

CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE
CONTROVERSIES & UPDATES IN VASCULAR SURGERY

JANUARY 25-27 2018 

MARRIOTT RIVE GAUCHE & CONFERENCE CENTER, PARIS, FRANCE

**How to manage the chronic diseased aorta
distal to previous Type A dissection?**

Jean-Marc ALSAC

**ASSISTANCE
PUBLIQUE**  **HÔPITAUX
DE PARIS**

**Service de Chirurgie Cardiaque et Vasculaire
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Université Paris Descartes, Paris 5
Paris - France**

 **UNIVERSITÉ
PARIS DESCARTES**



Disclosure

Speaker name:

Jean-Marc ALSAC

I have the following potential conflicts of interest to report:

Proctor for educational training : GORE Medical

Proctor for educational training : BOLTON / VASCUTEK

Grant for educational training : COOK Medical

Long Term Follow-up of Type A ?

Risk Factors for Descending Aortic Aneurysm Formation in Medium-Term Follow-up of Patients With Type A Aortic Dissection* CHEST 2003

Chi-Hsiao Yeh, MD; Min-Chi Chen, PhD; Yi-Cheng Wu, MD;
Yao-Chang Wang, MD; Jaw-Ji Chu, MD, FCCP; and Pyng Jing Lin, MD

Group	OR	p Value
Gender*	3.152	0.013
Initial descending aorta diameter	1.088	0.017

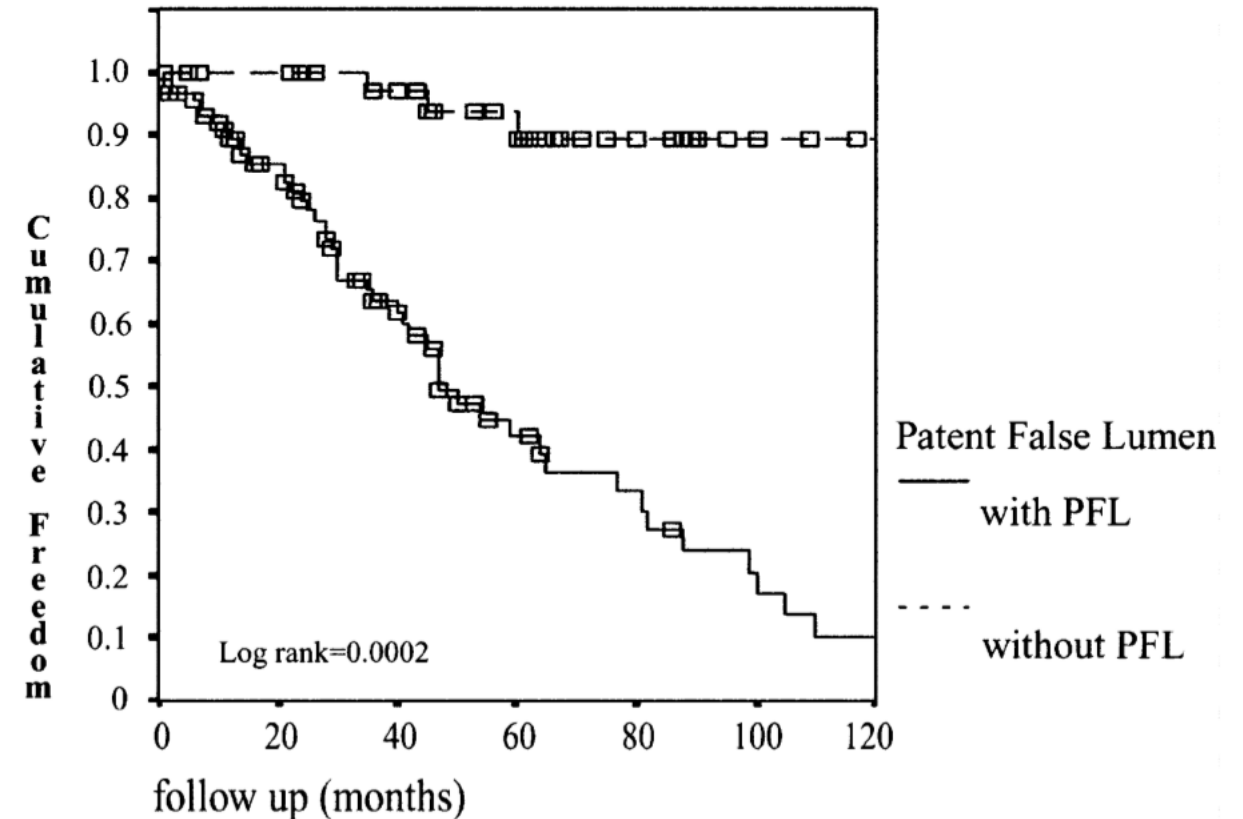


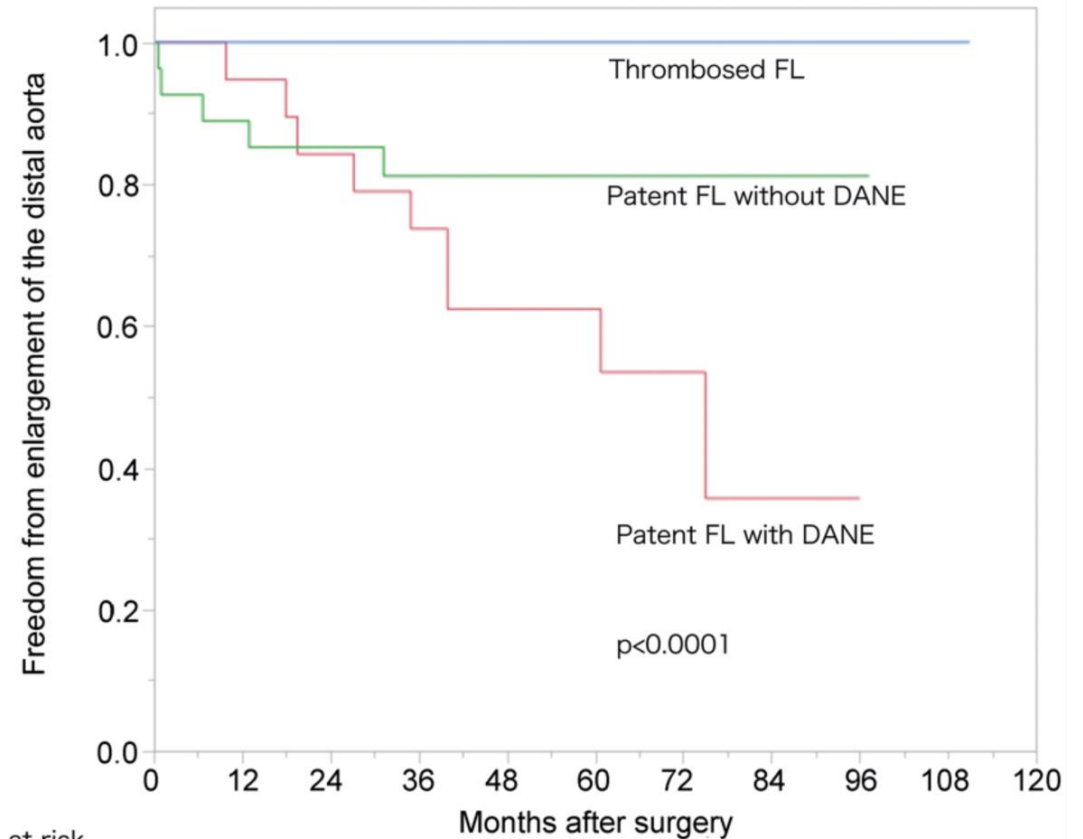
FIGURE 1. Cumulative freedom from descending aorta aneurysm formation or operation between patients with or without a patent false lumen (PFL).

Proximal Sealing in the arch

Eur J Cardiothorac Surg. 2017 Nov 1;52(5):867-873. doi: 10.1093/ejcts/ezx223.

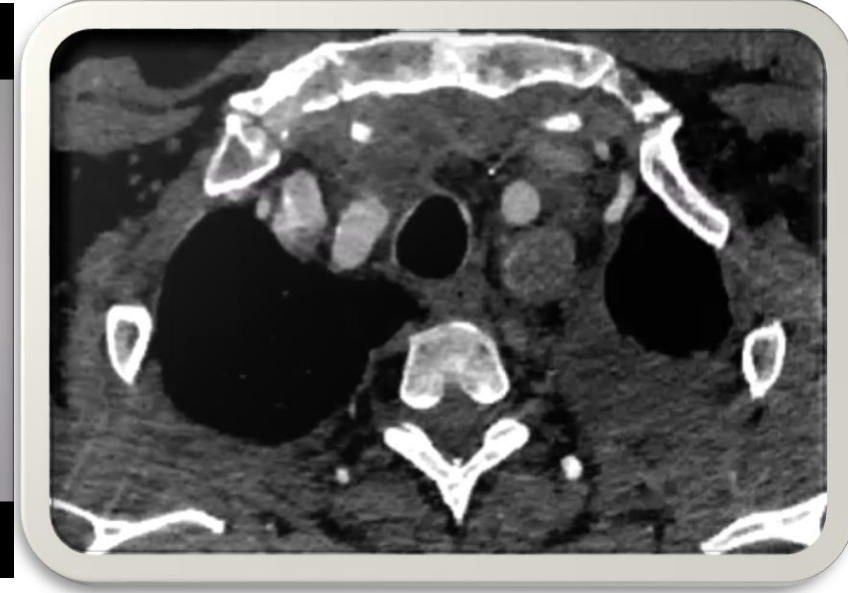
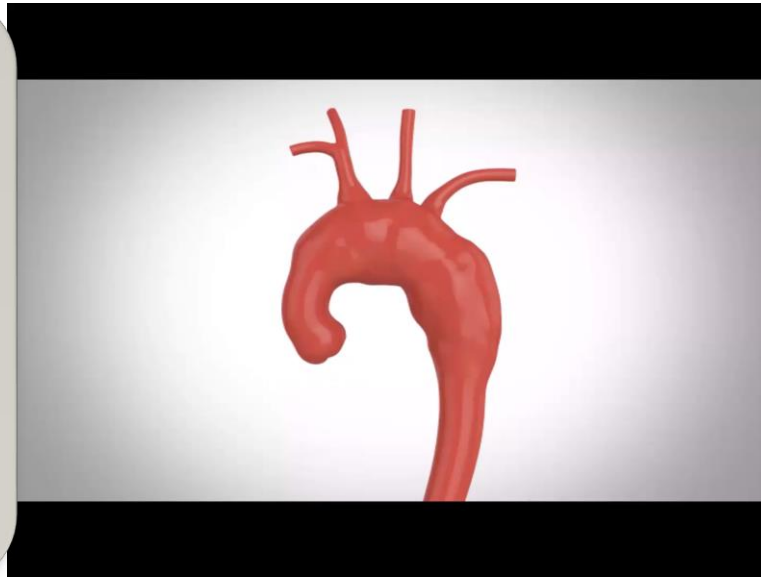
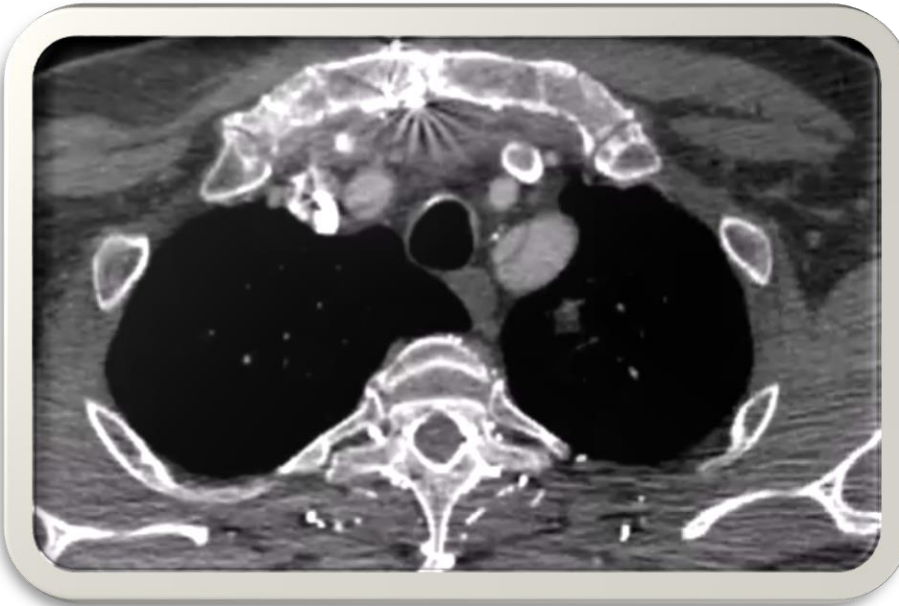
The prognostic impact of distal anastomotic new entry after acute type I aortic dissection repair.

Tamura K¹, Chikazawa G¹, Hiraoka A¹, Totsugawa T¹, Sakauchi T¹, Yoshitaka H¹.



Patients at risk								
Patent FL with DANE	19	17	15	11	8	4	3	2
Patent FL without DANE	25	22	19	15	8	7	5	2
Thrombosed FL	47	46	41	33	23	14	10	5

Hybrid Total Arch Replacement

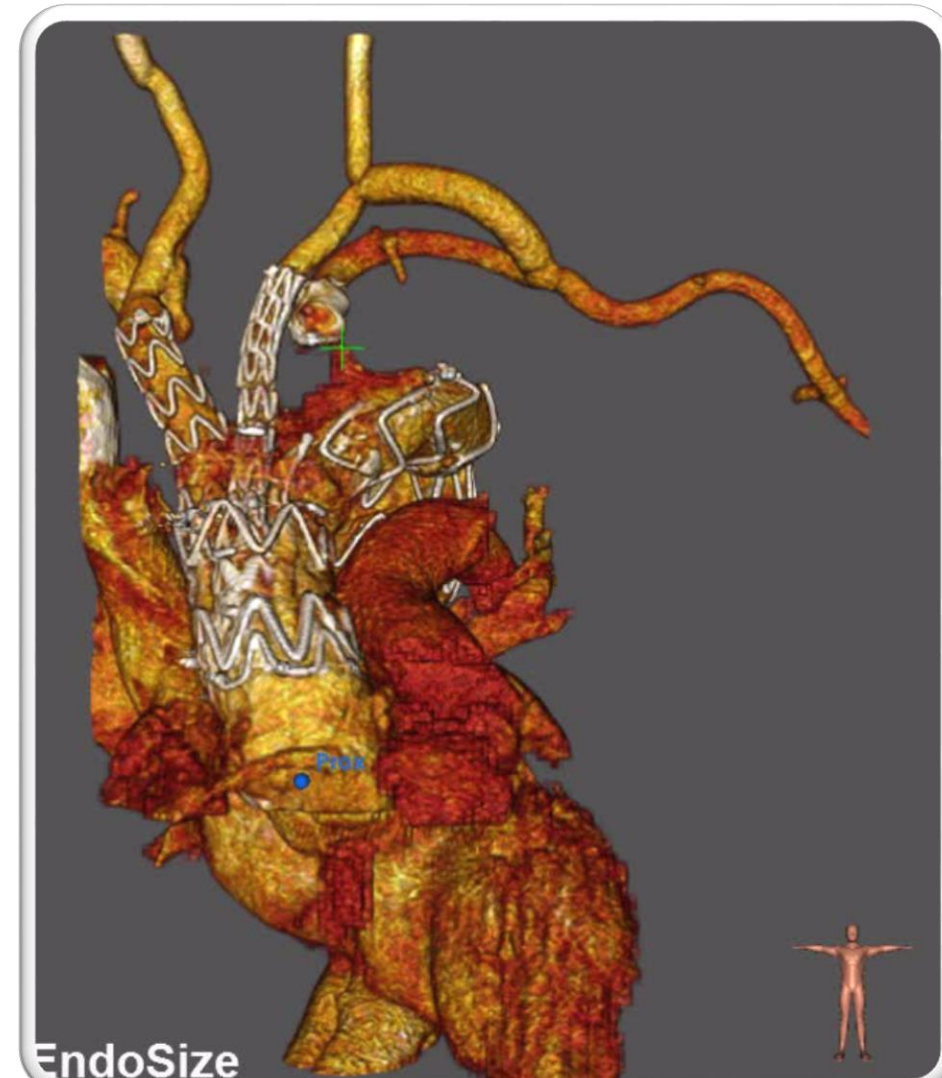


Double Branched Stentgraft



EndoSize

EndoSize

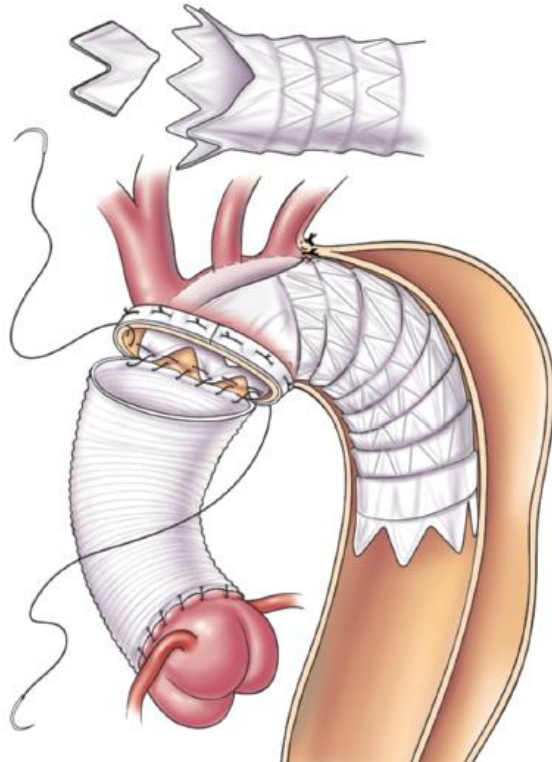


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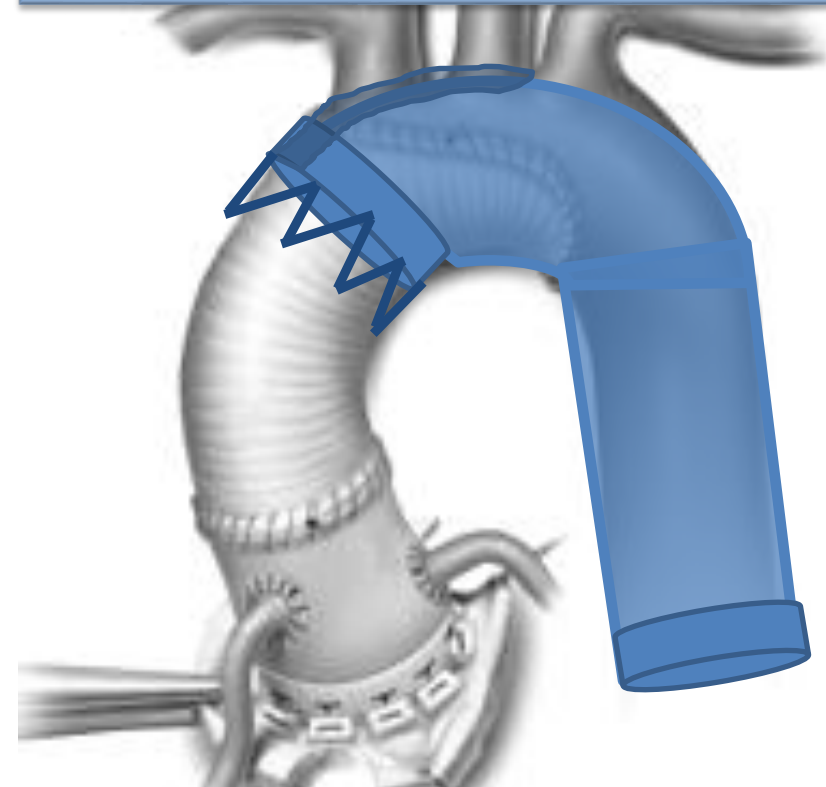
EndoSize

Proximal Scallop Stentgraft

- After Hemi-Arch Aortic Repair in Chronic Type A Dissections
- Especially with Aortic Valve Replacement



Reverse Endovascular
Hemiarch Repair

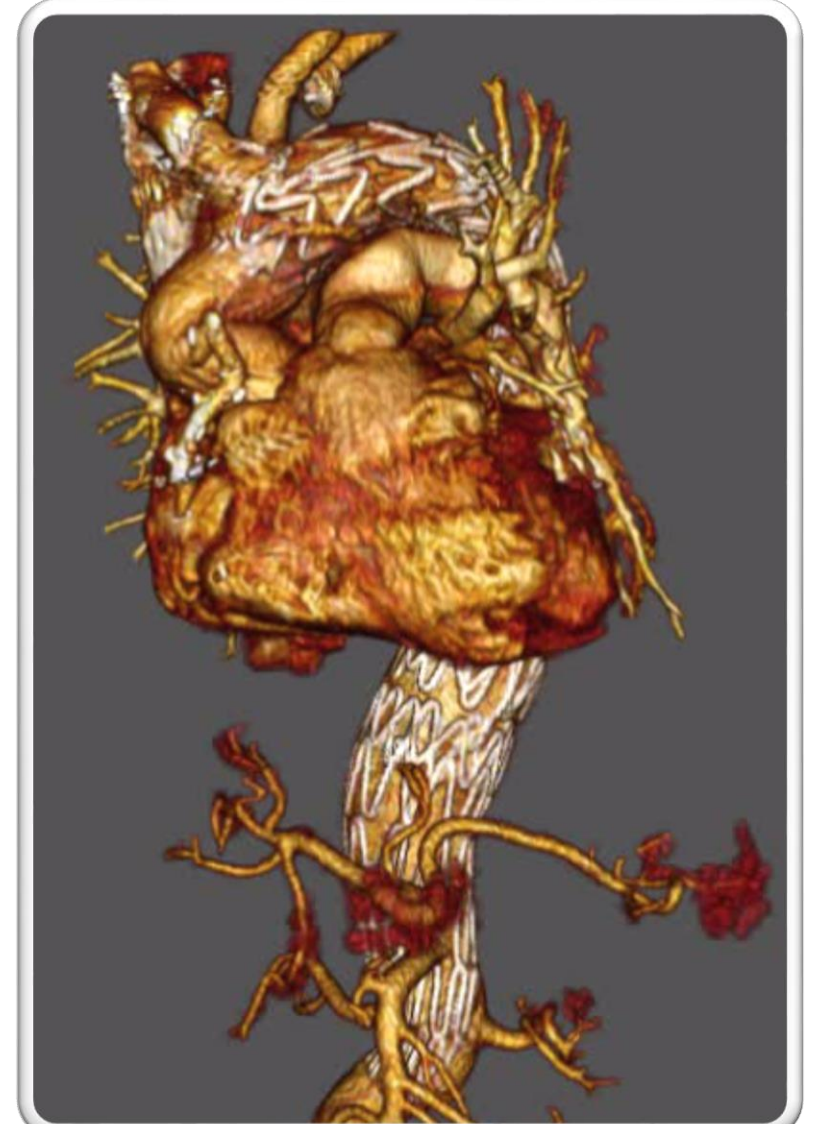
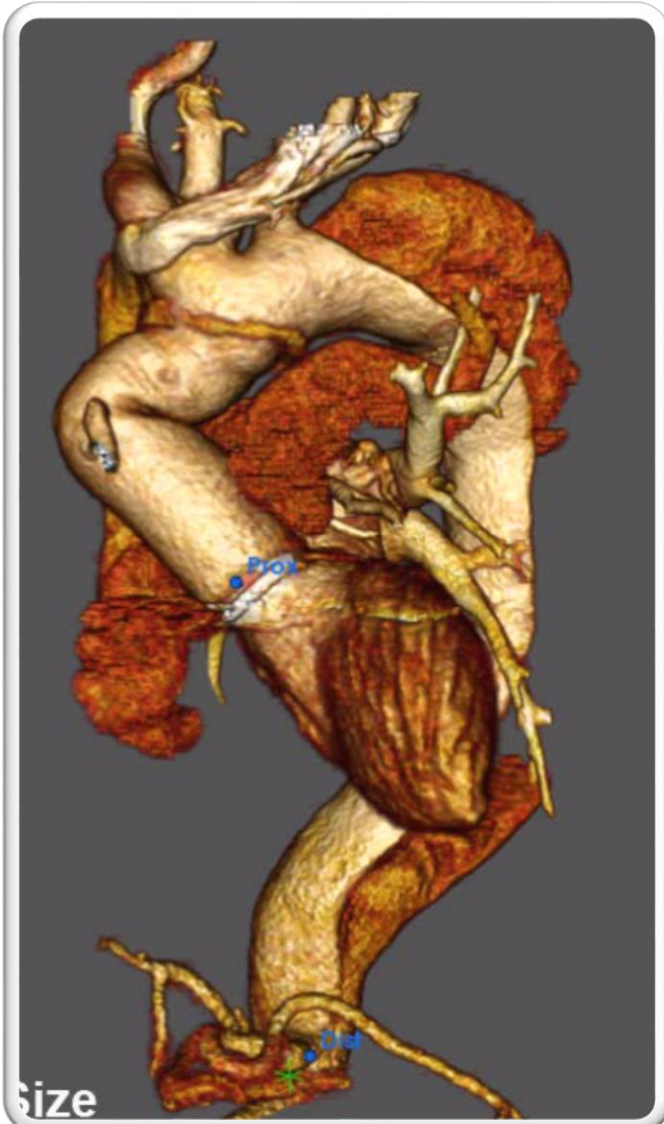


J Thorac Cardiovasc Surg. 2013 Mar;145(3 Suppl):S197-201. doi: 10.1016/j.jtcvs.2012.11.068. Epub 2012 Dec 20.

Simplified frozen elephant trunk repair for acute DeBakey type I dissection.

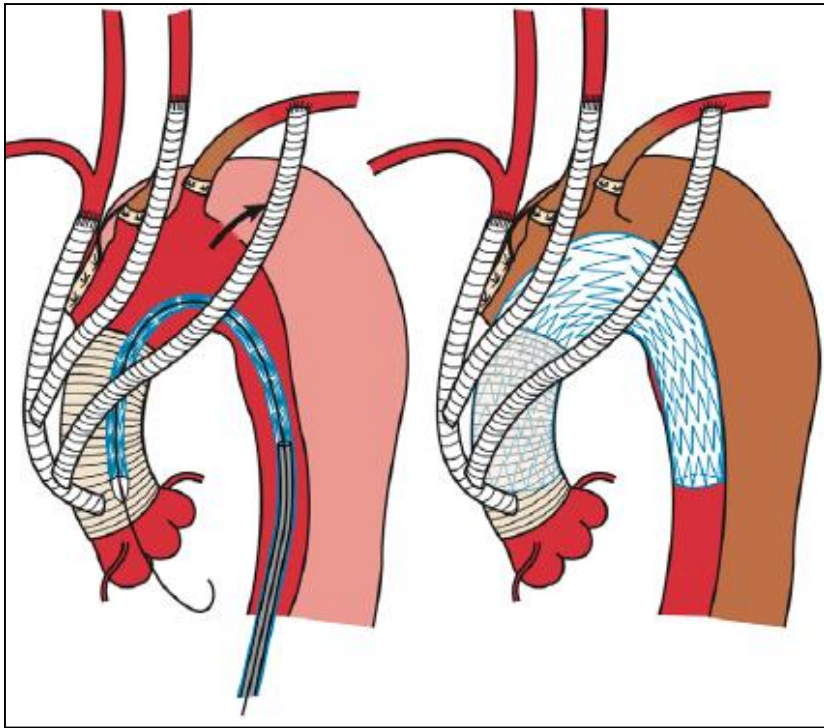
Roselli EE¹, Rafael A, Soltesz EG, Canale L, Lytle BW.

Proximal Scallop Stentgraft

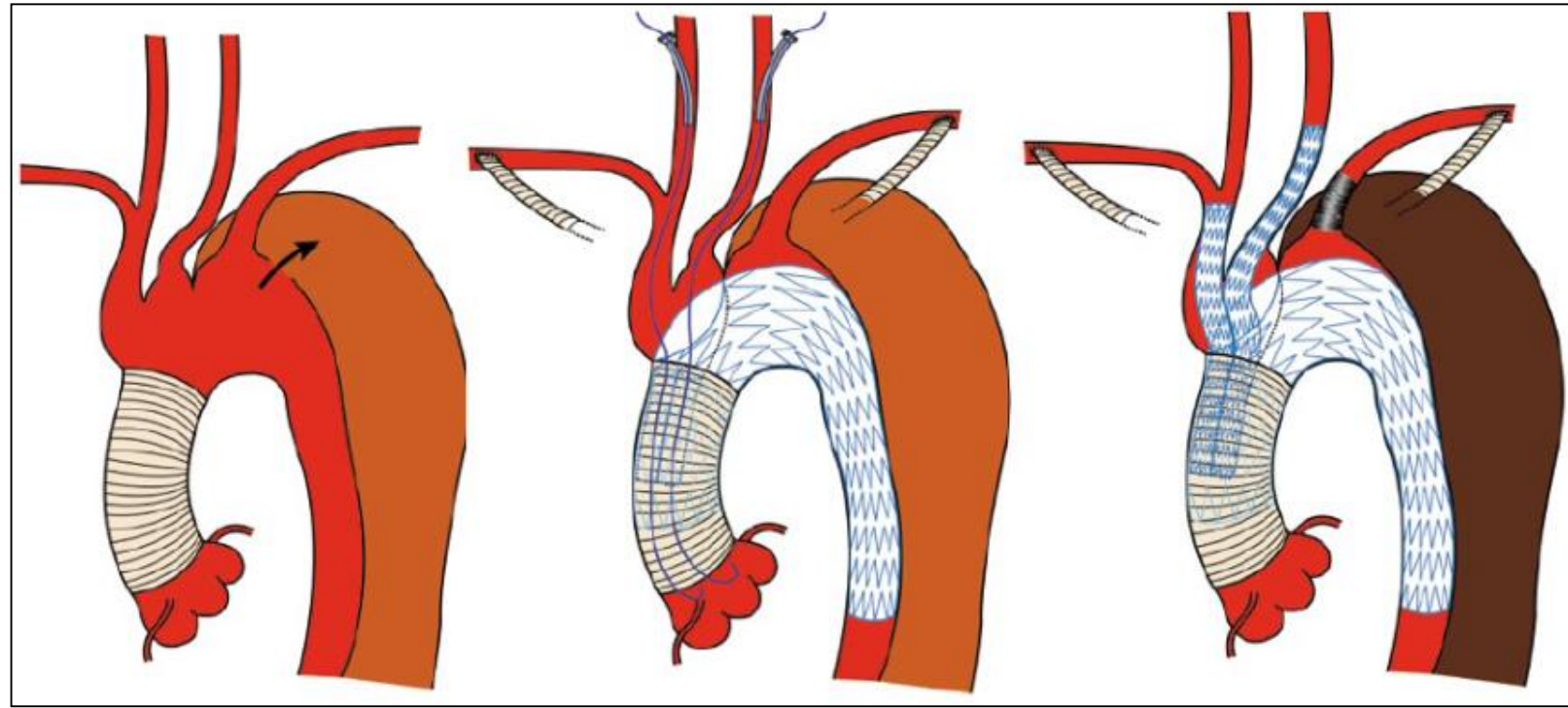


Many Other Technics ...

SAT Debranching

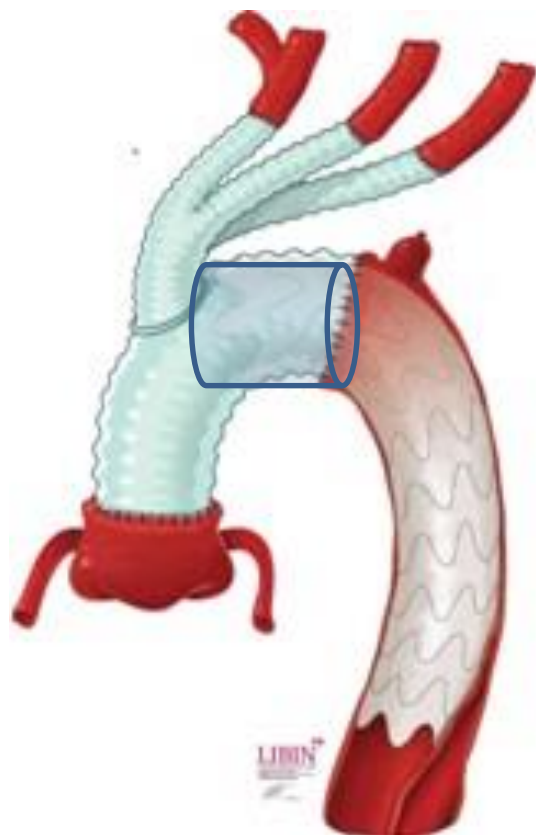


Chimneys / Parallel / Sandwichs





TEVAR on Prepared Landing Zone



How to Achieve Distal Sealing ?

Survival After Endovascular Therapy in Patients With Type B Aortic Dissection



A Report From the International Registry of Acute Aortic Dissection (IRAD)

JACC: CARDIOVASCULAR INTERVENTIONS, VOL. 6, NO. 8, 2013

AUGUST 2013:876-82

Table 5. Follow-Up Outcomes: Kaplan-Meier Estimates

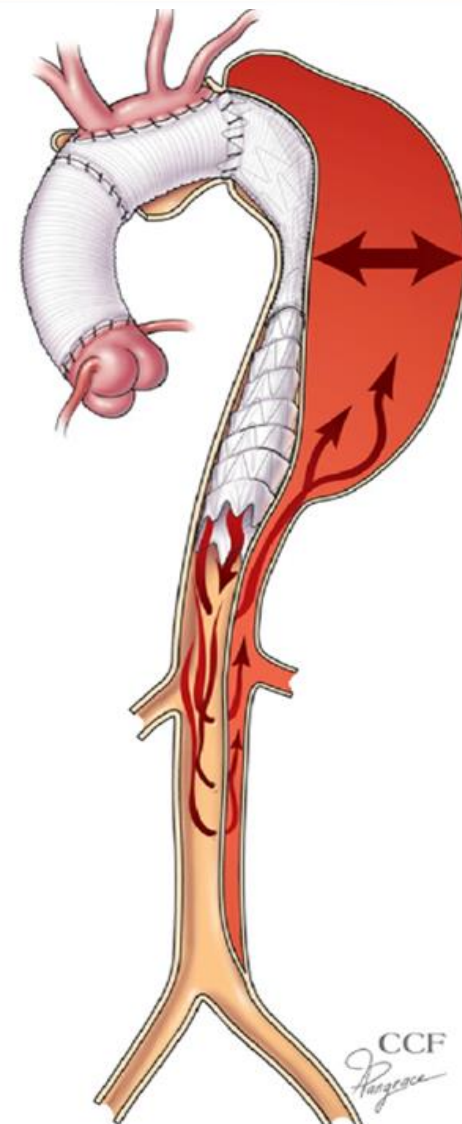
	Medical (Cumulative %)	Endovascular (Cumulative %)	p Value
Freedom from aortic growth or new aneurysm			
1 yr	86.6 (254)	81.5 (73)	0.822
2 yrs	74.9 (155)	72.5 (44)	
3 yrs	65.5 (95)	60.0 (28)	
4 yrs	53.4 (69)	56.0 (14)	
5 yrs	26.7 (45)	37.3 (8)	

$\frac{1}{4}$ at 2 years

$\frac{1}{3}$ at 3 years

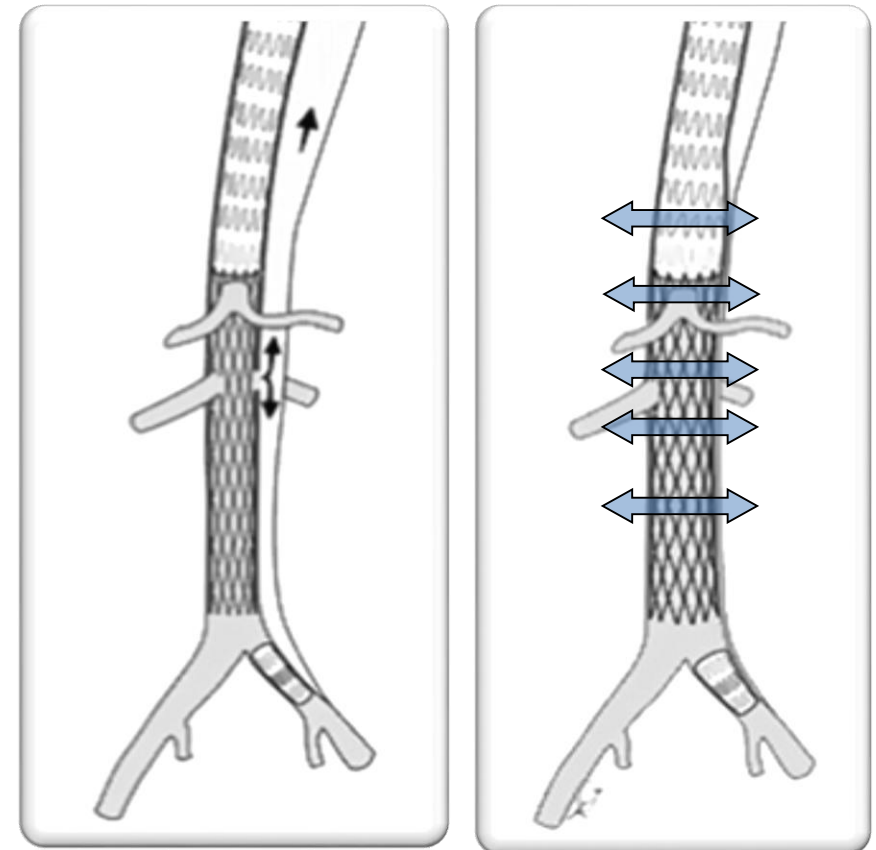
$\frac{1}{2}$ at 4 years

$\frac{2}{3}$ at 5 years



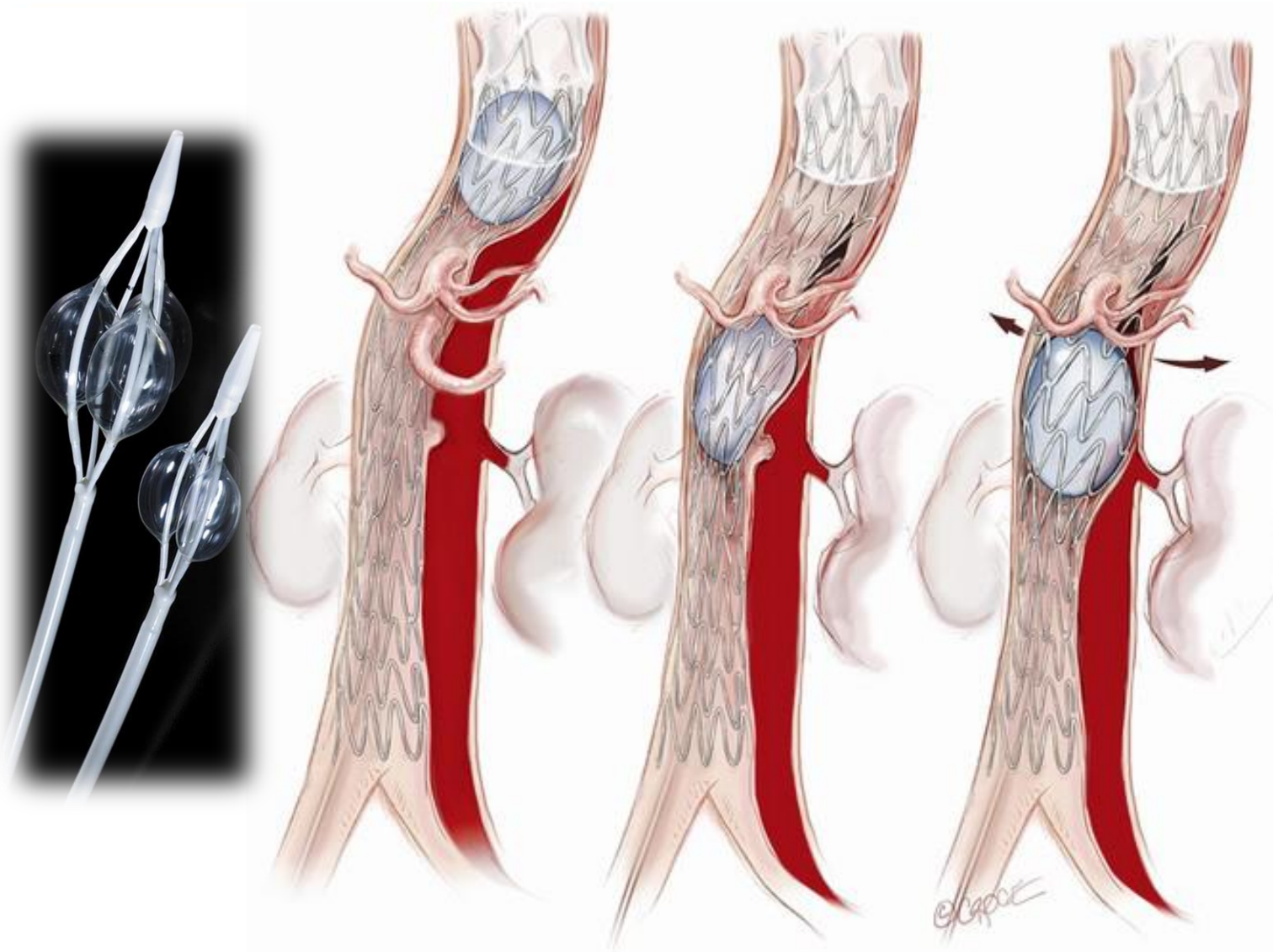
Stent-Assisted Balloon-Induced Intimal Disruption and Relamination in Aortic Dissection Repair: The STABILISE concept JTCS 2014

- Adapted Sizing Distal Stentgraft / Bare Stent
- Diameter of the Distal Descending ≤ 42 mm
- Stiffness of the Intimal Flap ???

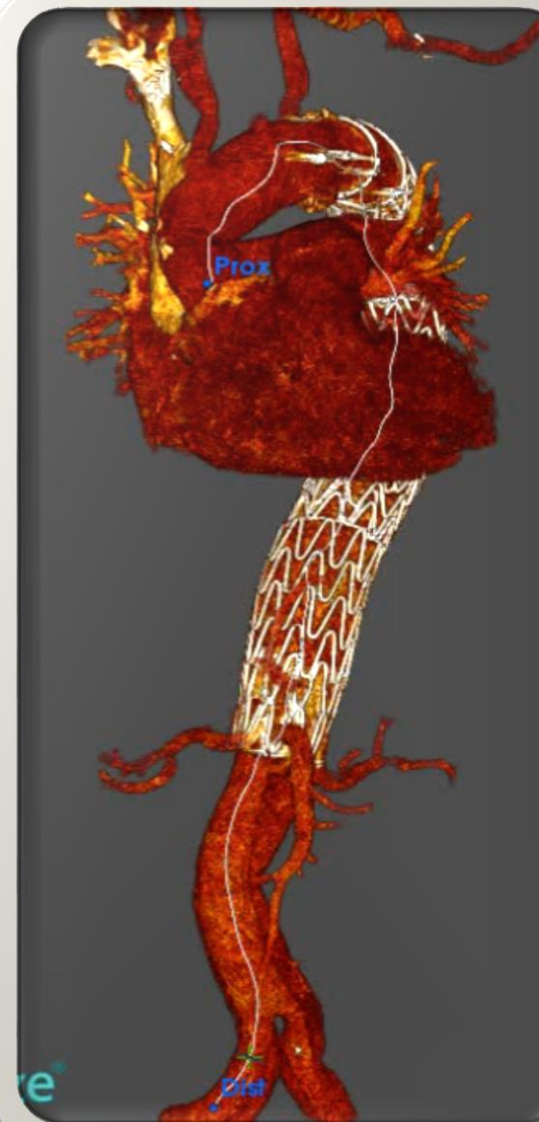
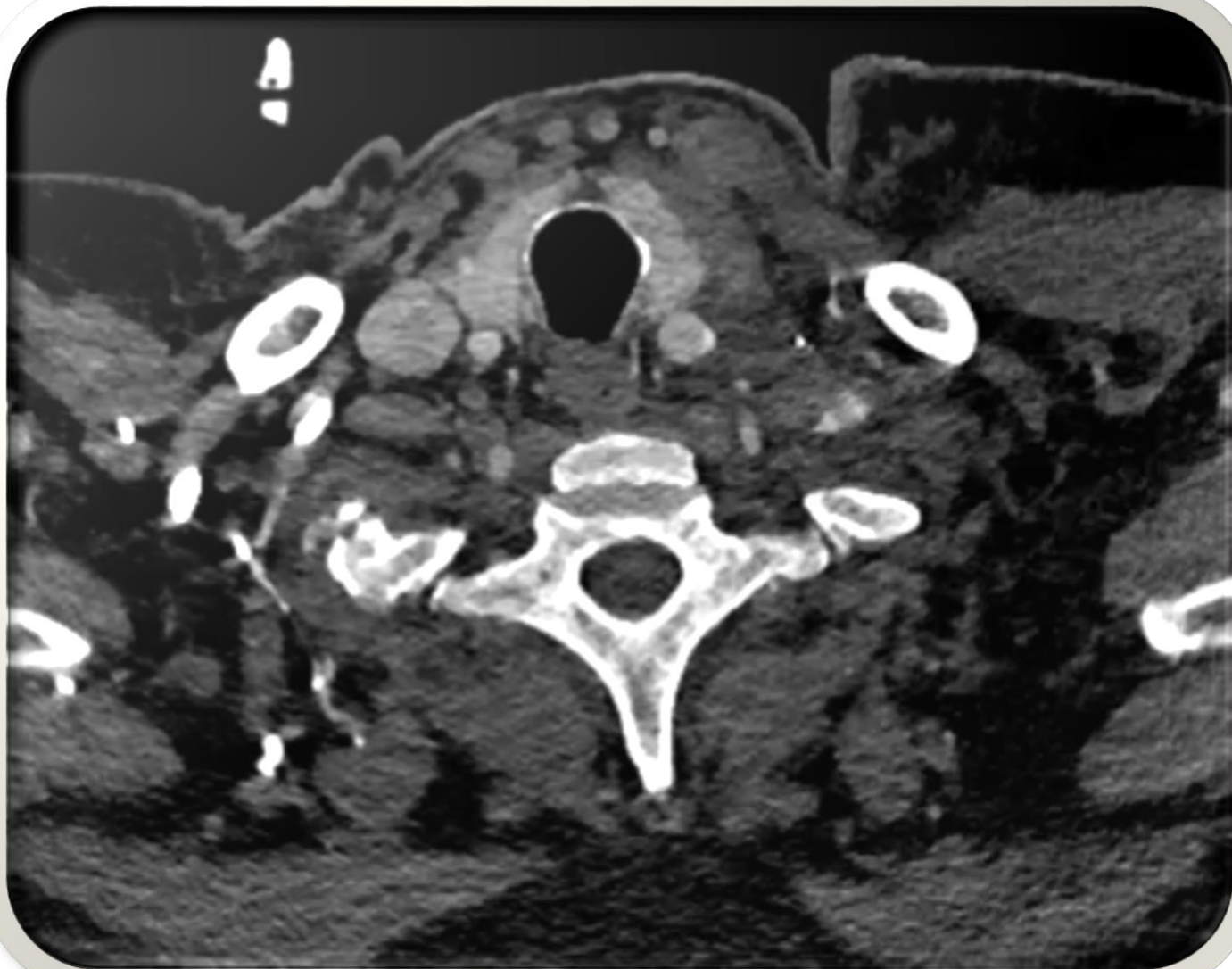




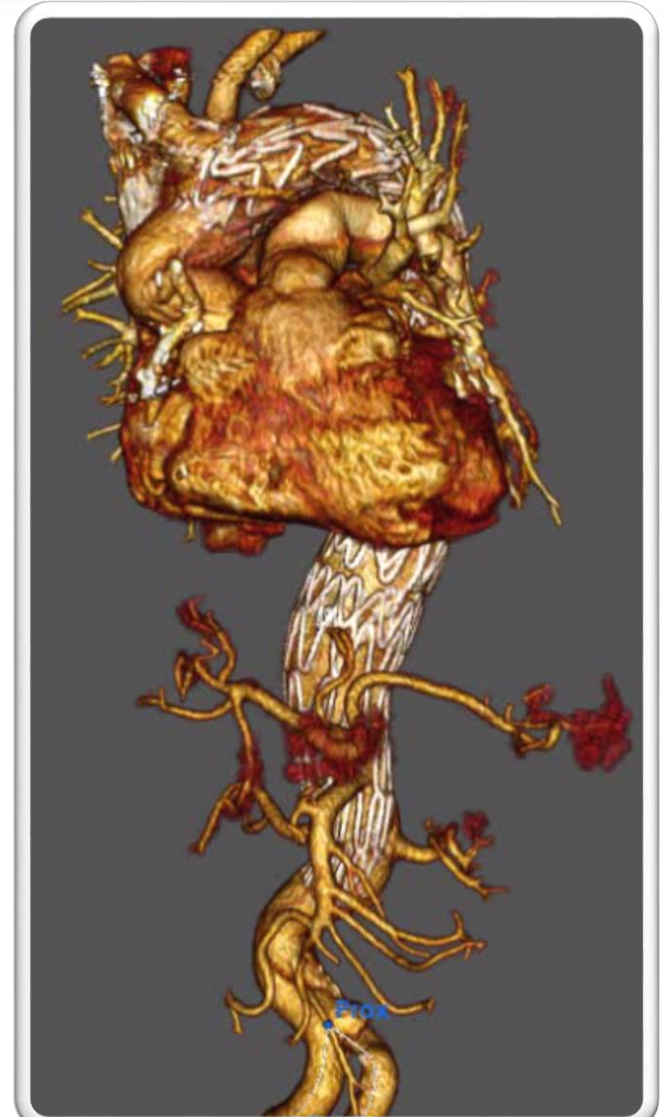
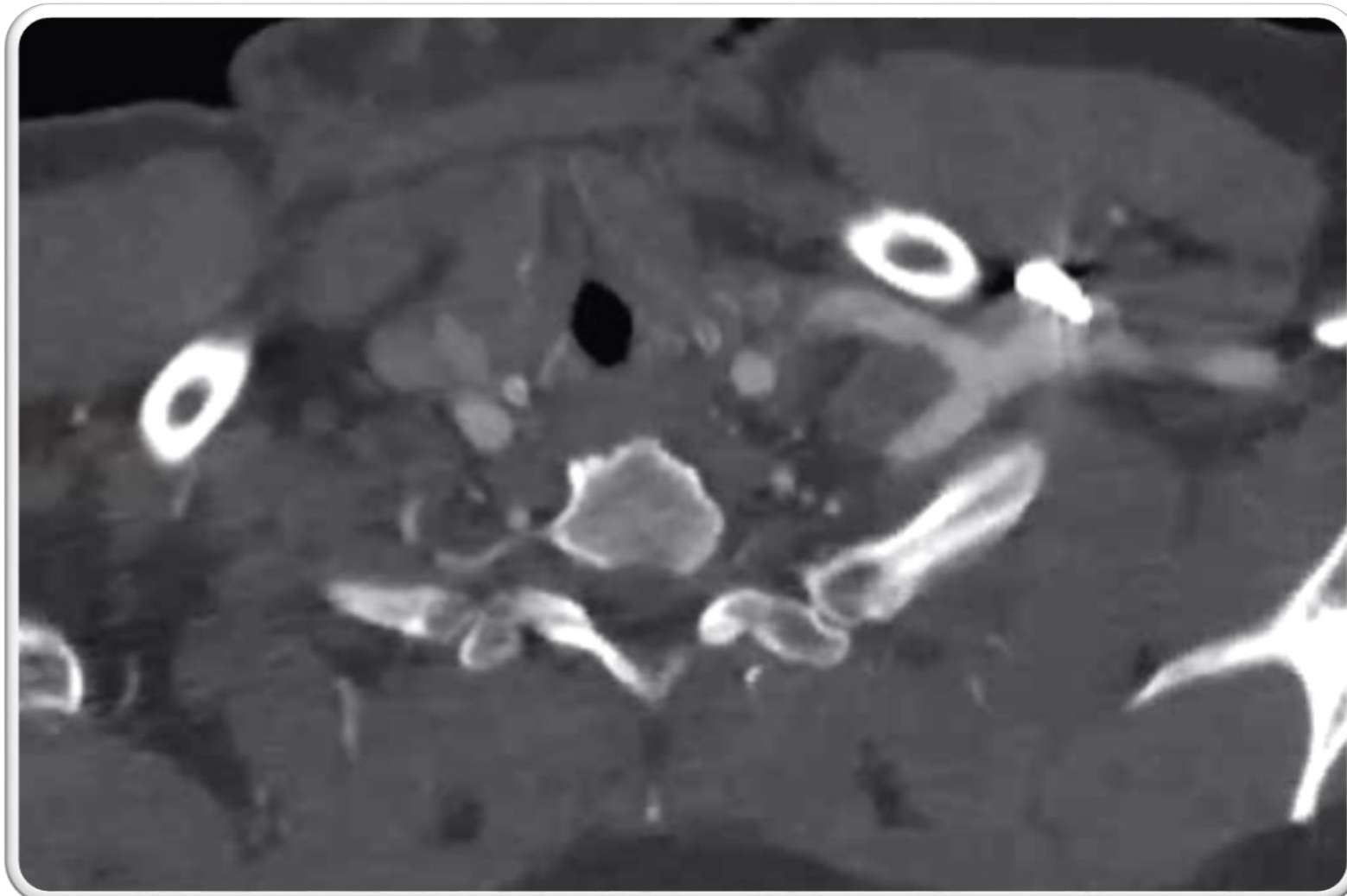
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ThoraFlex + STABILISE

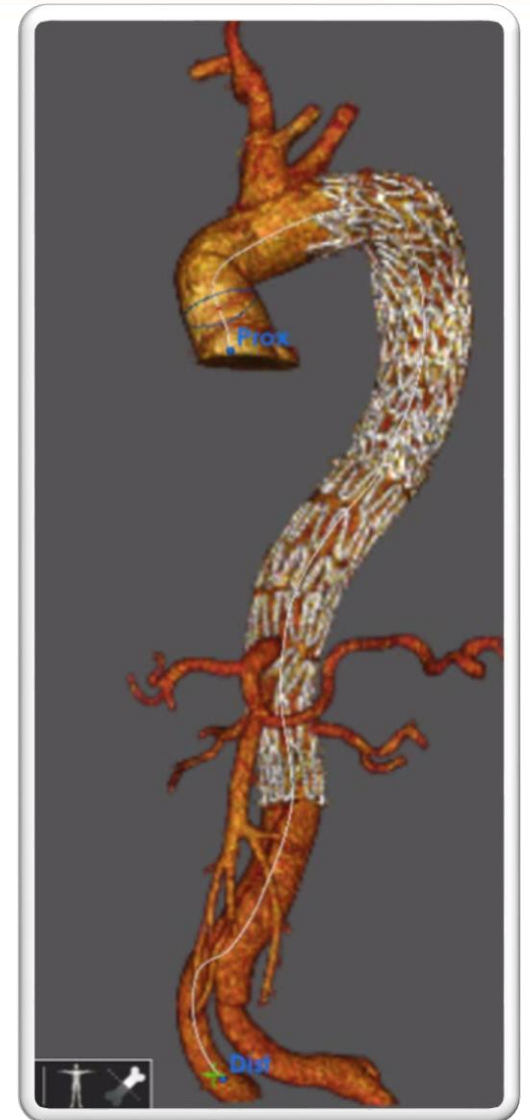


Proximal Scallop + STABILISE



STABILISE in Type A

- 24 STABILISE in Type A : 12 Chronic / 12 Acute
 - 11 after Standard TEVAR
 - 8 after Thoraflex
 - 4 after Proximal Scallop
 - 1 after Double Branch
- No IH Mortality, No Paraplegia, No Stroke
- 100 % FL Thrombosis + Remodeling
- 3 reinterventions during 1 year follow-up:
 - 2 conversions of Standard TEVAR to Thoraflex for type 1 endoleak
 - 1 conversion of Thoraflex to OR for type 2 in Marfan



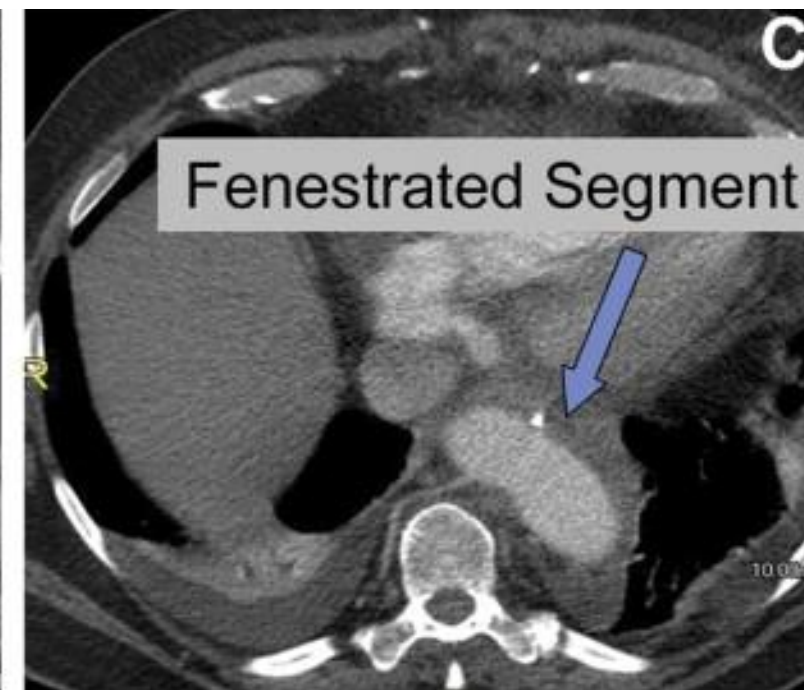
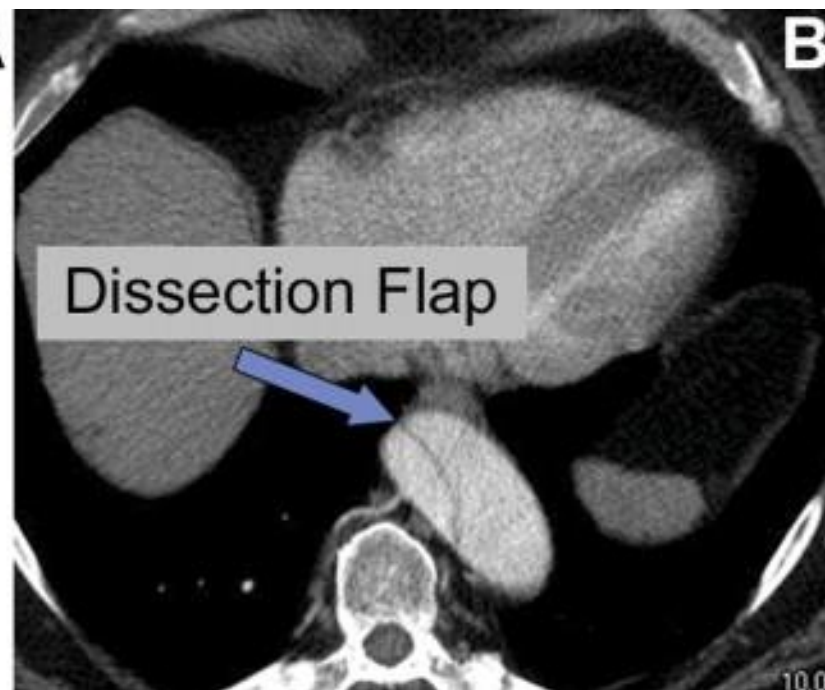
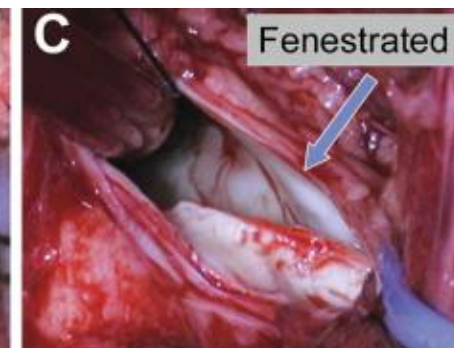
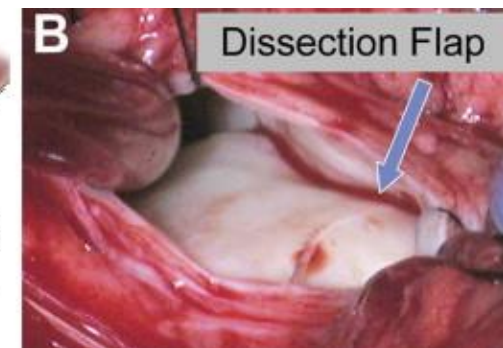
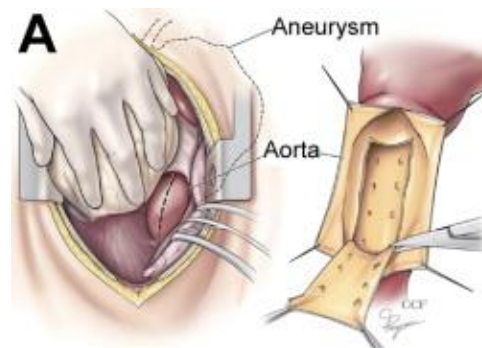
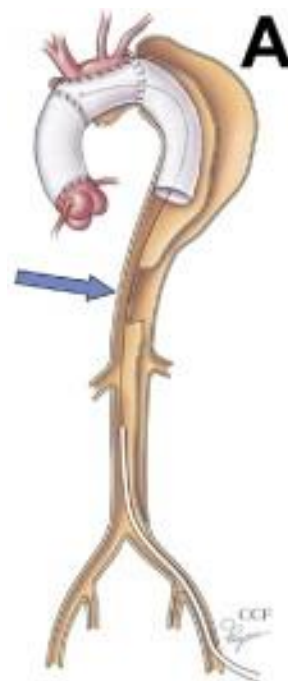
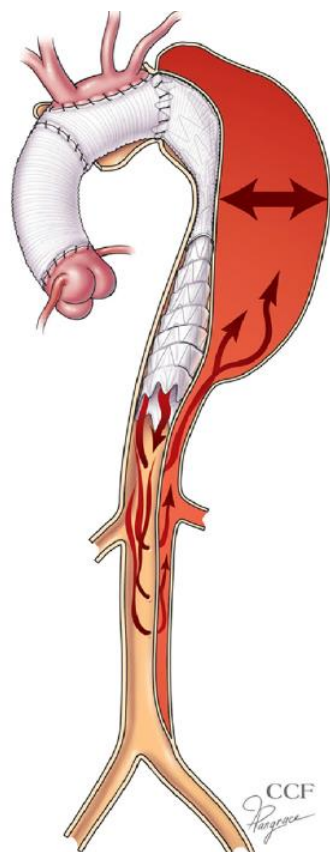


Open Fenestration

Distal Landing Zone Open Fenestration Facilitates Endovascular Elephant Trunk Completion and False Lumen Thrombosis

Eric E. Roselli, MD, Edgardo Sepulveda, MD, Akshat C. Pujara, BA,
Jahanzaib Idrees, BS, and Edward Nowicki, MD

(Ann Thorac Surg 2011;92:2078–84)

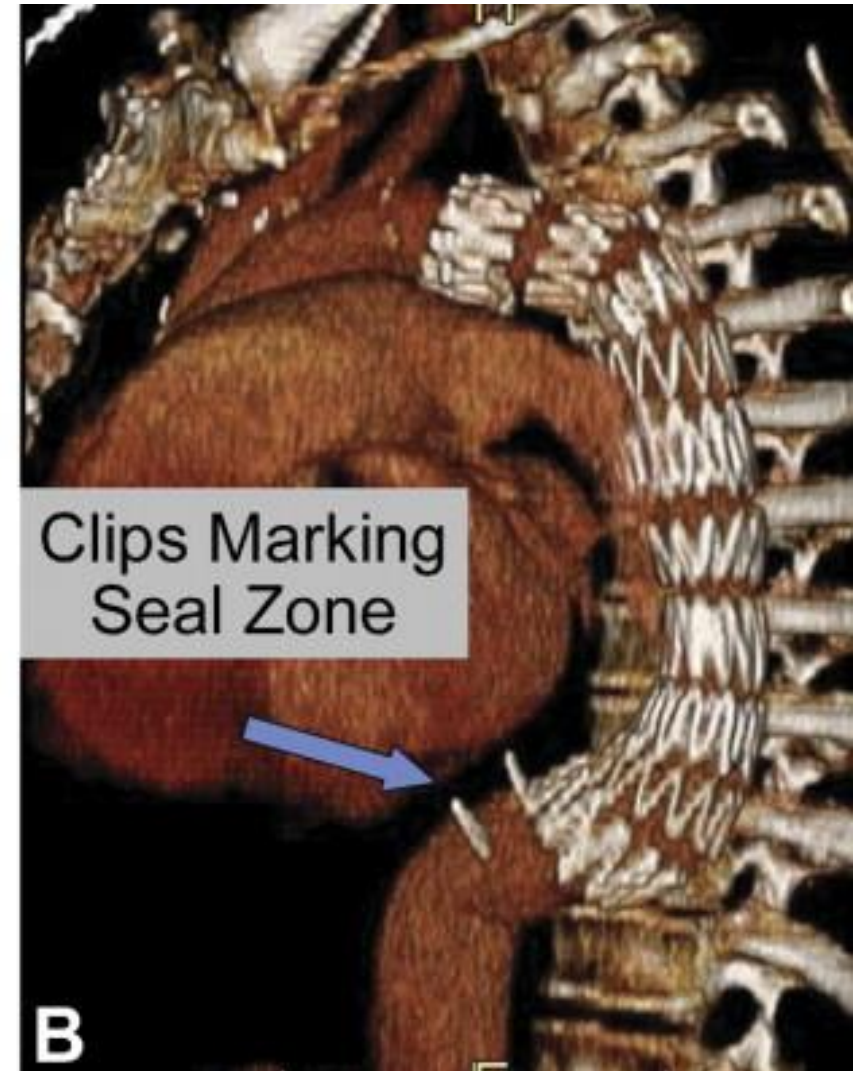
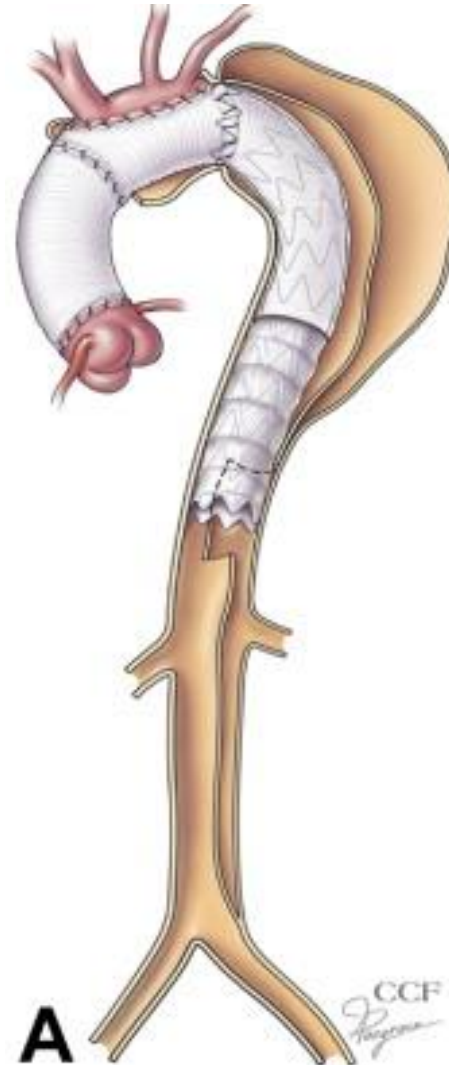
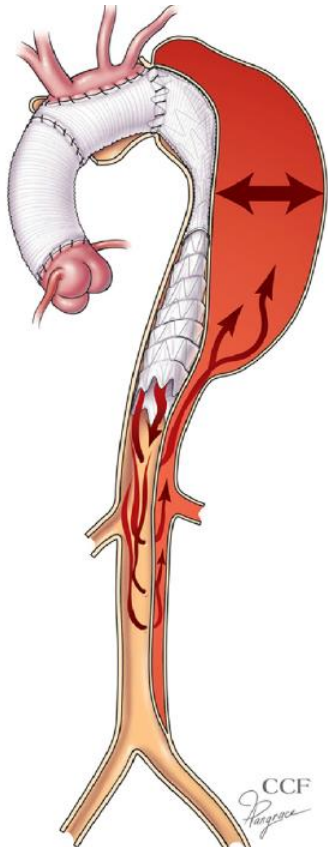


Open Fenestration

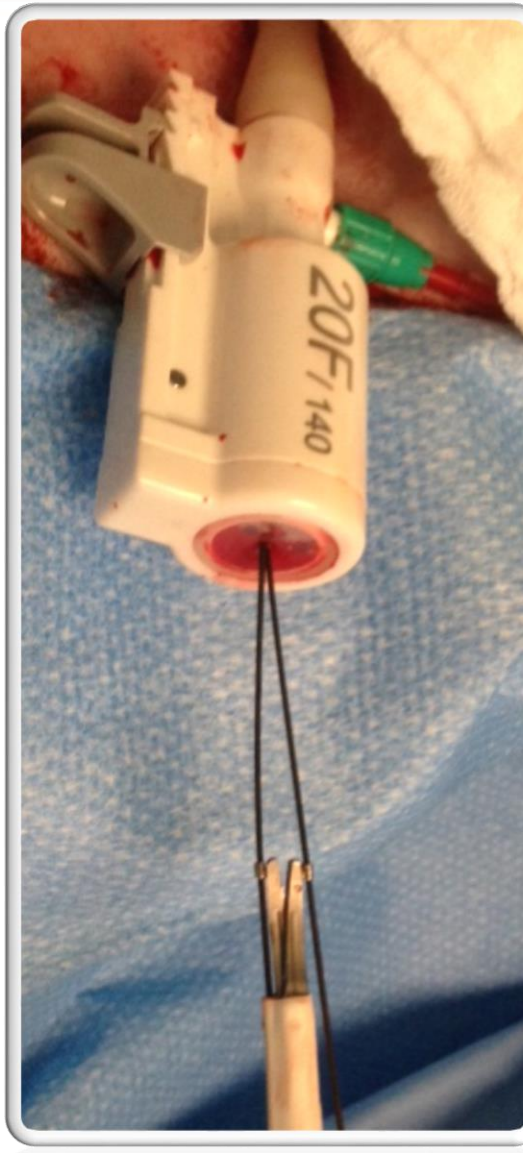
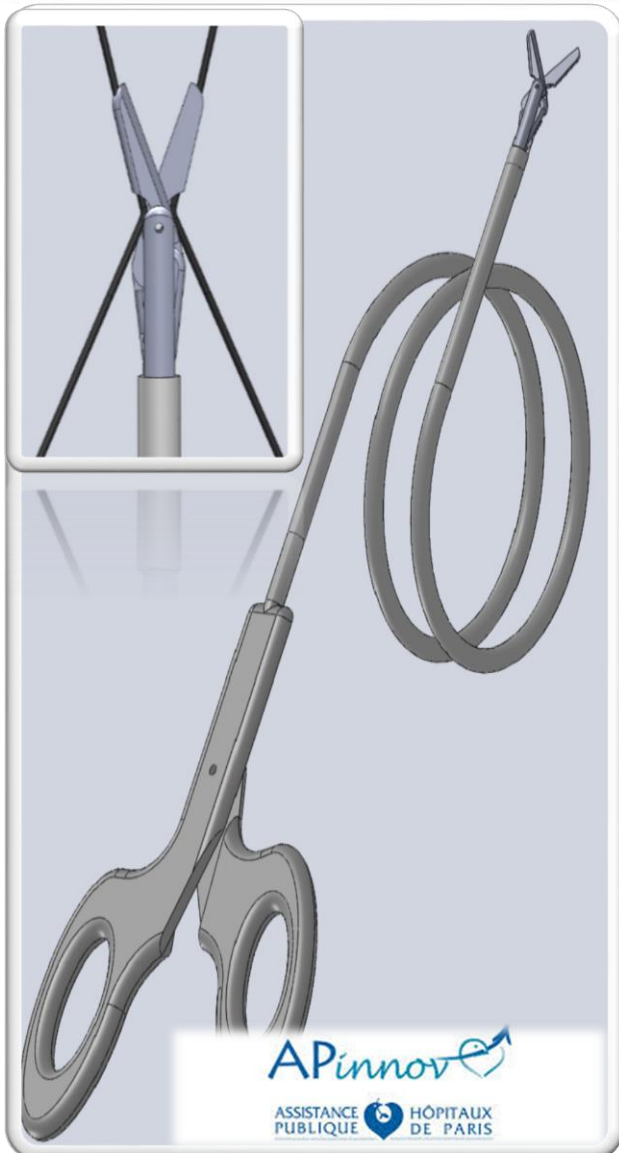
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Endovascular Fenestration ?

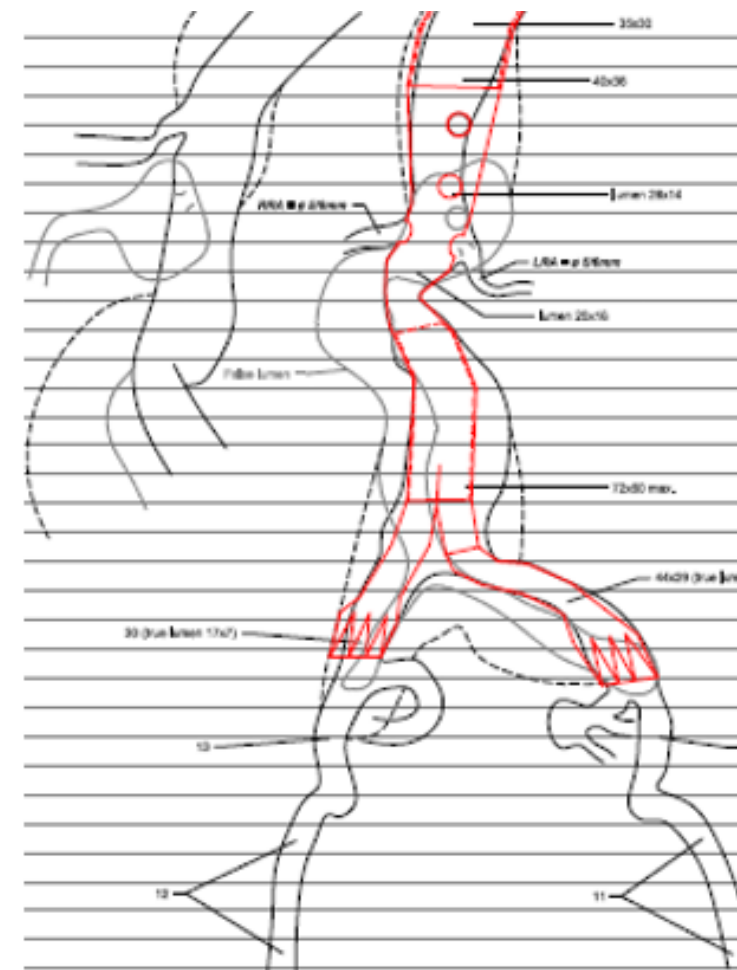
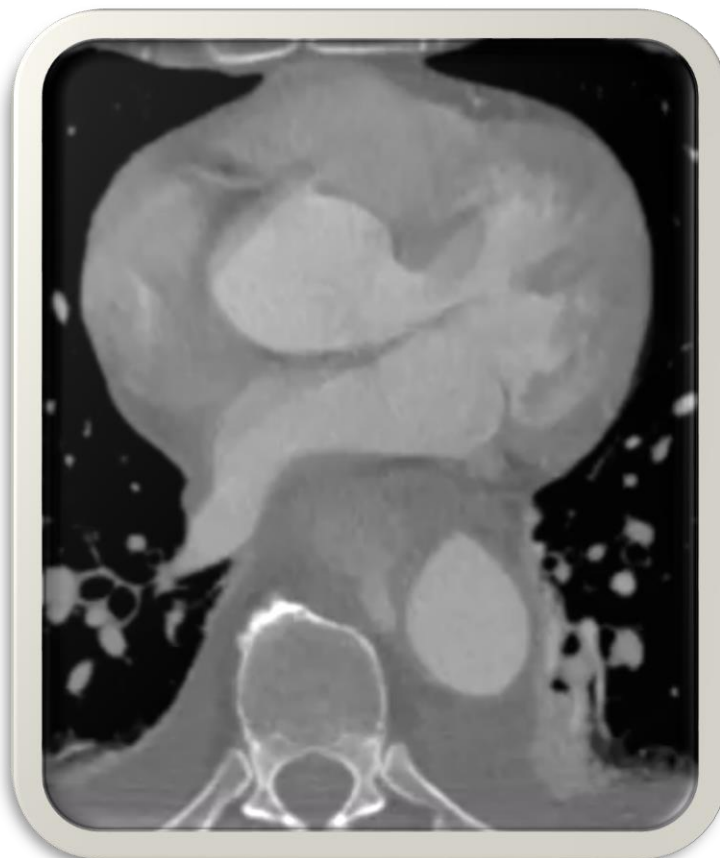




Early Experience of Endovascular Repair of Post-dissection Aneurysms Involving the Thoraco-abdominal Aorta and the Arch

R. Spear ^a, J. Sobocinski ^a, N. Settembre ^b, M.R. Tyrrell ^c, S. Malikov ^b, B. Maurel ^a, S. Haulon ^{a,*}

Eur J Vasc Endovasc Surg (2016)





Early Experience of Endovascular Repair of Post-dissection Aneurysms Involving the Thoraco-abdominal Aorta and the Arch

Eur J Vasc Endovasc Surg (2016)

R. Spear ^a, J. Sobocinski ^a, N. Settembre ^b, M.R. Tyrrell ^c, S. Malikov ^b, B. Maurel ^a, S. Haulon ^{a,*}

Table 4. Early outcomes.

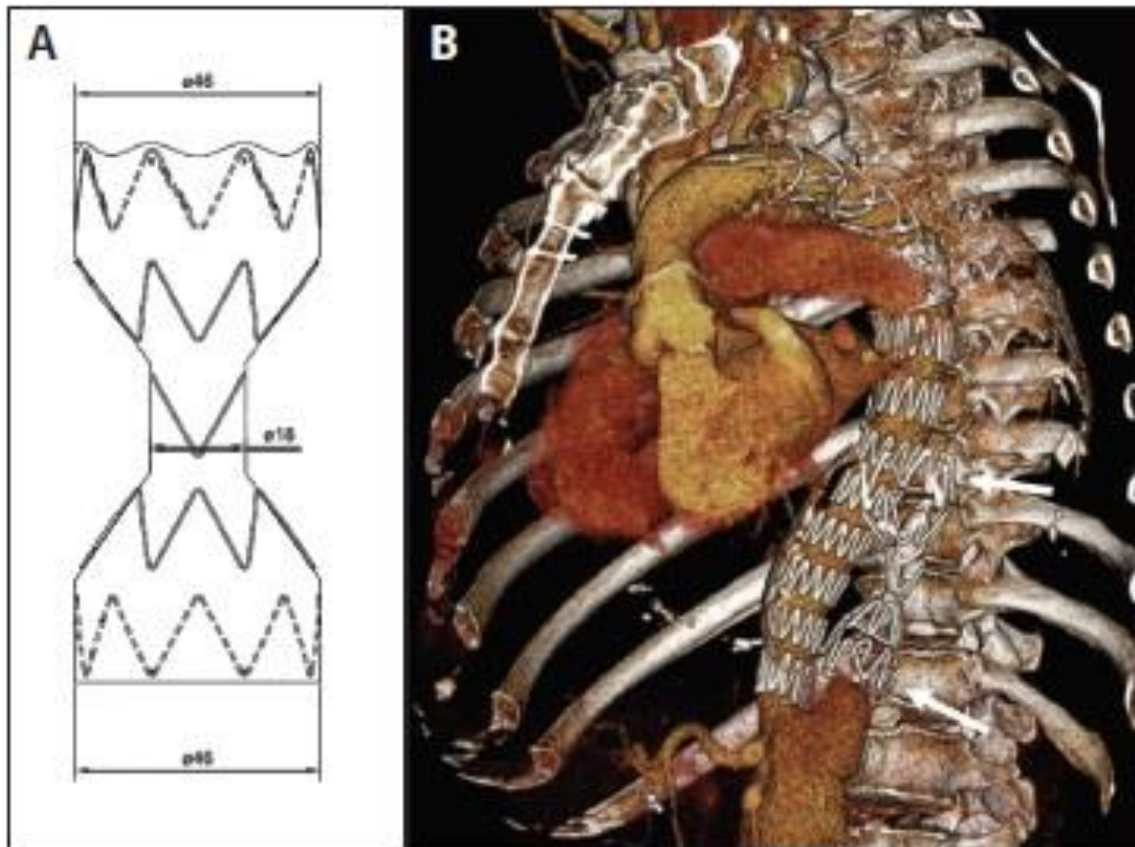
	Major adverse events, <i>n</i> (%)	In hospital mortality, <i>n</i> (%)	Spinal cord ischemia, <i>n</i> (%)	Secondary procedures, <i>n</i> (%)	Type 1 endoleak, <i>n</i> (%)	Type 2 endoleak, <i>n</i> (%)	Type 3 endoleak, <i>n</i> (%)
Aortic arch aneurysm (<i>n</i> = 7)	2 (28.5)	1 (14)	0 (0)	2 (28.5)	1 (14)	1 (14)	0 (0)
TAAA (<i>n</i> = 16)	2 (12.5)	1 (6) ^a	1 (6) ^a	0 (0)	1 (6)	6 (37.5)	1 (6)
Total (<i>n</i> = 23)	4 (17.4)	2 (8.7)	1 (4.4)	2 (8.7)	2 (8.7)	7 (30)	1 (4.4)



Other Occlusion Technics ...

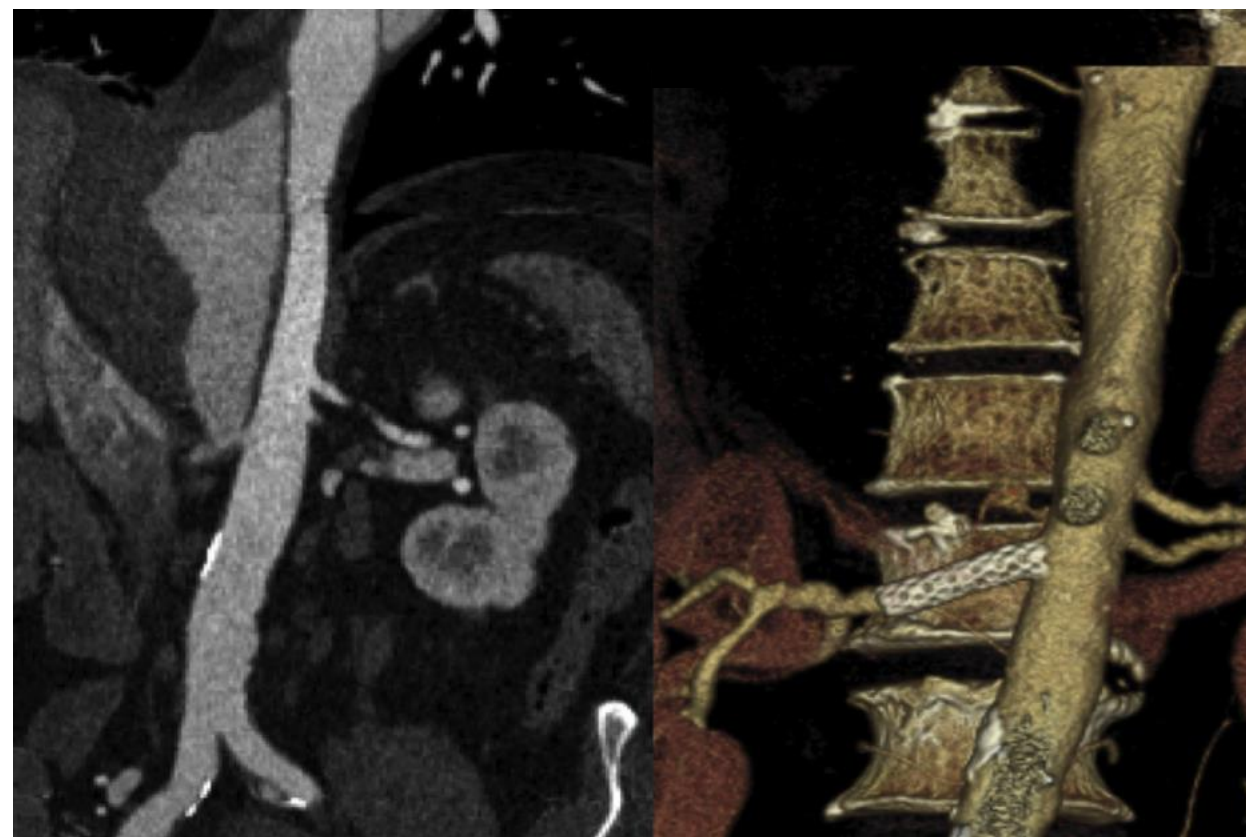
Distal False Lumen Occlusion in Aortic Dissection With a Homemade Extra-Large Vascular Plug: The Candy-Plug Technique

Tilo Kölbel, MD, PhD; Christina Lohrenz, MD; Arne Kieback, MD; Holger Diener, MD;
Eike Sebastian Debus, MD, PhD; and Axel Larena-Avellaneda, MD, PhD



Spot Stenting of the Tear in Type B Aortic Dissection

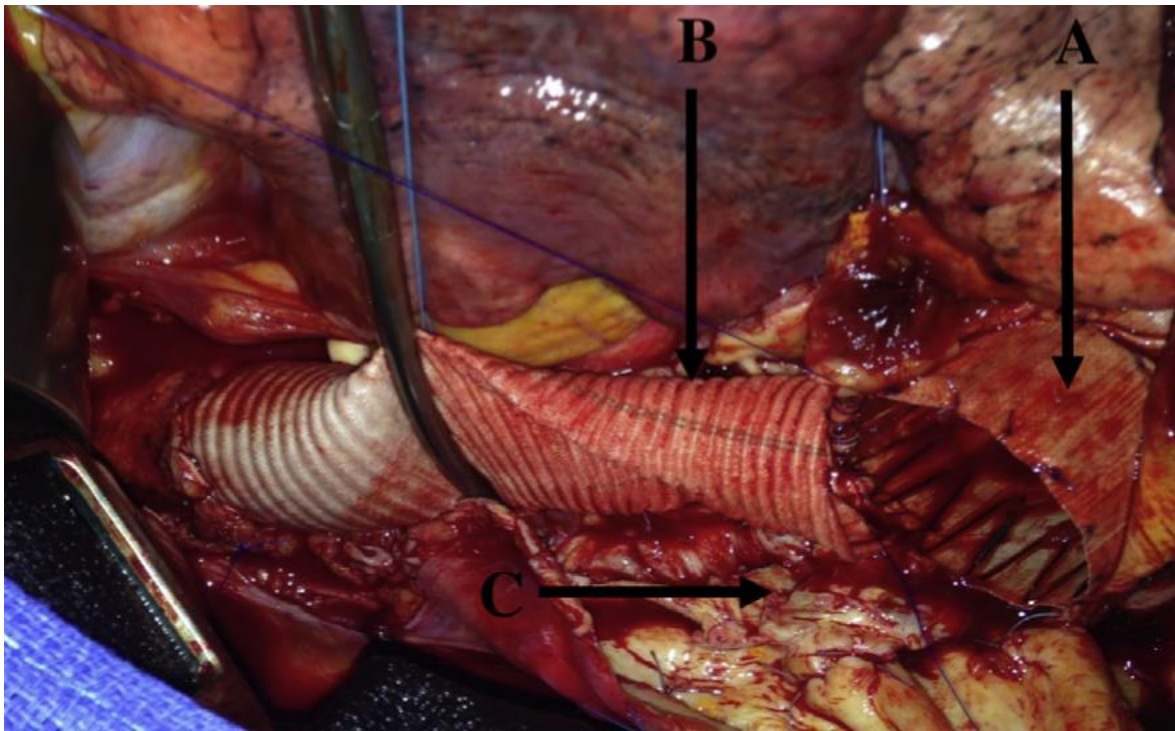
Alain Bel,¹ Jean-Marc Alsac,^{1,2} Valentine Baïssas,^{1,2} Pierre Julia,^{1,2} and Jean-Noël Fabiani,^{1,2}
Paris, France



Open Repair as a Back-Up...

Technical Aspects of Open Repair for Degenerative Aneurysmal Evolution Despite Early Thoracic Endovascular Repair of Type B Aortic Dissection

Sonia Aguir,¹ Salma El Batti,^{1,2} Paul Achouh,^{1,2} Pierre Julia,^{1,2} Alain Bel,¹ Jean-Noël Fabiani,^{1,2} and Jean-Marc Alsac,^{1,2} Paris, France



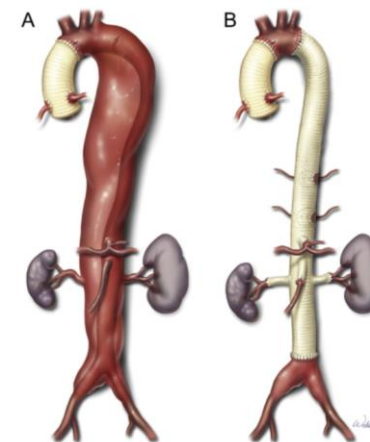
Open Repair of Thoracoabdominal Aortic Aneurysm in Patients 50 Years Old and Younger

Presented at the Fifty-Second Annual Meeting of The Society of Thoracic Surgeons, Phoenix, AZ, Jan 23–27, 2016.

[Joseph S. Coselli](#), MD, [Hiruni S. Amarasekara](#), MS, [Susan Y. Green](#), MPH, [Matt D. Price](#), MS, [Ourania Preventza](#), MD, [Kim I. de la Cruz](#), MD, [Qianzi Zhang](#), MPH, [Scott A. LeMaire](#), MD

Results of Open Surgical Repair in Patients With Marfan Syndrome and Distal Aortic Dissection

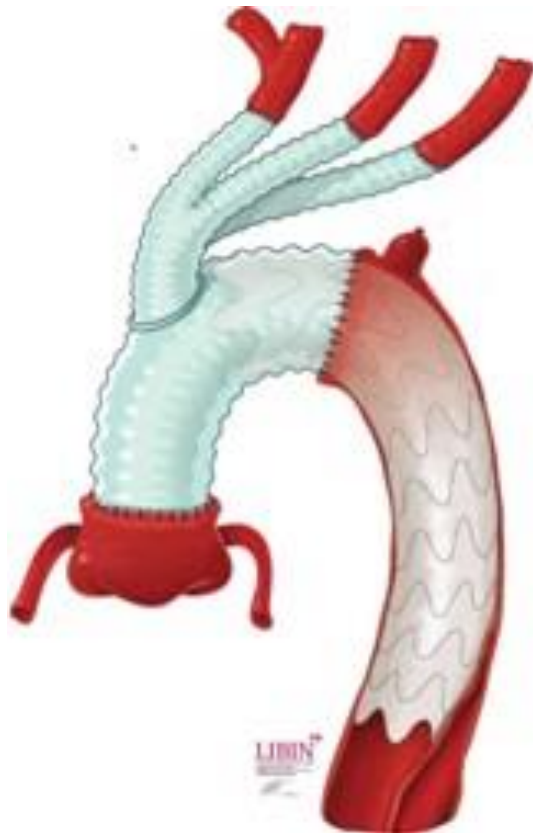
Joseph S. Coselli, MD, Susan Y. Green, MPH, Matt D. Price, MS, Jonathan A. Hash, BS, Yafei Ouyang, BS, Irina V. Volguina, PhD, Ourania Preventza, MD, Kim I. de la Cruz, MD, and Scott A. LeMaire, MD



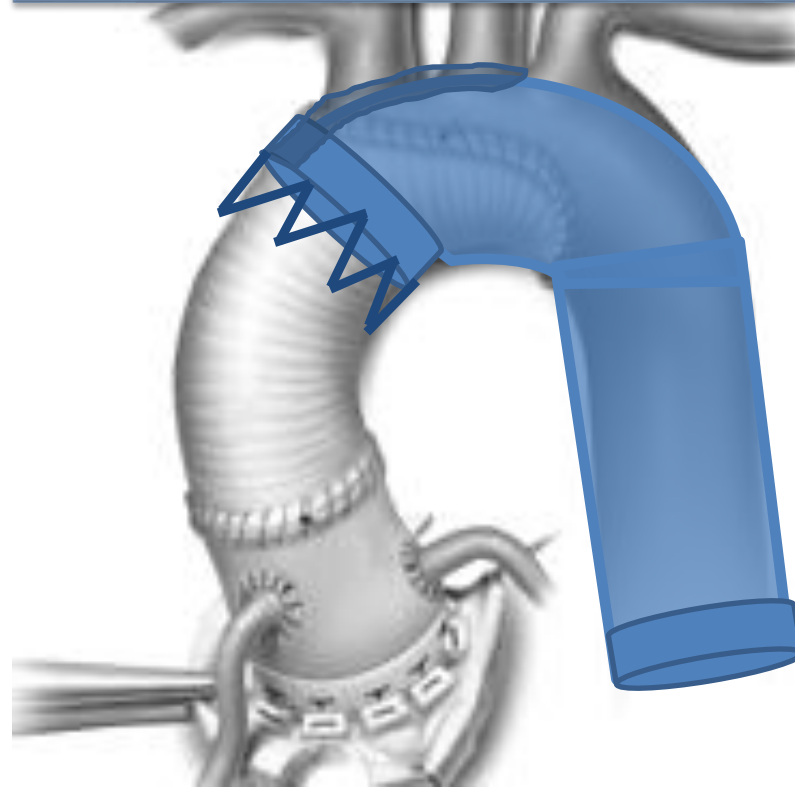
- 3,2 to 4 % of IH Mortality
- 4 % of SCI

3 Take Home Messages

1. No Compromise on Proximal Sealing

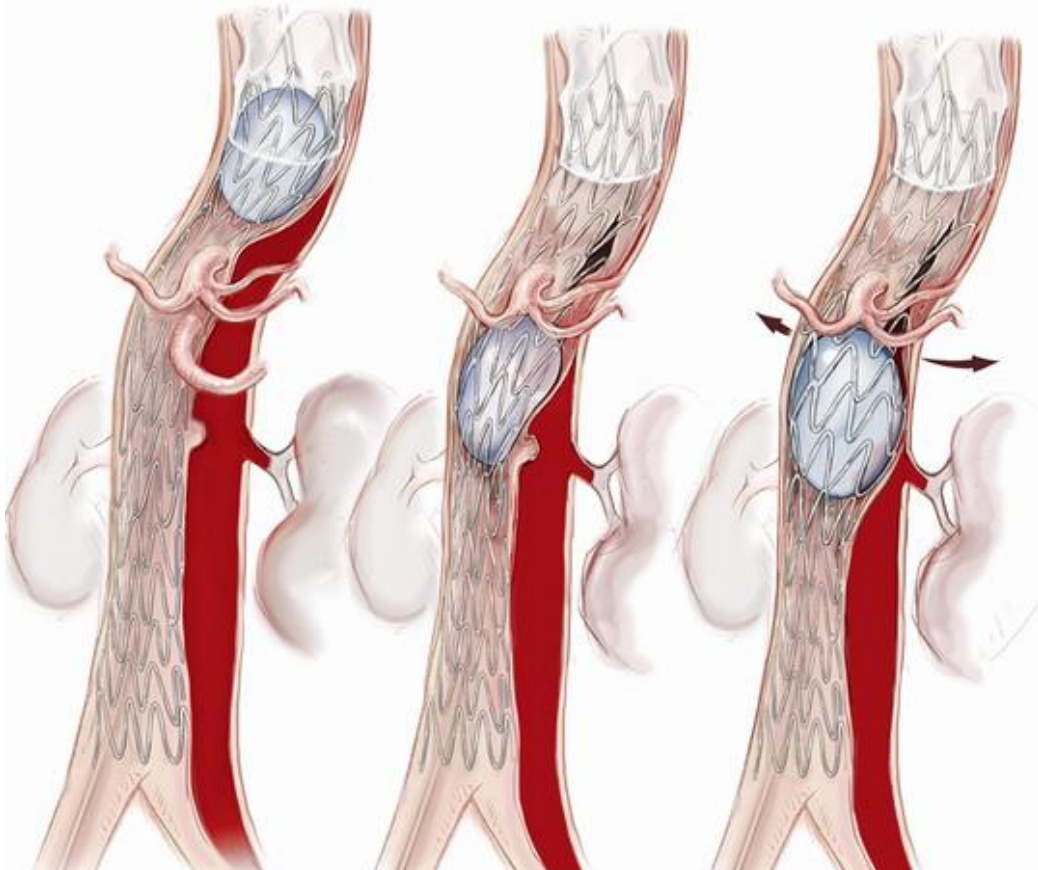


Reverse Endovascular
Hemiarch Repair

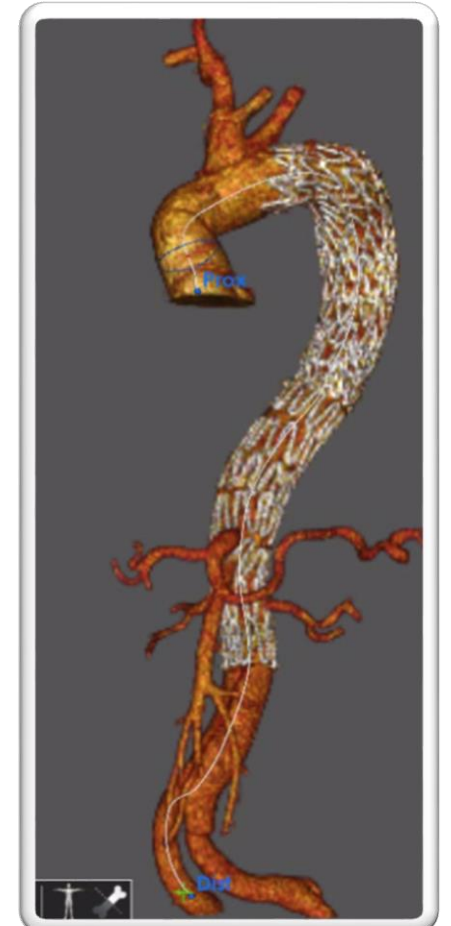
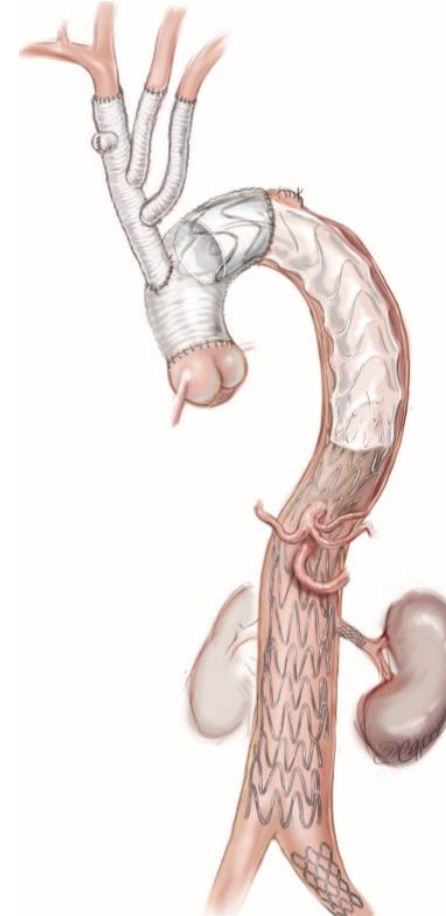


3 Take Home Messages

2. Agressive Management of Distal Tears



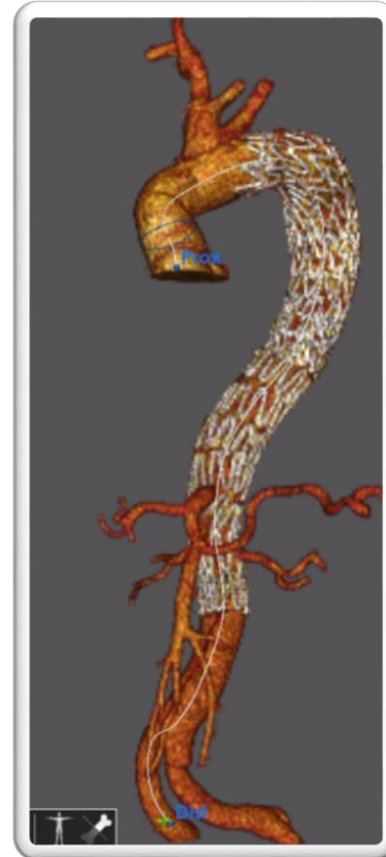
Stent-Assisted Balloon-Induced Intimal Disruption and Relamination
in Aortic Dissection Repair: The STABILISE concept



3 Take Home Messages

3. Management by an « Aortic Team »

- Cardiac Surgeons
- Cardiologist / Vascular Physician
- Vascular / Endovascular Surgeons



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CONTROVERSIES & UPDATES
IN VASCULAR SURGERY

Thank you for your attention ...



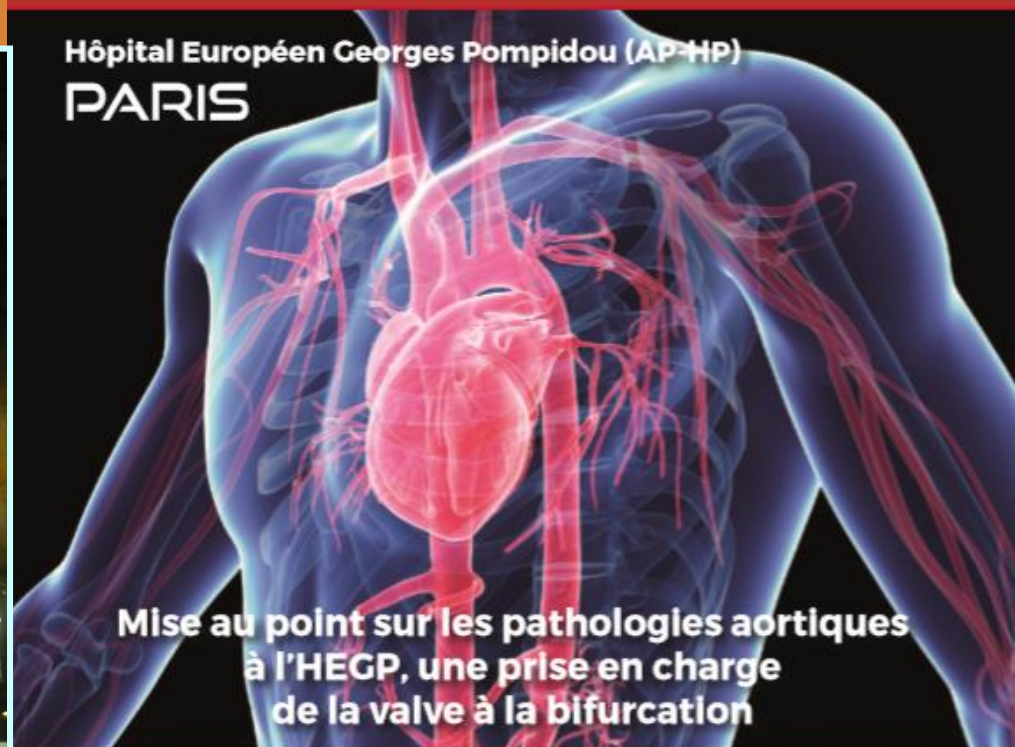
jean-marc.alsac@aphp.fr



Hôpital Européen Georges Pompidou

MATINÉE DE L'AORTE
SAMEDI 26 MAI 2018 08:30-14:00

Hôpital Européen Georges Pompidou (AP-HP)
PARIS



Mise au point sur les pathologies aortiques
à l'HEGP, une prise en charge
de la valve à la bifurcation



Hôpital européen Georges-Pompidou



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