

How To Manage Dissected Supra Aortic Trunks During Arch Branch Endovascular Repair

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Disclosures

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• Tilo Kolbel, Hamburg, Germany

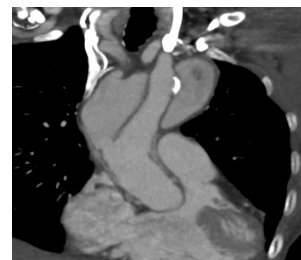
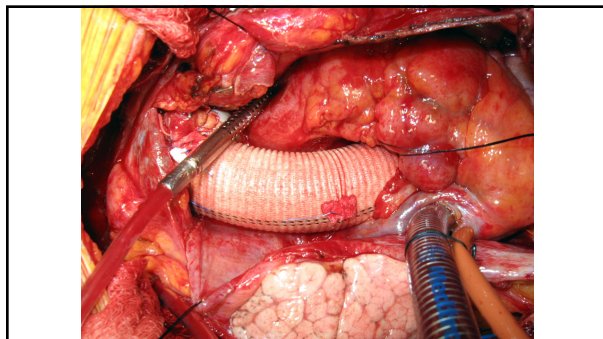
• Gustavo Oderich, Houston, USA

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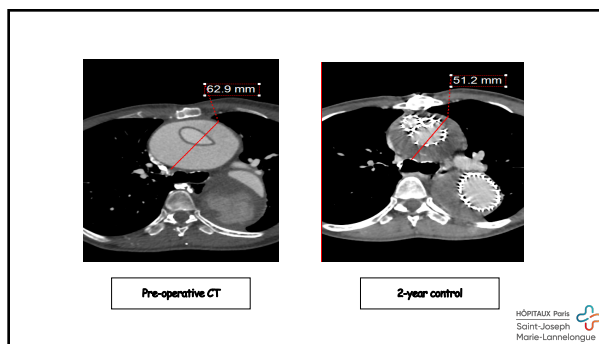
Post Type A Repair



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Previous Ascending Repair

Variables	No.	Mean	SD	Range
Measurements				
Maximum diameter of graft in AA, mm	73	33.4	3.2	26-42
Length from coronary sinus to distal anastomosis, mm	73	42.1	20.4	2-85
IA, mm	73	52.3	19.7	9-99
		Median	Q1	Q3
Length from distal anastomosis to IA, mm	73	7	0, 17	0-54
Landing zone characteristics				
	Yes (%)	No (%)		
Stable proximal landing zone?	52/73 (71.2)	21/73 (28.8)		
Reasons for unsuitability				
AA graft too short (<40 mm)	15/21 (71.4)			
Major kink (>90 degrees) in AA graft	5/21 (23.8)			
AA graft diameter too large (>30 mm)	1/21 (4.8)			

AA = ascending aorta; IA = innominate artery; Q1 = quartile 1; Q3 = quartile 3; SD = standard deviation.

Milne CPÉ et al. Ann Thorac Surg 2016

ANNALS OF SURGERY ORIGINAL ARTICLE

Endovascular Treatment of Post Type A Chronic Aortic Arch Dissection With a Branched Endograft

Early Results From a Retrospective International Multicenter Study

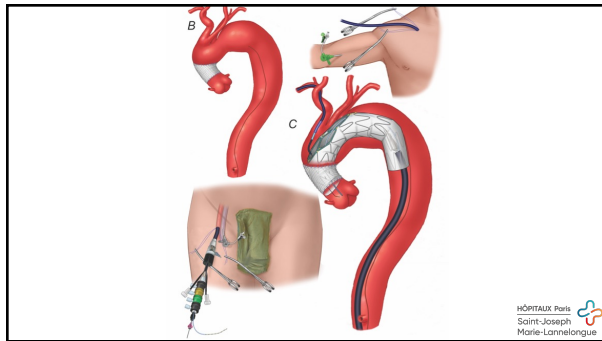
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Inner Branched Arch Endografts following Ascending Open Repair

- 70 patients
- In-hospital combined mortality and stroke rate was 4% (n=3)
 - one minor stroke, one major stroke causing death, and one death following multi-organ failure.
- Technical success rate was 97%

"First in man" total percutaneous aortic arch repair with 3-inner-branch Endografts

J Mougou, R Azogui, J Guihaire, MR Tyrrell, G Oderich, D Fabre, Stephan Haulon



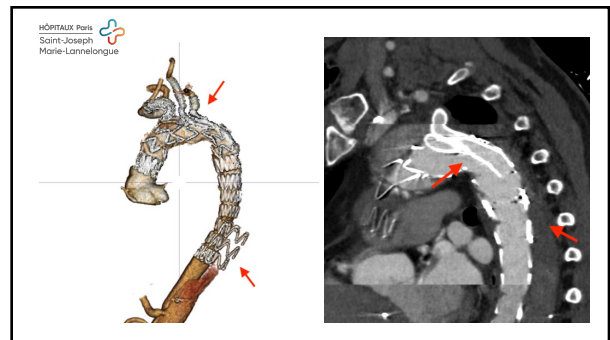
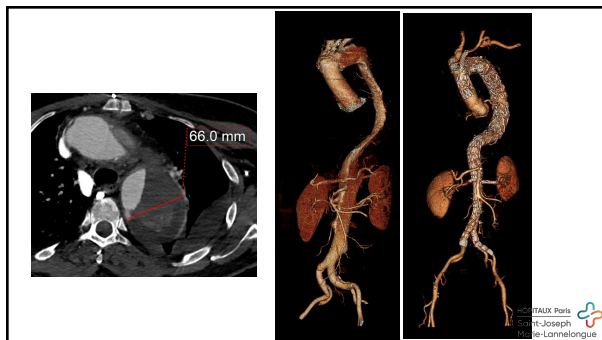
Failure to Remodel in Chronic Dissection

Diagram illustrating the failure to remodel in chronic dissection. The diagram shows the aorta with a dissection flap and intercostal arteries. The text on the right lists the following points:

- Perfusion and pressure unchanged in false lumen
- Presence of Intercostals originating from false lumen
- False lumen back flow to Intercostals

Courtesy Tilo Kölbel

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Check for updates

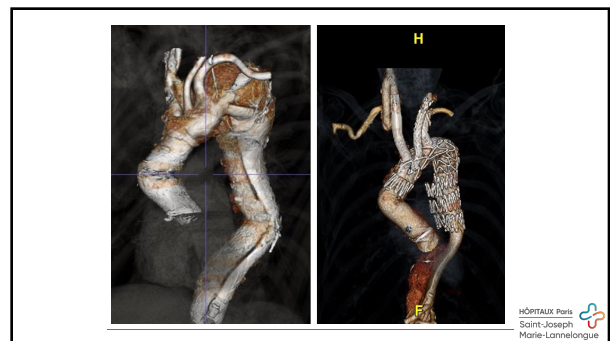
Clinical Investigation

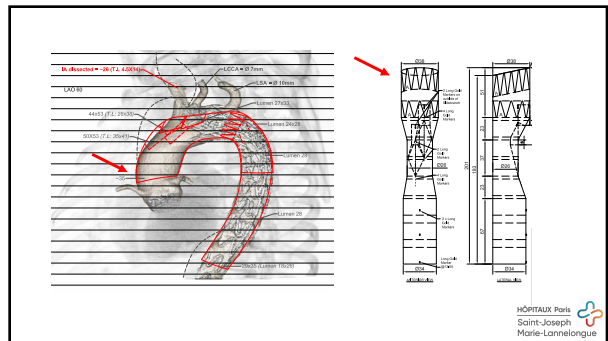
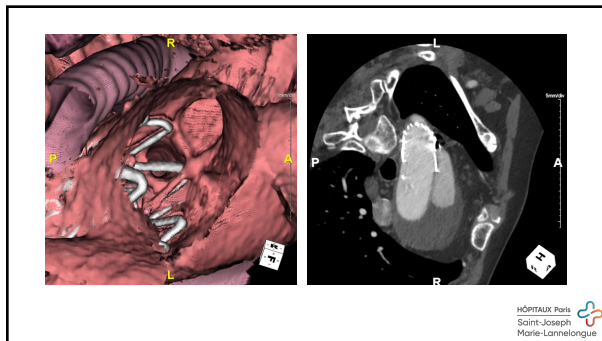
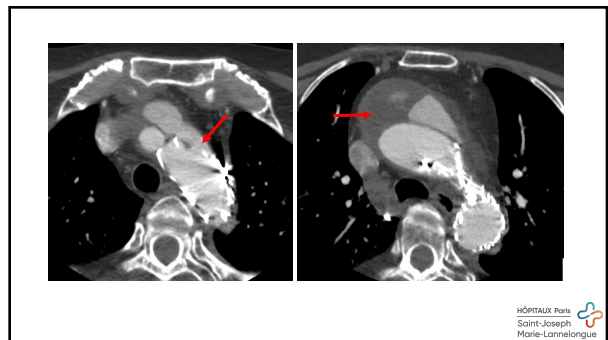
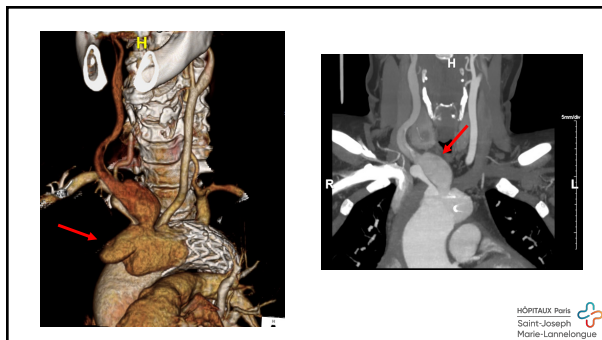
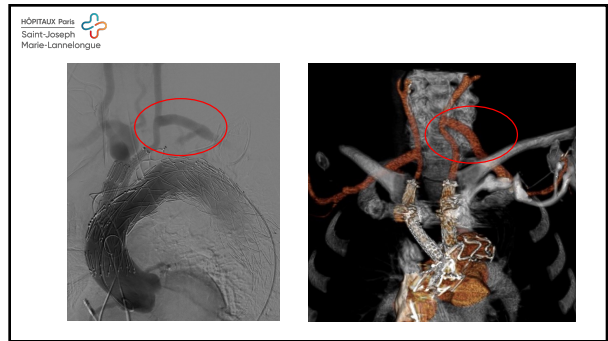
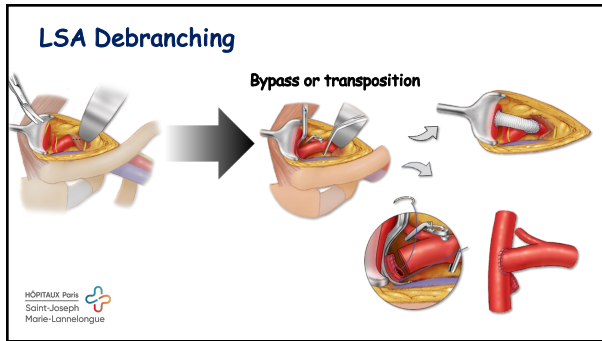
Management of the False Lumen in Post Type A Aortic Dissection Arch Aneurysms Treated With Branched Endografts

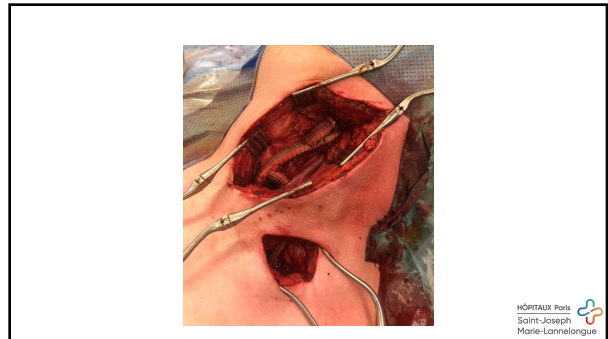
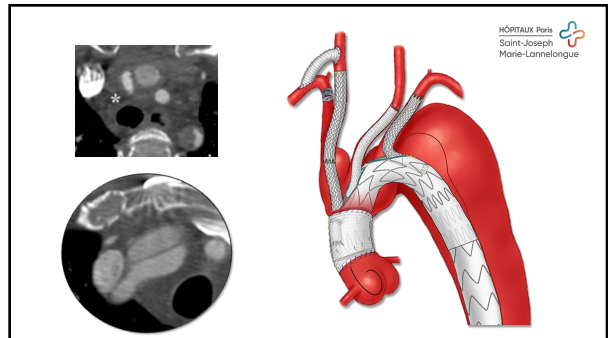
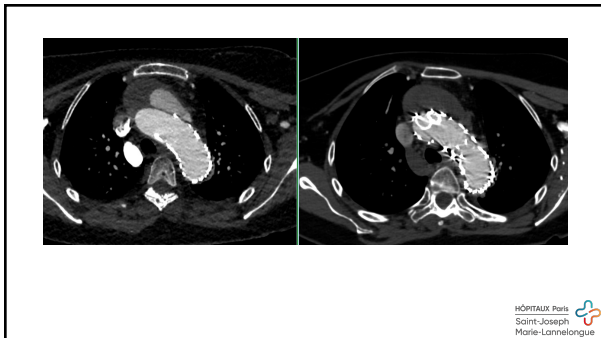
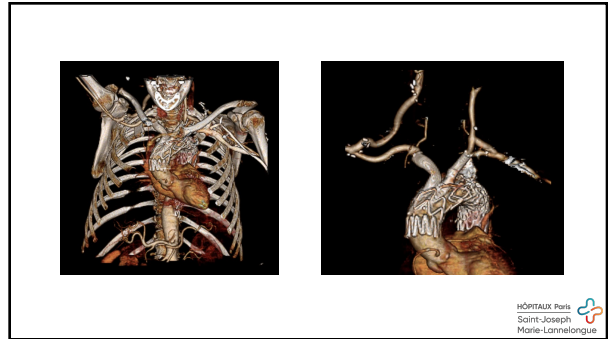
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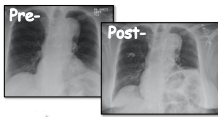







Early Complications

- Hematoma, 3-10%
- Wound Infection, 2.5%
- Nerve injury
 - Phrenic nerve, **25%**
 - Vagus (recurrent laryngeal) nerve, 5%
 - Brachial plexus
- Thoracic duct injury (chyle or lymphatic leak)
- Horner syndrome
- Vessel injury/ dissection
- Jugular vein thrombosis
- Graft infection, 1%




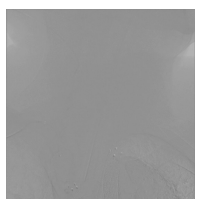
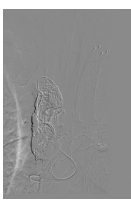
Pre- Post-



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Konstantinou N et al. Eur J Vasc Surg 2019; Voigt et al. J Vasc Surg 2019

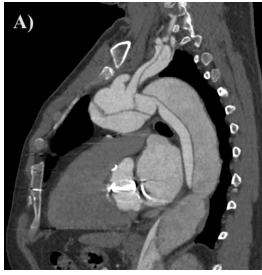
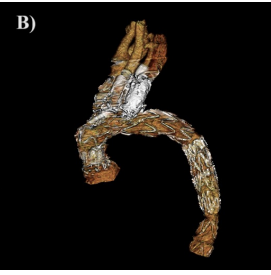
Endovascular Management

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CONCLUSIONS

- Chronic Type A dissections
- Staged approach
 - SAT debranching / Embolization
 - False lumen occluders

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