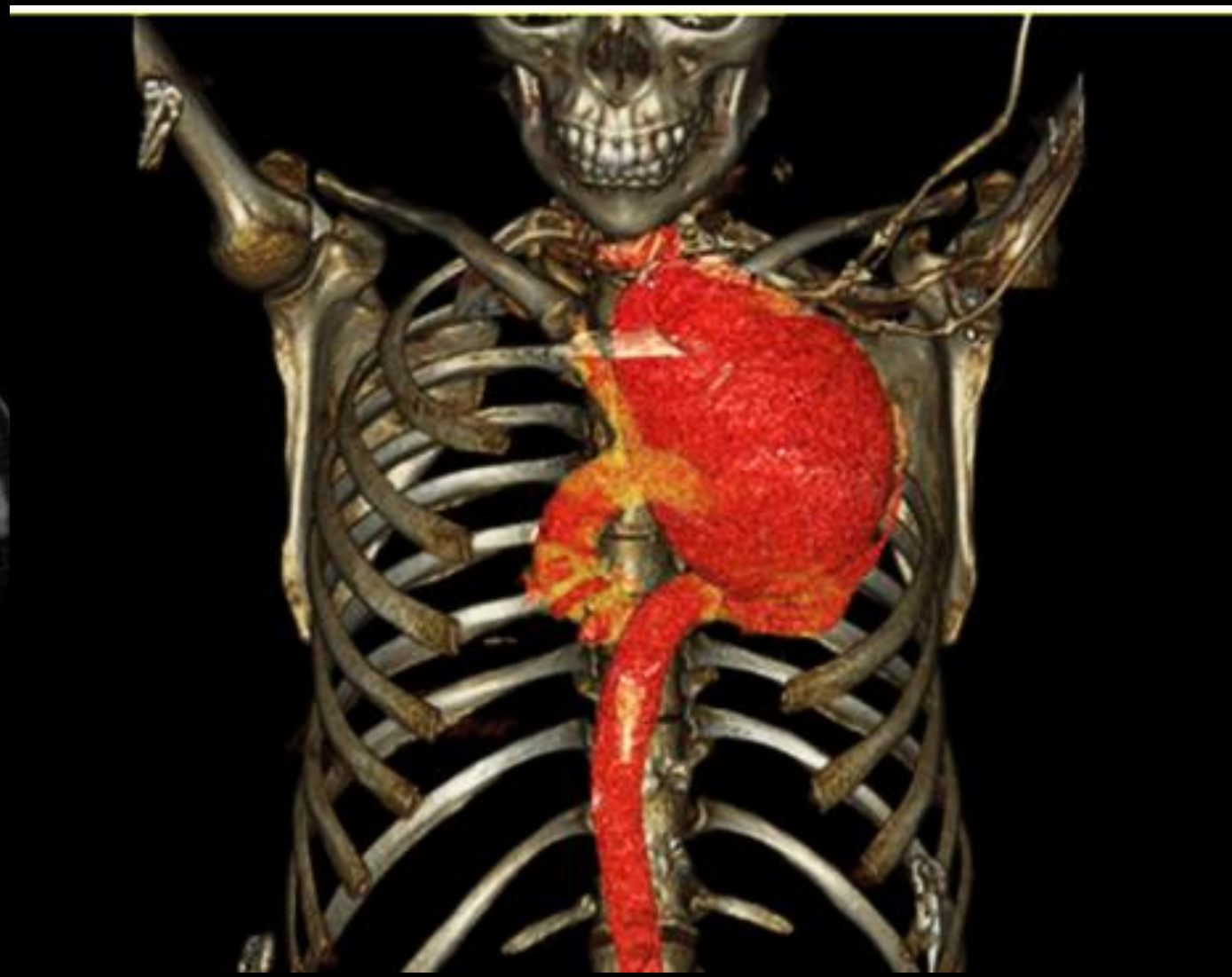
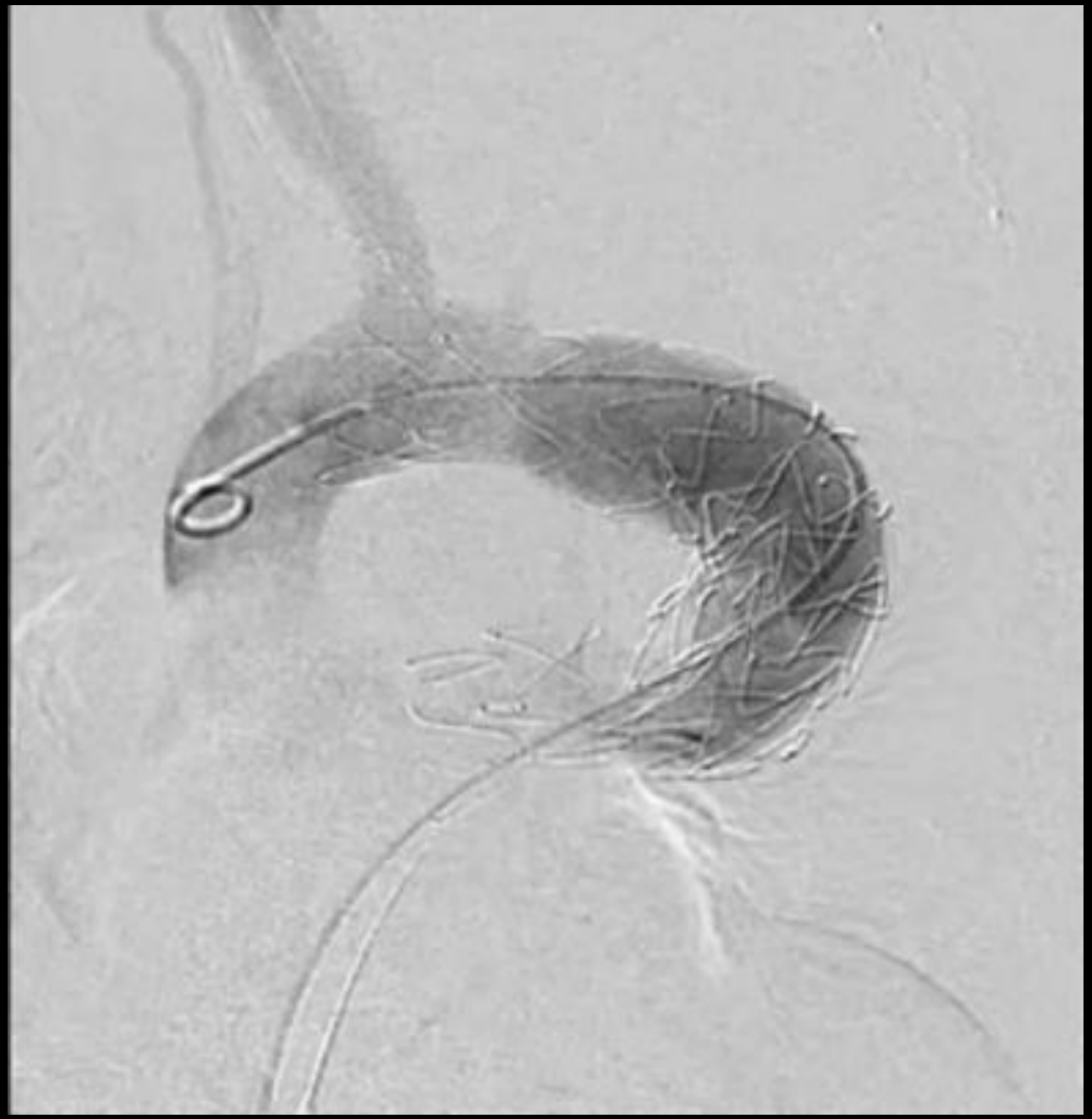
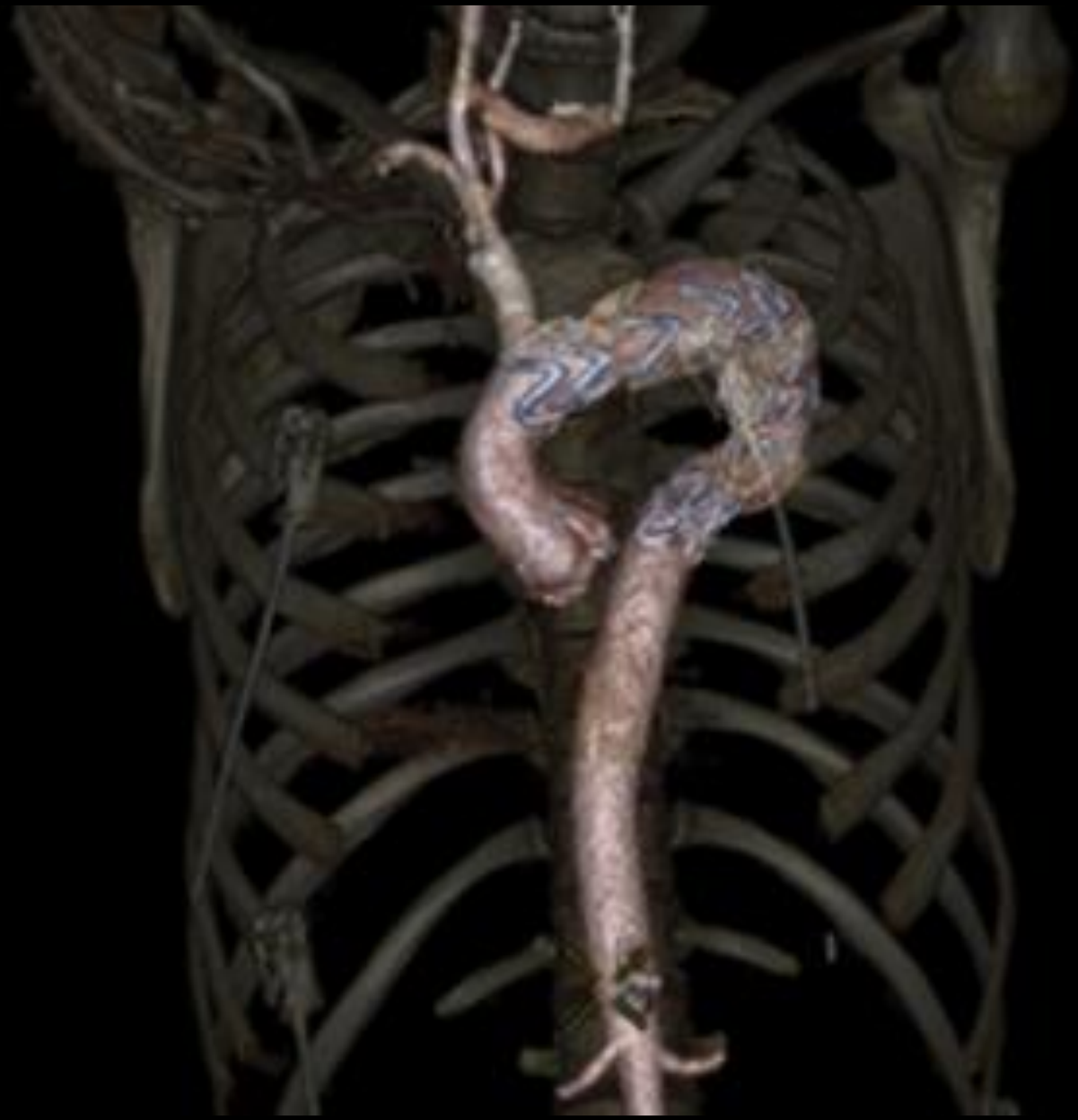
Large Aneurysm

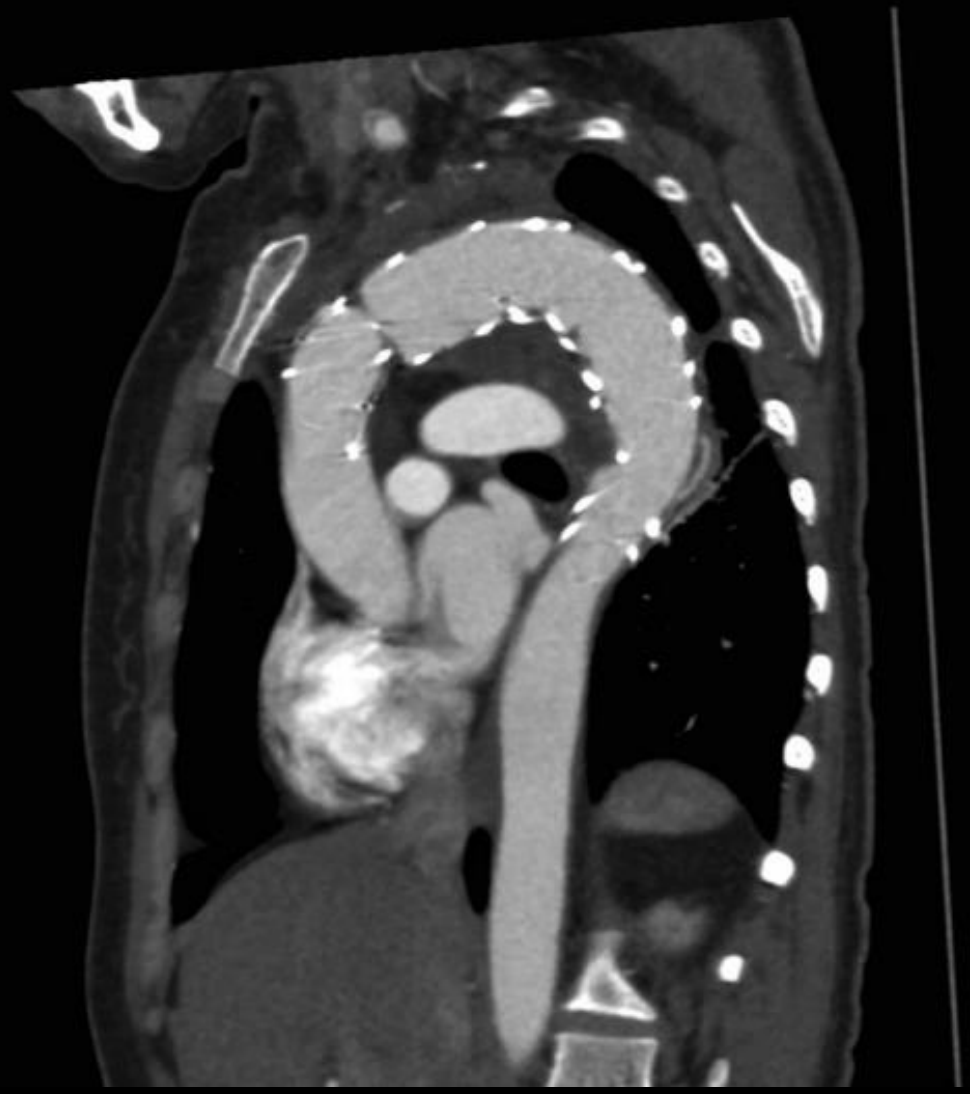




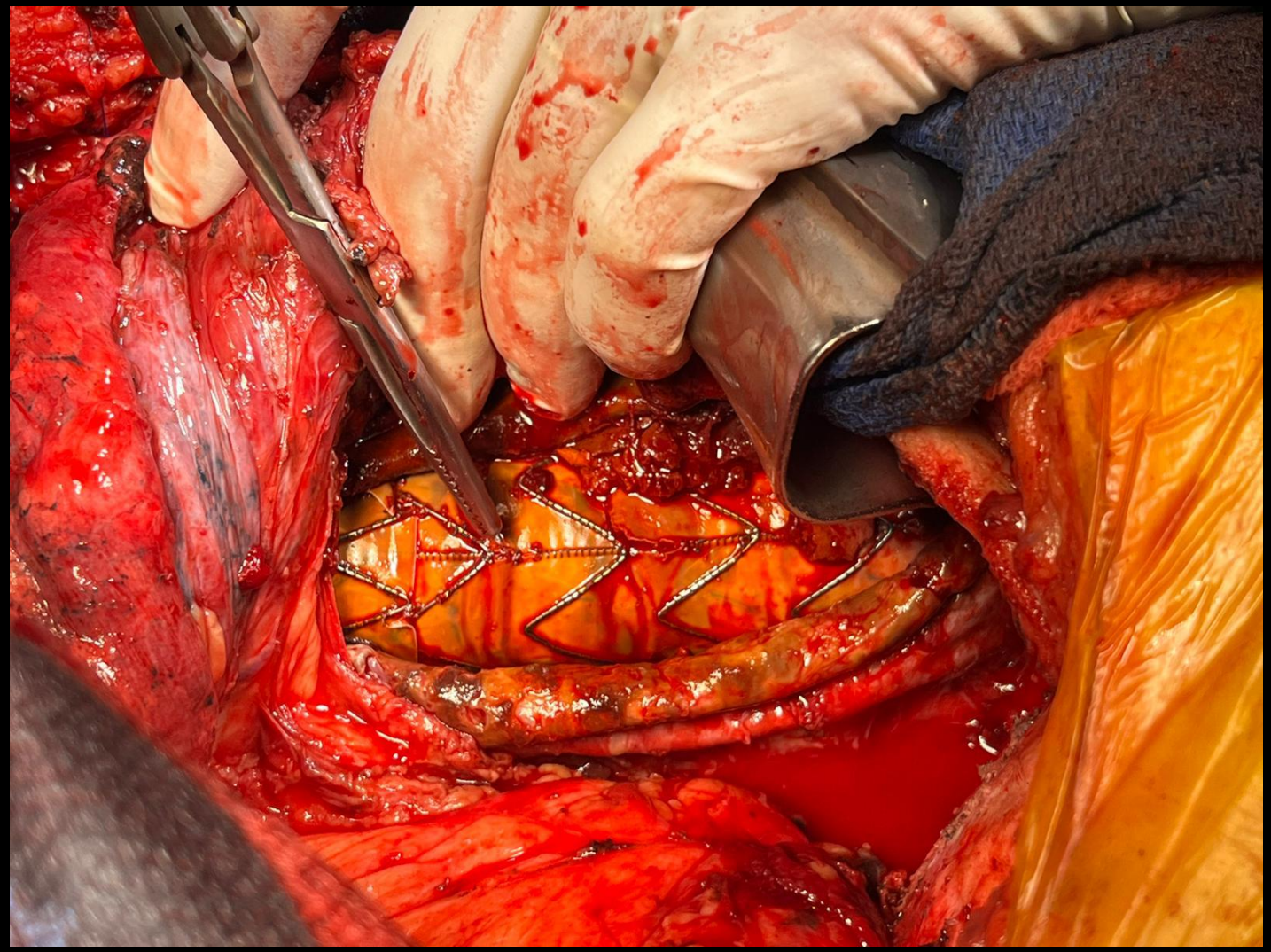




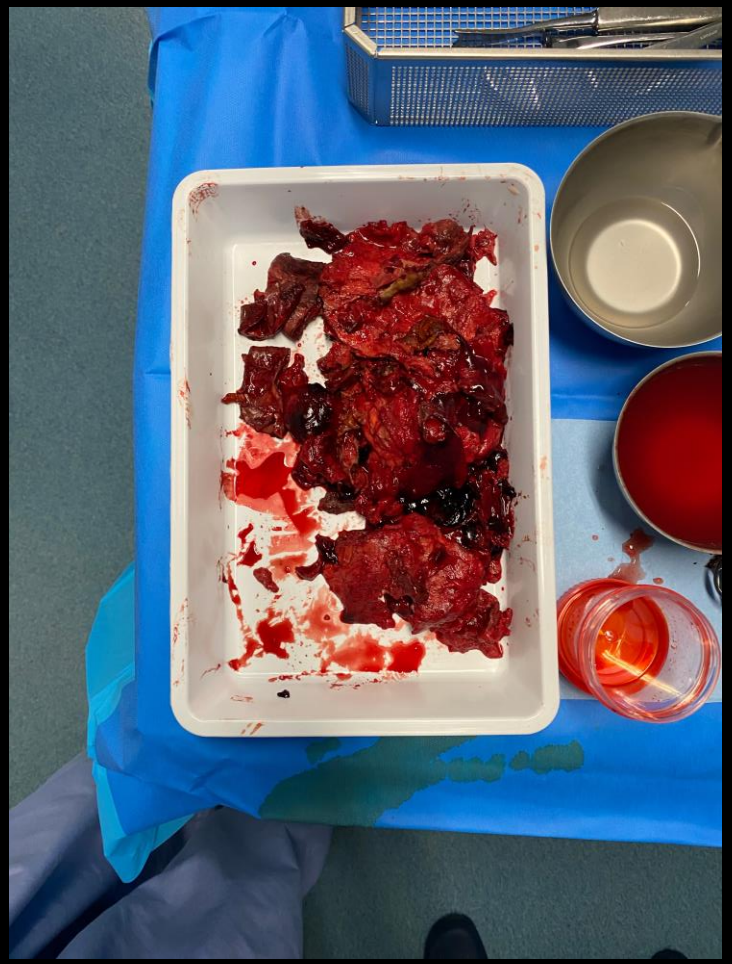
Post op CT SCAN after OA



Type III EL Risk = Re TEVAR before OA



Positive Bacteriology / Negative PET CT



Thoracic Aneurysmorraphy experience after TEVAR

- 11 cases / 2019-2024
- Mean size Thoracic Aneurysm **102 mm** (71 to 140 mm)
- 10 successfull results
- 1 sac reexpansion at 3 years in a Marfan patient
- no post op death

Conclusion

- OA should be discussed:
  - for major sac expansion after TEVAR
  - patients unfit to aortic clamping
- it is a usefull solution required for selected patients to improve the long term results for young patients

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