



VEITH SYMPOSIUM
Connecting The Vascular Community





New Strategies and Indications for Open TAAA Repair for Failed EVAR and F/B/EVAR: Technical tips and results

Andrea Kahlberg
Associate Professor of Vascular Surgery
Vita-Salute University, San Raffaele Scientific Institute
Milano, Italy

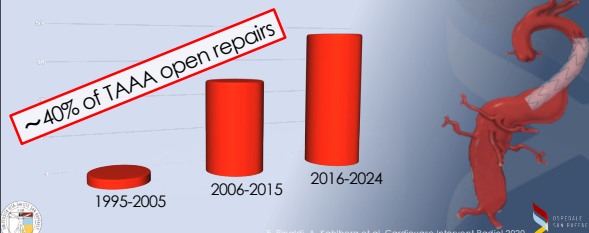



Disclosure

No conflicts of interest
related to this presentation


Open conversion after T/F/B-EVAR
San Raffaele experience 1995-2024: **125 pts**





~40% of TAAA open repairs

Period	Number of Patients
1995-2005	~5
2006-2015	~15
2016-2024	~105

1995-2005 2006-2015 2016-2024

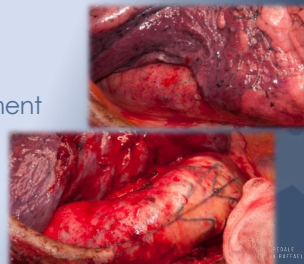




F. Rivzi, A. Kahlberg et al. Cardiovasc Intervent Radiol 2020

Open surgery after T/F/B-EVAR: problems

1. Pulmonary adhesions
2. Stent-graft management
3. Aortic wall frailty

1. Pulmonary adhesions

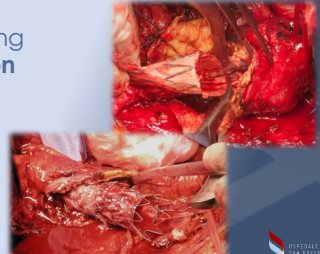


Cautious lysis
to avoid
pulmonary lesions





2. Stent-graft management

- Stent-graft clamping and **partial excision** (most cases)
- **Radical excision** if infection is suspected

3. Aortic wall frailty

Triple-layer suture


- Stent-graft
- Aortic wall
- Teflon felt



The image shows an intraoperative view of an aortic repair on the left, where a stent-graft is being secured to the aortic wall with sutures. On the right, a schematic diagram illustrates the triple-layer suture technique, showing a yellow stent-graft being sutured to a red aortic wall with a yellow Teflon felt reinforcement layer.

Open conversion after BEVAR for TAAA

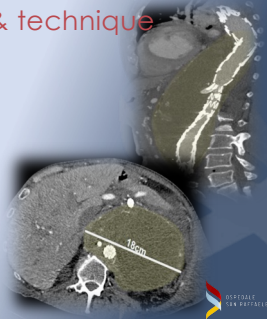
surgical technique



The image shows a surgical team performing an open conversion procedure in an operating room. The patient is lying on a table, and the surgical field is illuminated by overhead lights.

Open conversion case & technique


- 63 yo man, HT CMP
- 2016: BEVAR for 8-cm TAAA (LRA branch early occlusion)
- 2017-2019: multiple reinterventions (bridging stents relining)
- 2020: persistent EL Ic + aneurysm enlargement (14 > 18 cm)
- **Pain / fissuration**



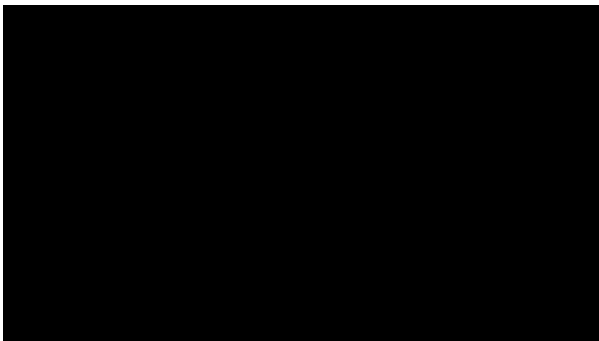
The image shows an axial CT scan of the thoracic aorta. A white line indicates the diameter of the aneurysm, which is labeled as 18 cm. The scan shows the aorta's position relative to the spine and other thoracic structures.

Open conversion case & technique

- 63 yo man, HT CMP
- 2016: BEVAR for 8-cm TAAA (LRA branch early occlusion)
- 2017-2019: multiple reinterventions (bridging stents relining)
- 2020: persistent EL Ic + aneurysm enlargement (14 > 18 cm)
- **Pain / fissuration**




The image shows an intraoperative view of the RRA stent link disconnection. A red dashed circle highlights the area where the stent link has disconnected from the main stent structure.



Uneventful postoperative course

CT scan at
2 years



This area is completely blacked out, likely to redact sensitive information.

Open conversions after F/B/T/EVAR 1995-2024

Perioperative outcomes		N = 125
Mortality		14 (11%)
Major morbidity		
Respiratory failure		27 (22%)
Renal failure		15 (12%)
Paraplegia		9 (7%)

Results depend on the cause of conversion

Disease related 30-d mortality 6% 5/80	Proximal endoleak / progression	(18)
	Distal endoleak / progression	(28)
	FL enlargement and SINE	(20)
	TAAA after FET (planned)	(14)
Stent-graft related 30-d mortality 20% 9/45	Endograft failure	(19)
	Infection / Fistula	(19)
	RAD	(7)

Conclusions

Open conversion after F/B/T/EVAR

- Technical challenge, tailored surgical strategies
- Increased mortality in case of graft failure, retrograde dissection, and infection/fistula
- Need of centralization in High Volume Centers

**STRATEGIC ROLE OF OPEN SURGERY
TEACHING PROGRAMS**

YOU'RE INVITED!



AORTIC SURGERY
PERIPHERAL & VENOUS
HTDI 2024
HOW TO DO IT

DECEMBER 11th - 13th, 2024