



ENDOTENSION ET CHIRURGIE OPEN



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Disclosures

- **Consulting : COOK MEDICAL, GORE, GETINGE**
- **Proctoring : COOK MEDICAL, GORE**

Problématique



Prise en charge endo des ATA =
risque d'endofuite / endotension & croissance du sac

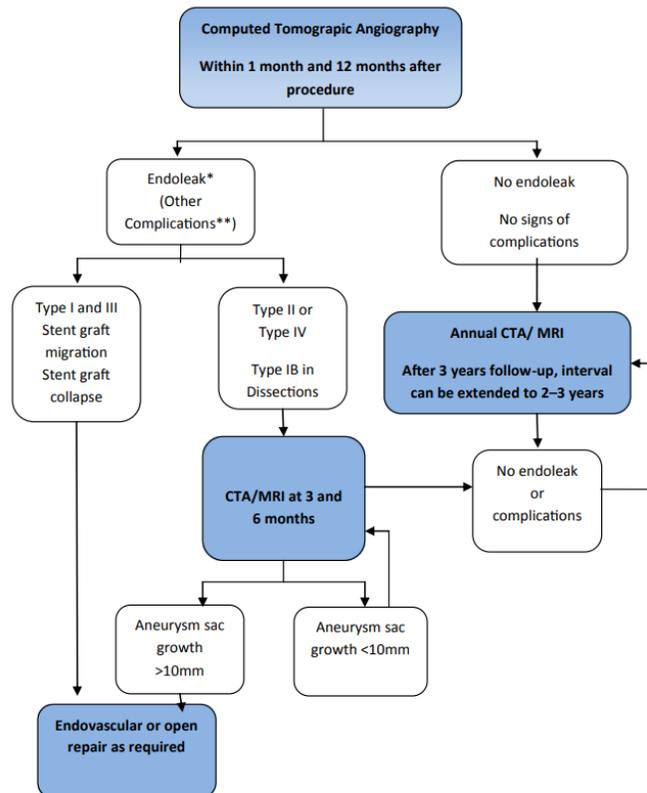


Figure 5. Suggested surveillance algorithm after TEVAR. *Endoleak types: type I, direct flow between endograft an

Recommendation 111

Unchanged

Patients with significant aneurysm sac growth (≥ 10 mm compared with baseline or with the smallest diameter during follow up using the same imaging modality and measurement method) after endovascular abdominal aortic aneurysm repair, without visible endoleak after multimodality imaging, should be considered for stent graft relining or conversion to open surgical repair.

Class	Level	References	ToE
Ila	C	Schlösser <i>et al.</i> (2009), ⁷⁹² Bussmann <i>et al.</i> (2017), ⁸⁶⁹ Perini <i>et al.</i> (2022) ⁸⁷¹	

Problématique



Ré-intervention :

- **First step : embolisation**
- **Persistance de croissance = conversion**
- **Pour réduire l'agressivité = semi-conversion avec préservation de l'endoprothèse**
- **Principalement rapporté après EVAR (*Hinchliffe 2002*)**

Systematic review and meta-analysis of outcomes after semi-conversion with graft preservation for failed endovascular aneurysm repair

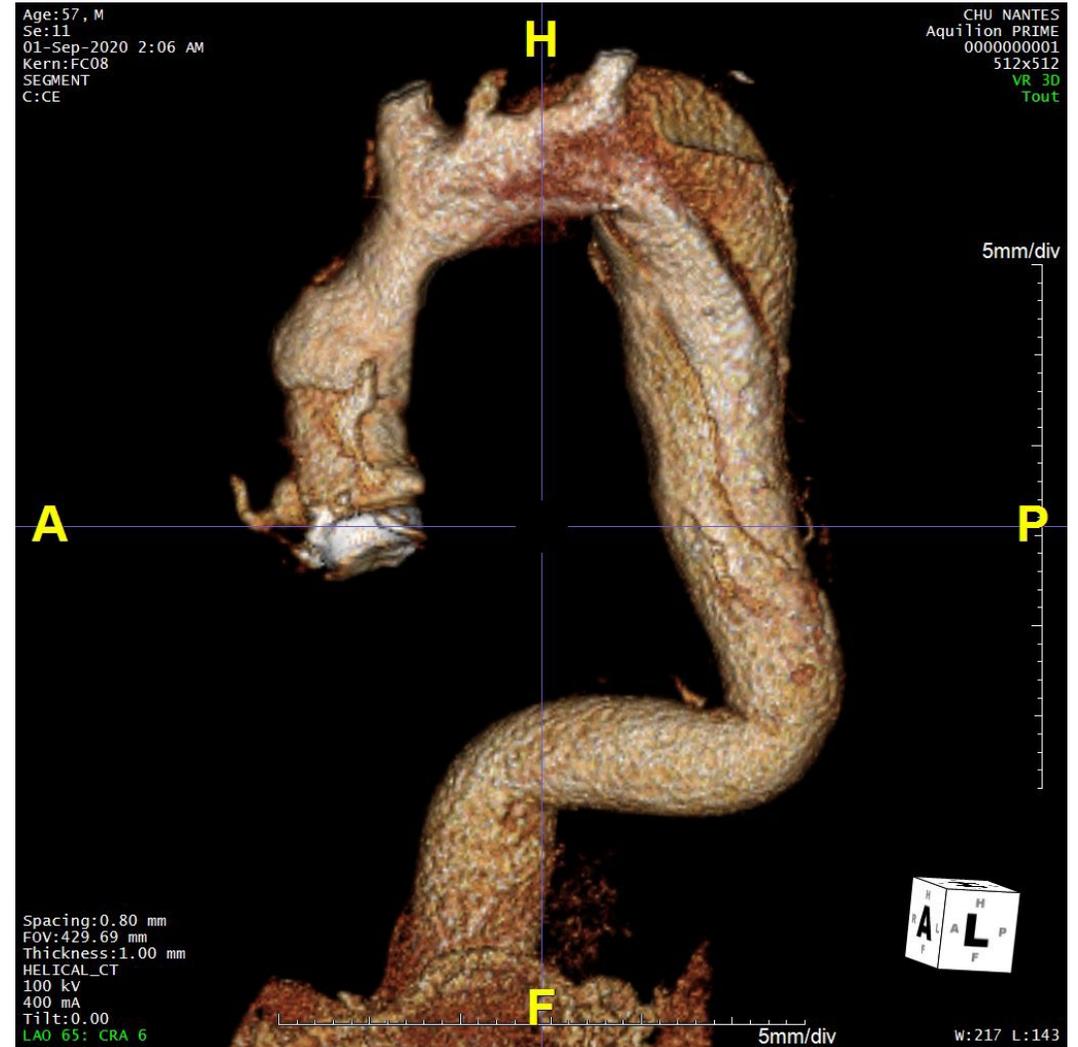
Davide Esposito ¹, Sarah Onida ², Benedict Turner ², Majd Rawashdeh ², Michael P Jenkins ², Raffaele Pulli ³, Alun H Davies ²

8 études / 196 patients / âge 78 ans / 70% T2EDL à 4 ans de l'EVAR

- Mortalité J30 5.3 %
- Complications à J30 13.4 %
- Récurrence d'endofuite 13 %
- Réintervention 7 %
- Echec de semi-conversion 5.5 %

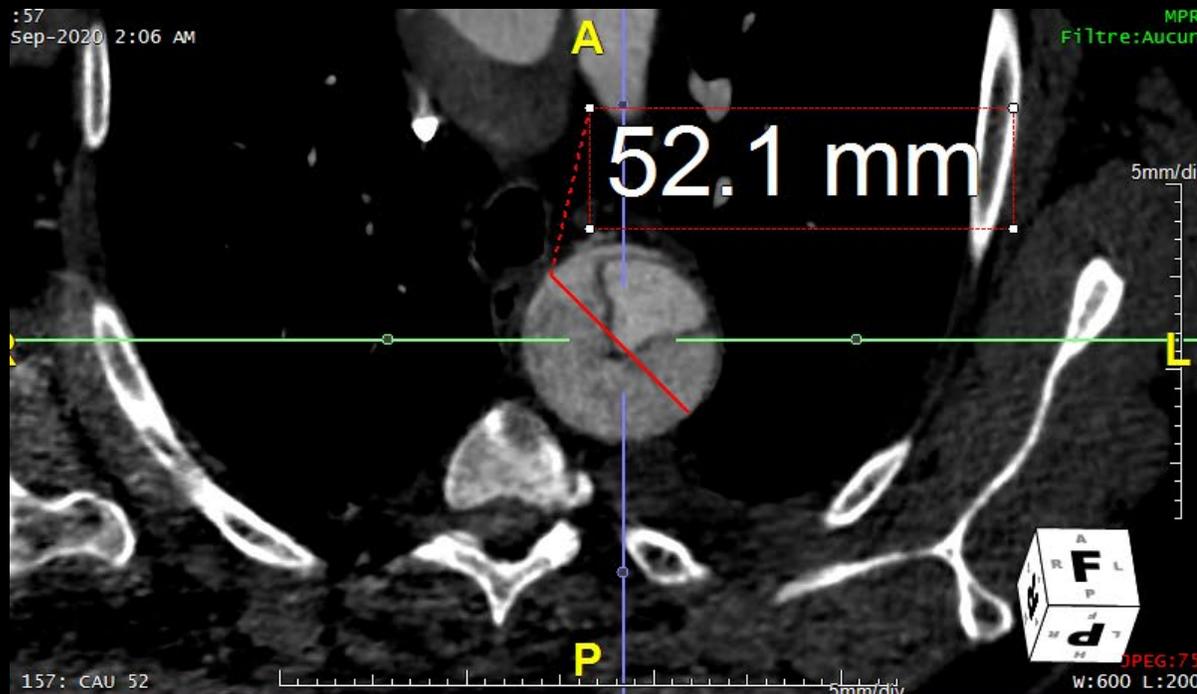
Cas : Homme / 57 ans / Syndrome de Marfan

- Sept 2020 : Dissection aortique type A en aval d'un Bentall mécanique
- ATCD :
 - Bentall mécanique (2006, anévrisme)
 - BPCO
 - Marfan
- 102Kg / 182cm / BMI: 30.8



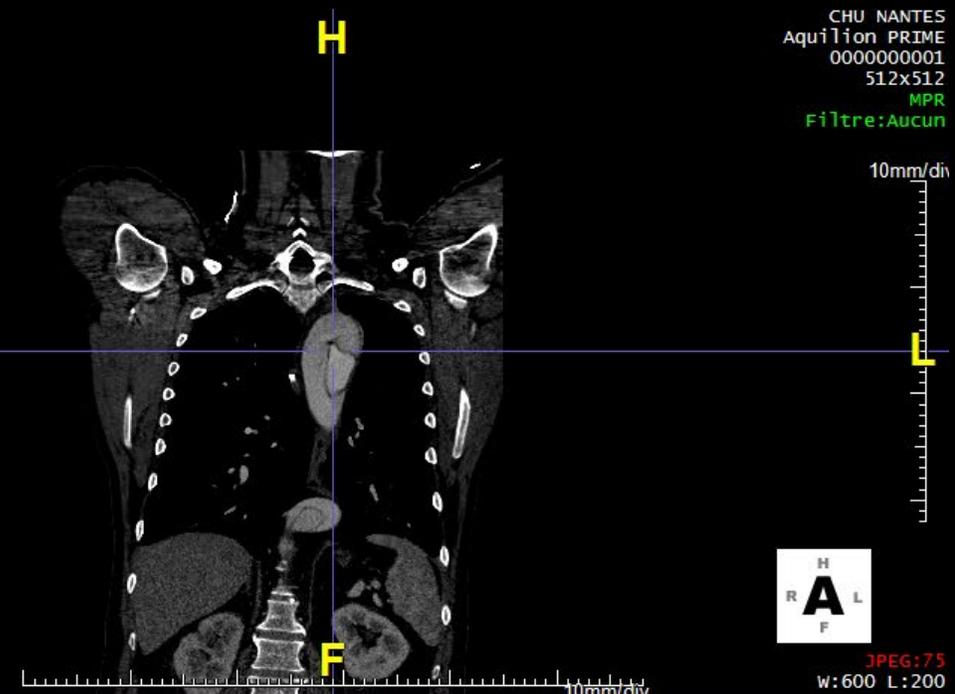


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Sep-2020 2:06 AM



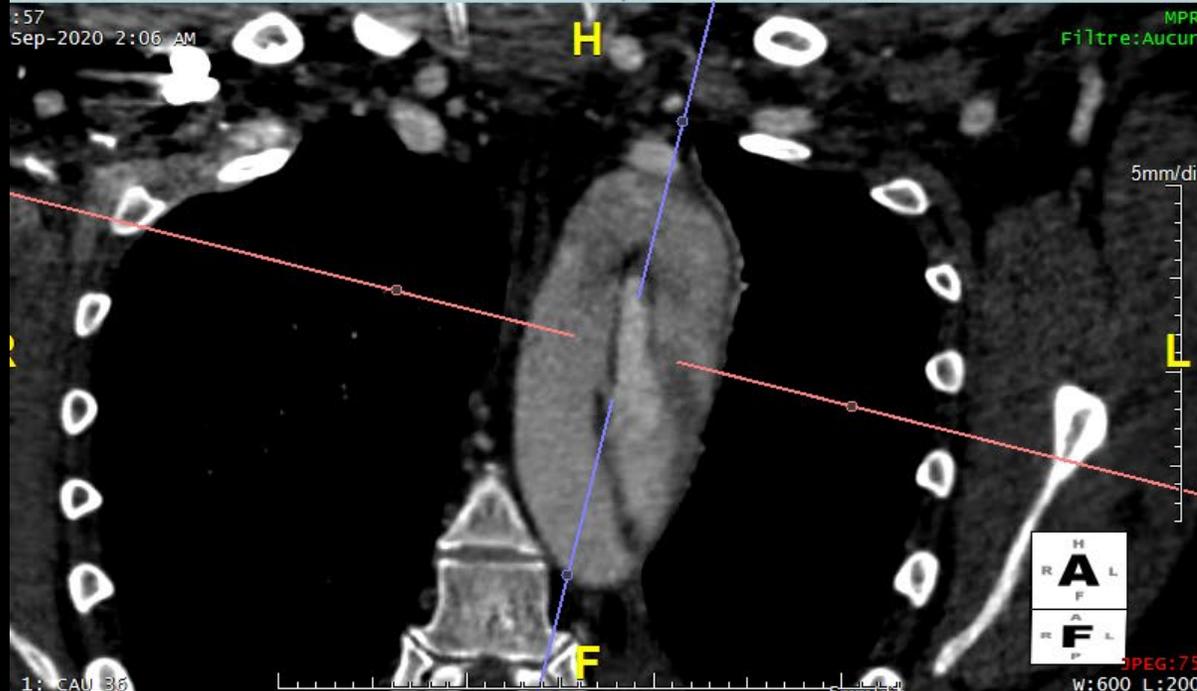
MPR
Filtre:Aucun
Age:57, M
Se:11
01-Sep-2020 2:06 AM
Kern:FC08
SEGMENT
C:CE

CHU NANTES
Aquilion PRIME
0000000001
512x512
MPR
Filtre:Aucun



Spacing:0.80 mm
FOV:429.69 mm
Thickness:1.00 mm
HELICAL_CT
100 kv
400 mA
Tilt:0.00
LAO 0: CRA 0

:57
Sep-2020 2:06 AM



MPR
Filtre:Aucun
Age:57
01-Sep-2020 2:06 AM

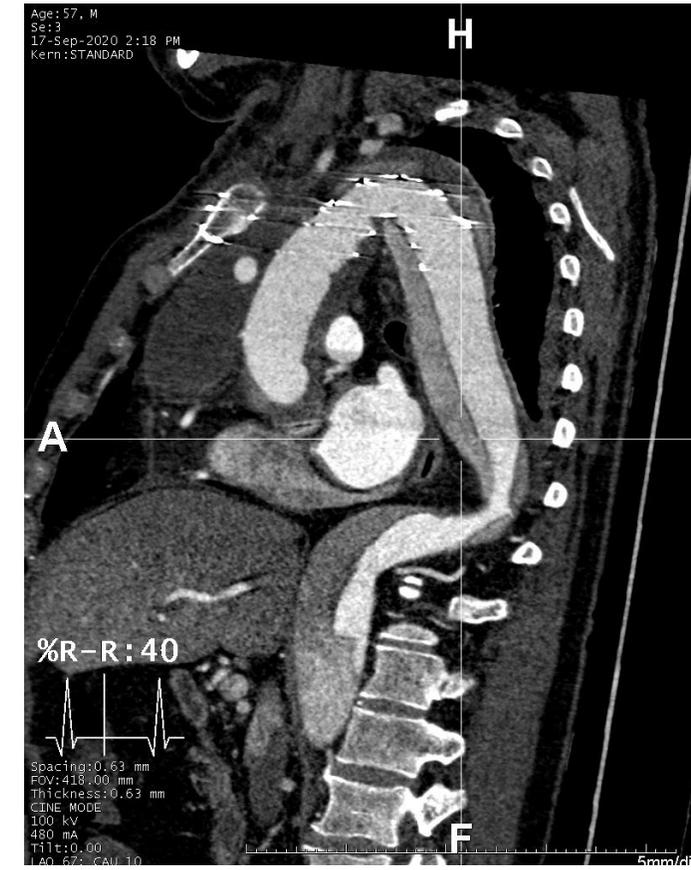
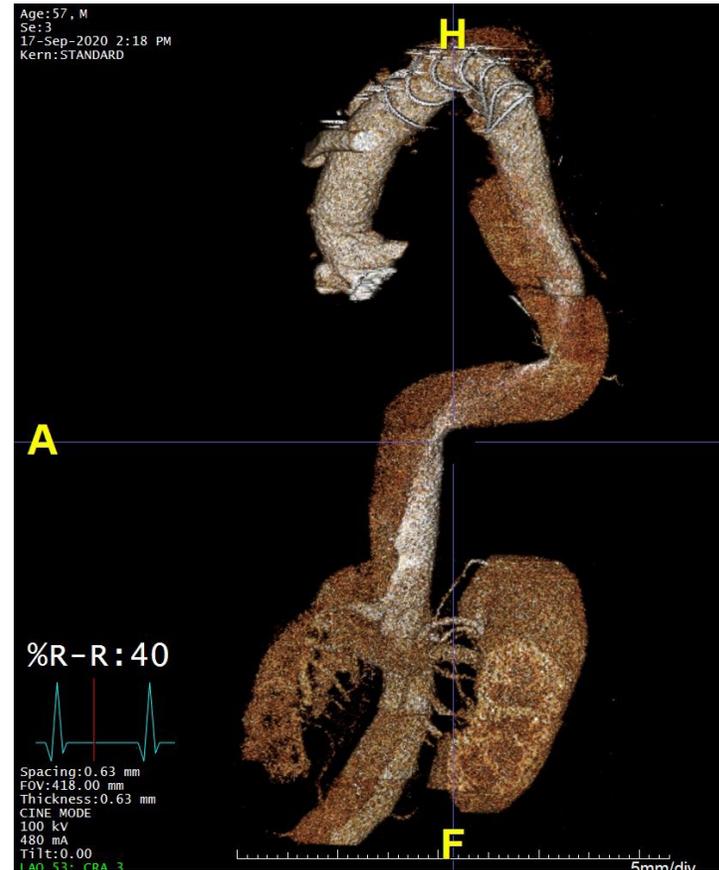
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HU:-127



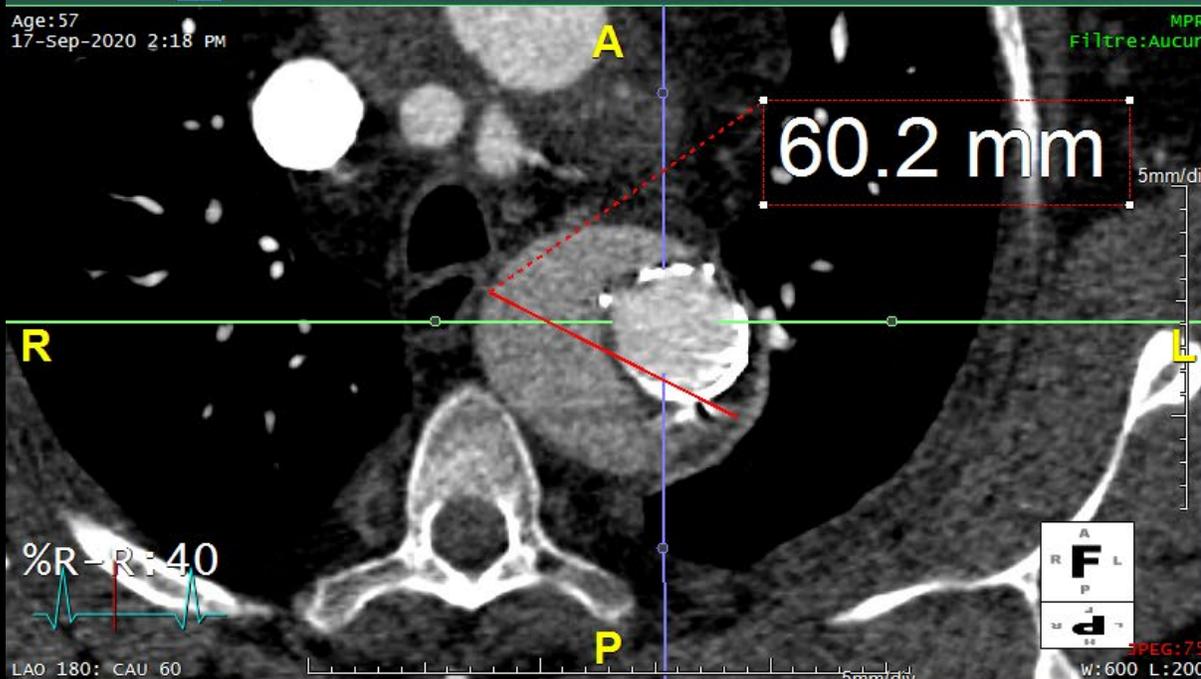
LAO 98: CAU 12

Chirurgies aortiques

- 1^{er} sept 2020 : FET en urgence



Age: 57
17-Sep-2020 2:18 PM



60.2 mm

MPR
Filtre:Aucun

R

%R-R: 40

LAO 180: CAU 60



SPEG:75
w: 600 L: 200

Age: 57, M
Se: 3
17-Sep-2020 2:18 PM
Kern: STANDARD

POST OP + 10 MM

NORD LAENNEC
Optima CT660
SCAN
512x512
MPR
Filtre:Aucun

A

%R-R: 40

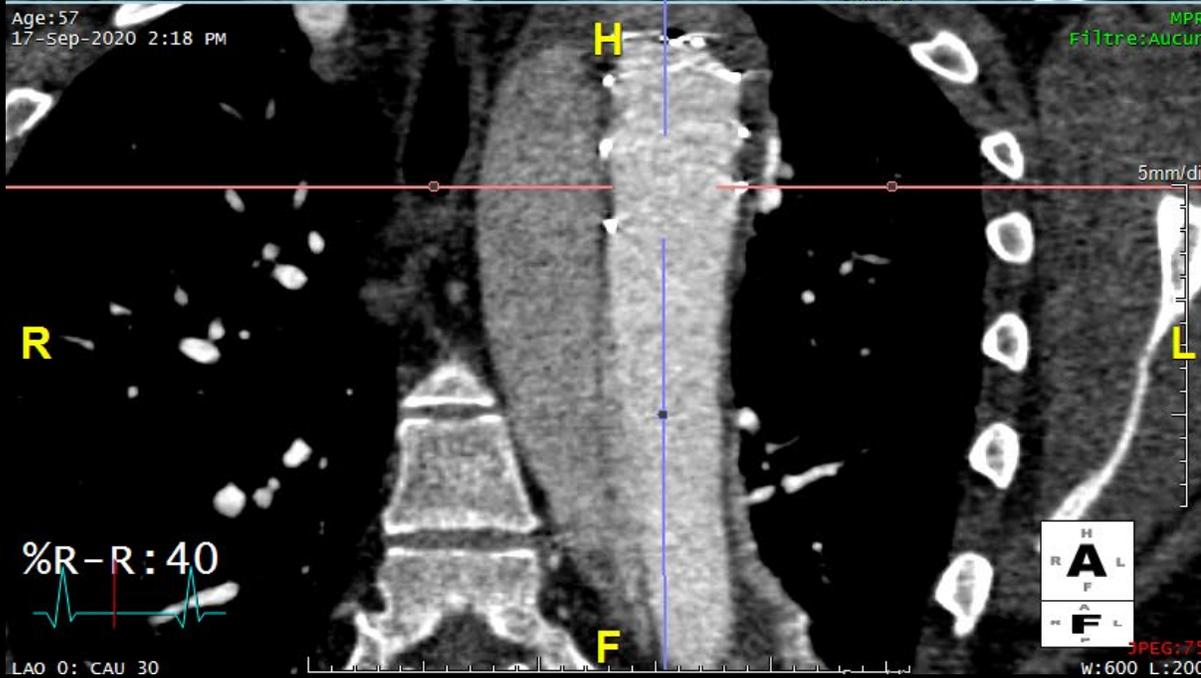
Spacing: 0.63 mm
FOV: 418.00 mm
Thickness: 0.63 mm
CINE MODE
100 kv
480 mA
Tilt: 0.00

LAO 67: CAU 10



SPEG:75
w: 600 L: 200

Age: 57
17-Sep-2020 2:18 PM



R

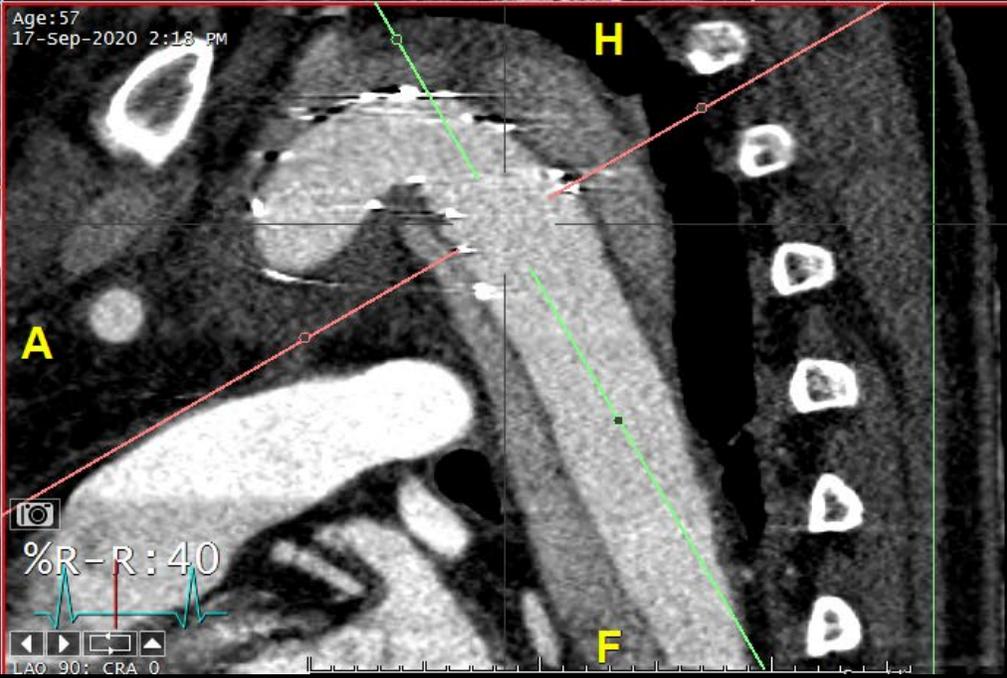
%R-R: 40

LAO 0: CAU 30



SPEG:75
w: 600 L: 200

Age: 57
17-Sep-2020 2:18 PM



A

%R-R: 40

LAO 90: CRA 0



SPEG:75
w: 600 L: 200

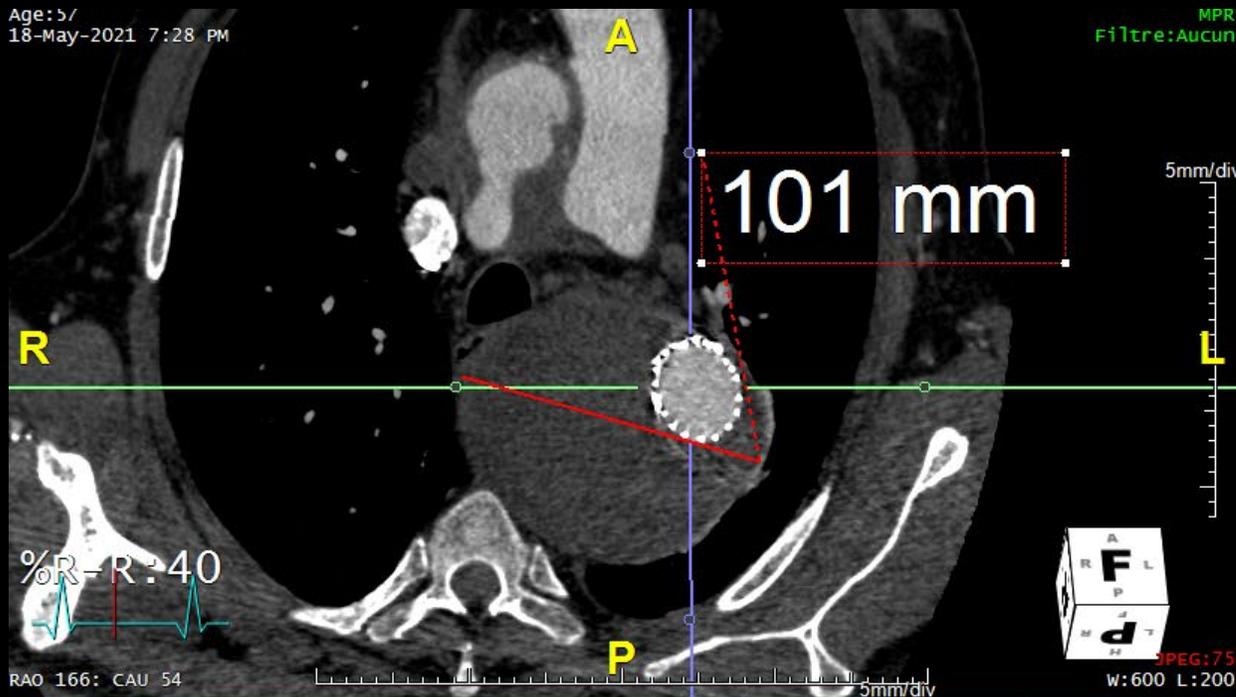
MPR
Filtre:Aucun
HU: -906

Chirurgies aortiques

- 1^{er} Sept 2020 : FET repair
- 30 Sept 2020 : TEVAR + Candy plug



Age: 57
18-May-2021 7:28 PM



101 mm

%R-R: 40

RAO 166: CAU 54

MPR
Filtre:Aucun

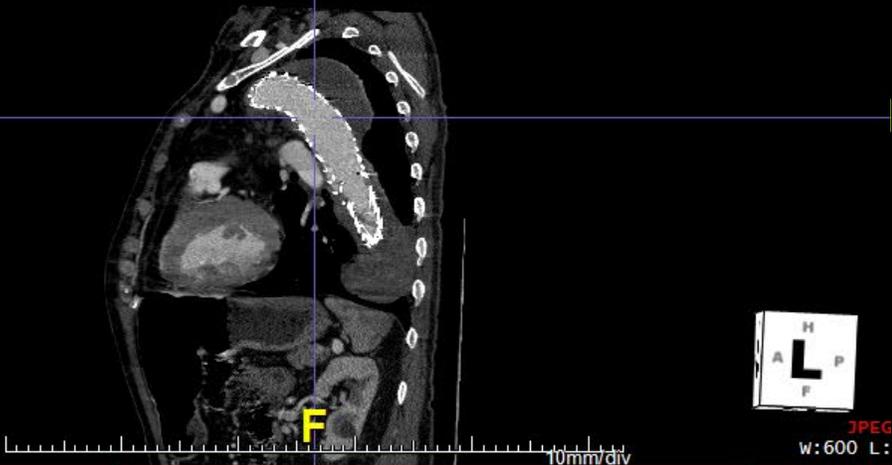
Age: 57, M
Se: 3
18-May-2021 7:28 PM
Kern: STANDARD

6 MOIS + 50 MM

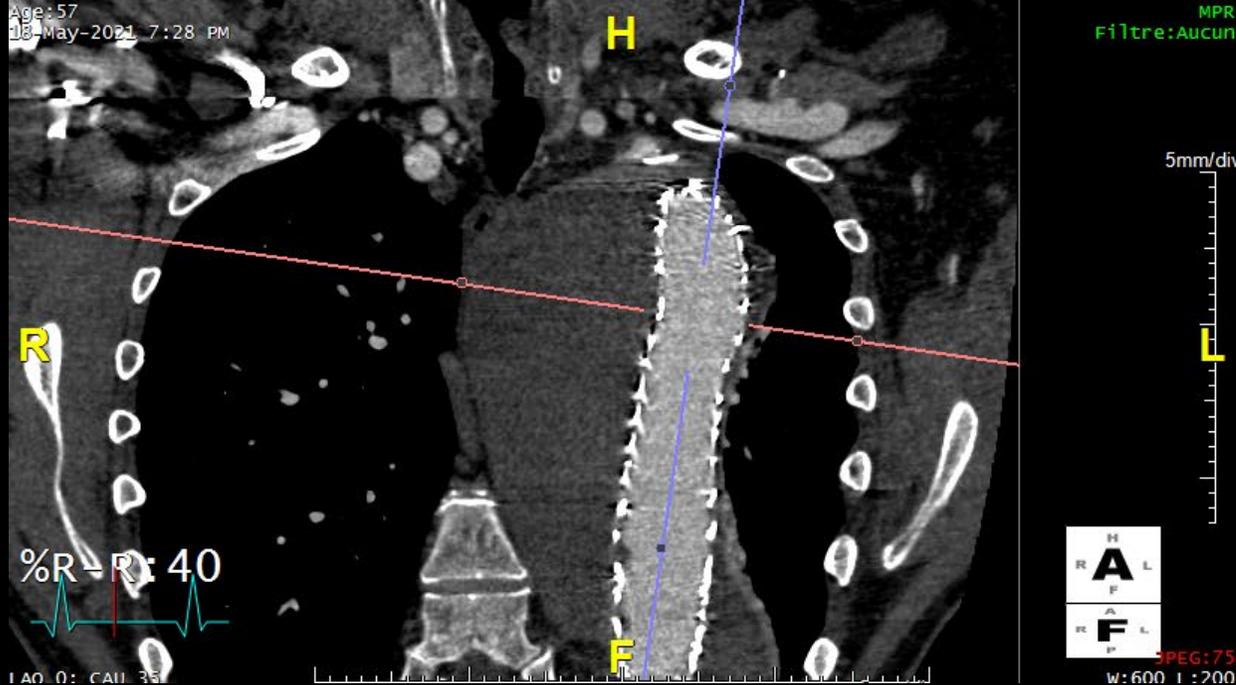
HOP NORD LAEN
Optima CT
S
512X
Filtre:AU
10ml

%R-R: 40

Spacing: 0.63 mm
FOV: 354.00 mm
Thickness: 0.63 mm
CINE MODE
120 kv
480 mA
Tilt: 0.00
LAO 85: CAU 2



Age: 57
18-May-2021 7:28 PM



%R-R: 40

LAO 0: CAU 35

MPR
Filtre:Aucun

Age: 57
18-May-2021 7:28 PM



%R-R: 40

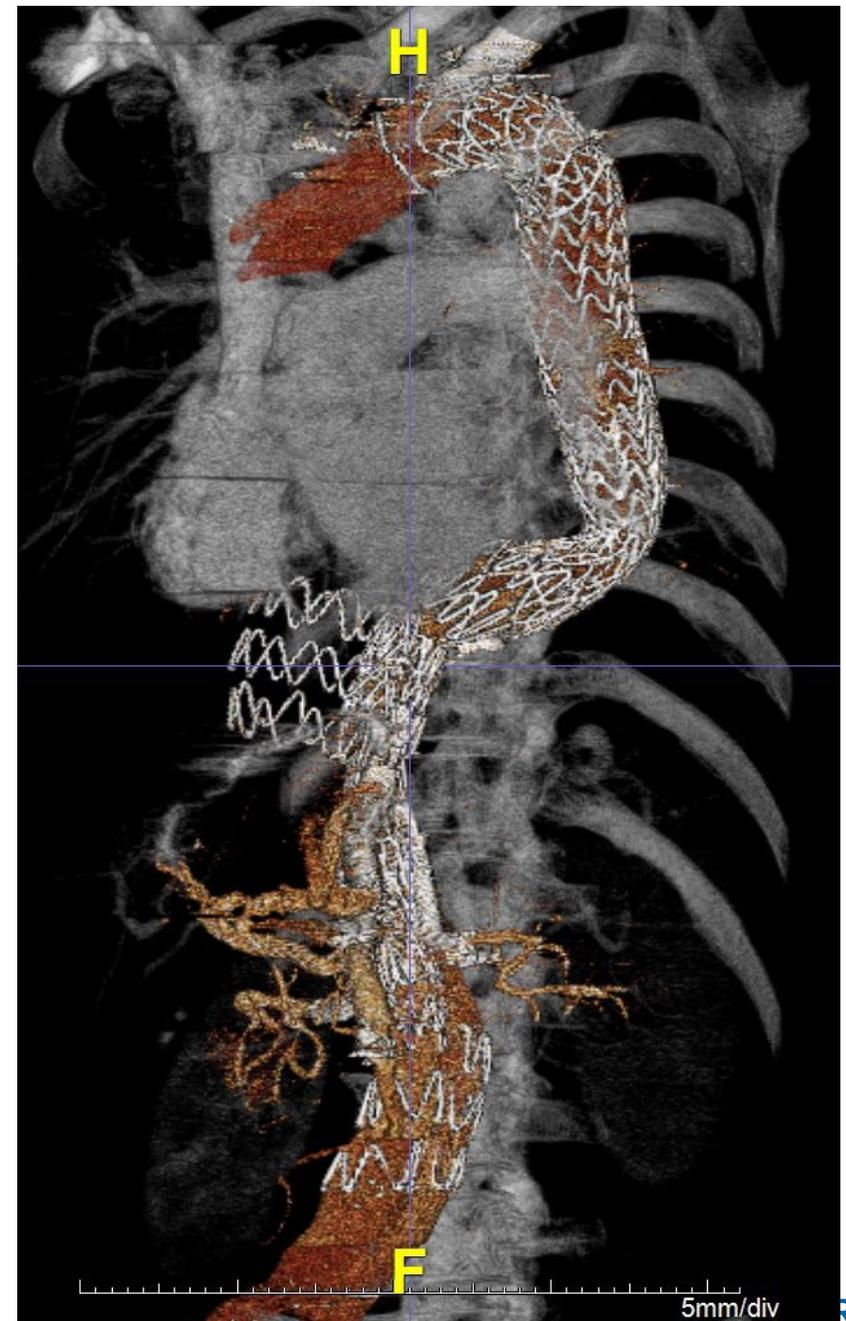
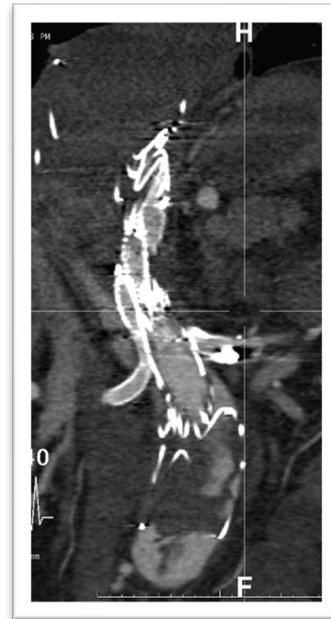
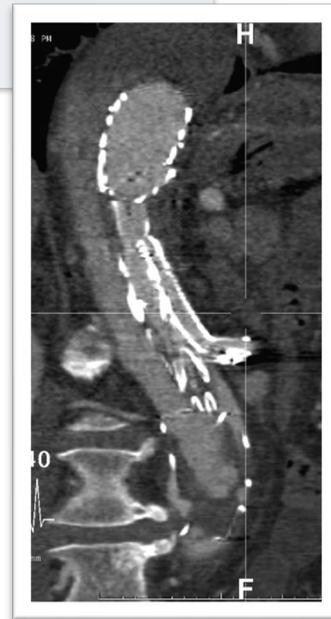
LAO 95: CAU 7

Filtre:AU
HU: -1

JPEG
w: 600 l: 1

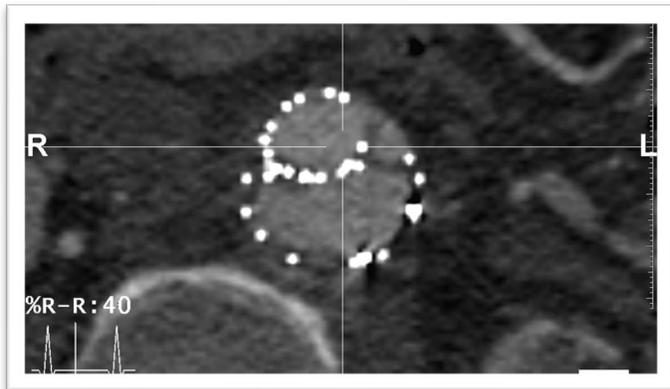
Chirurgies aortiques

- 1st Sept 2020 : FET repair
- 30 Sept 2020 : TEVAR + Candy plug
- 4 Juin 2021 : t-branch + Candy plug abdo + embolisation FL AMS + ARG



Chirurgies aortiques

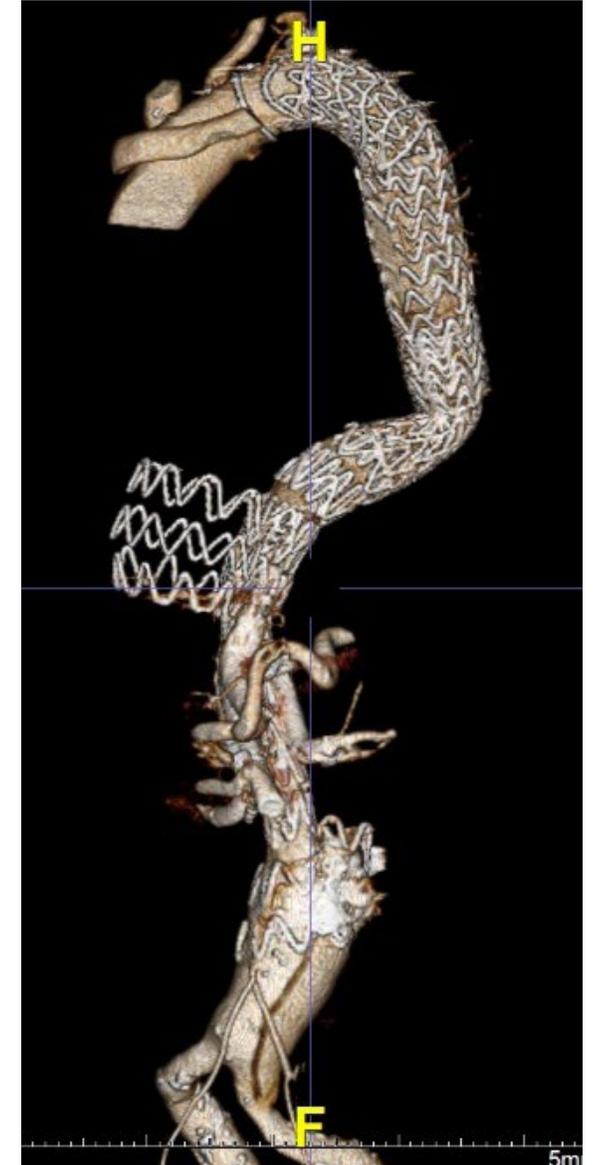
- 1st Sept 2020 : FET repair
- 30 Sept 2020 : TEVAR + Candy plug
- 4 Juin 2021 : t-branch + Candy plug
- 7 Juill 2021 : embolisation gouttières

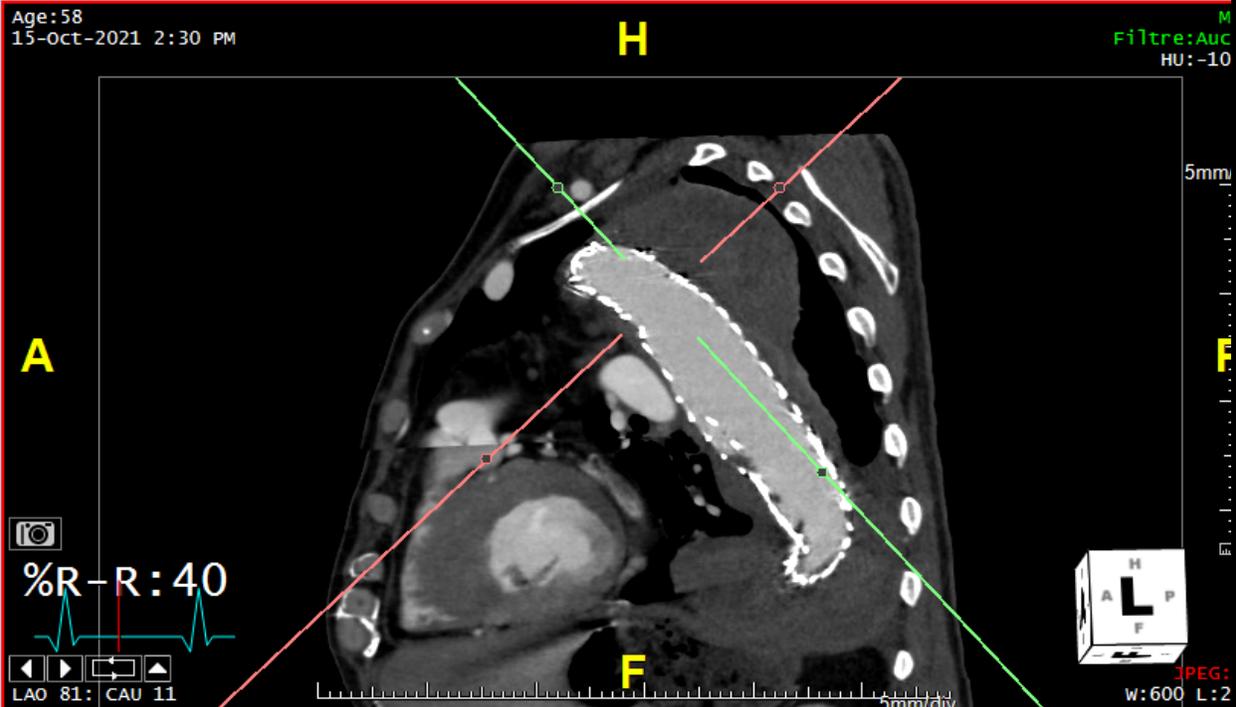
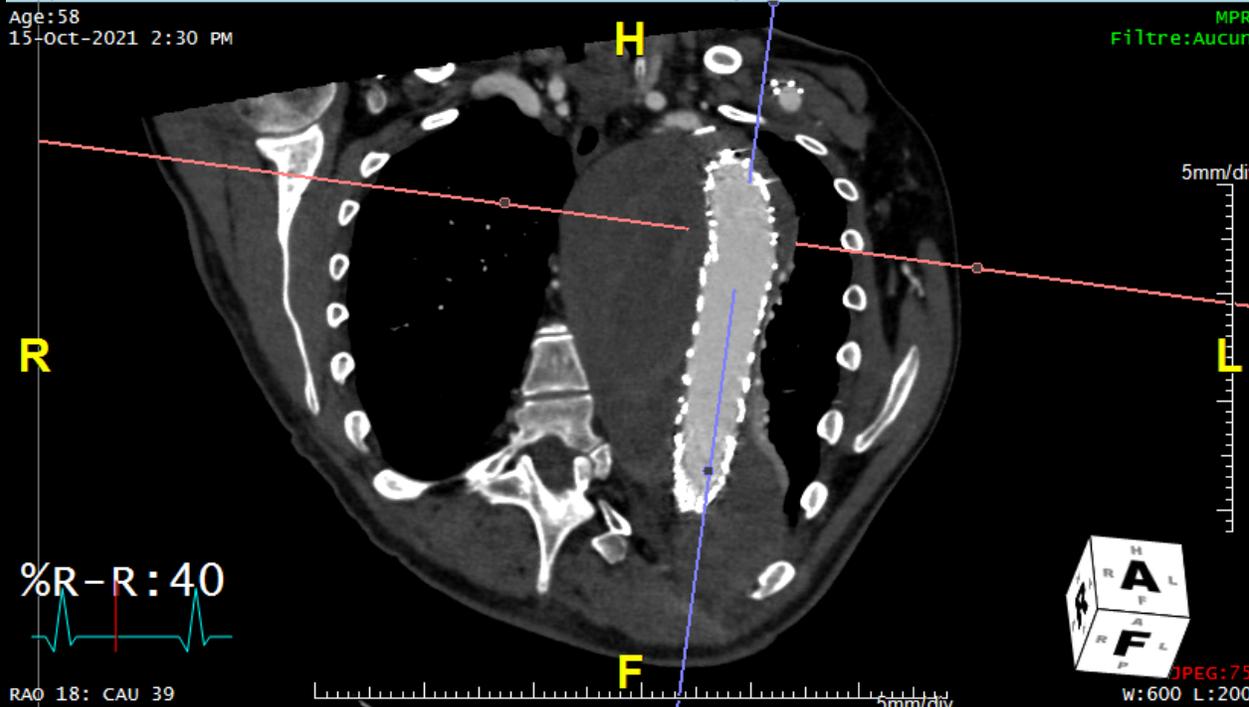
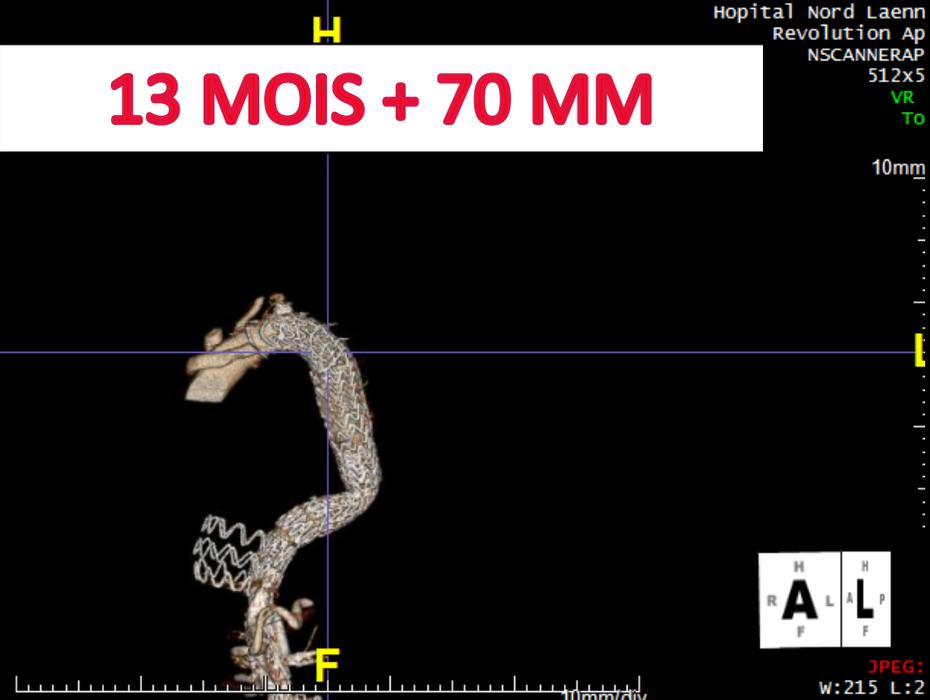
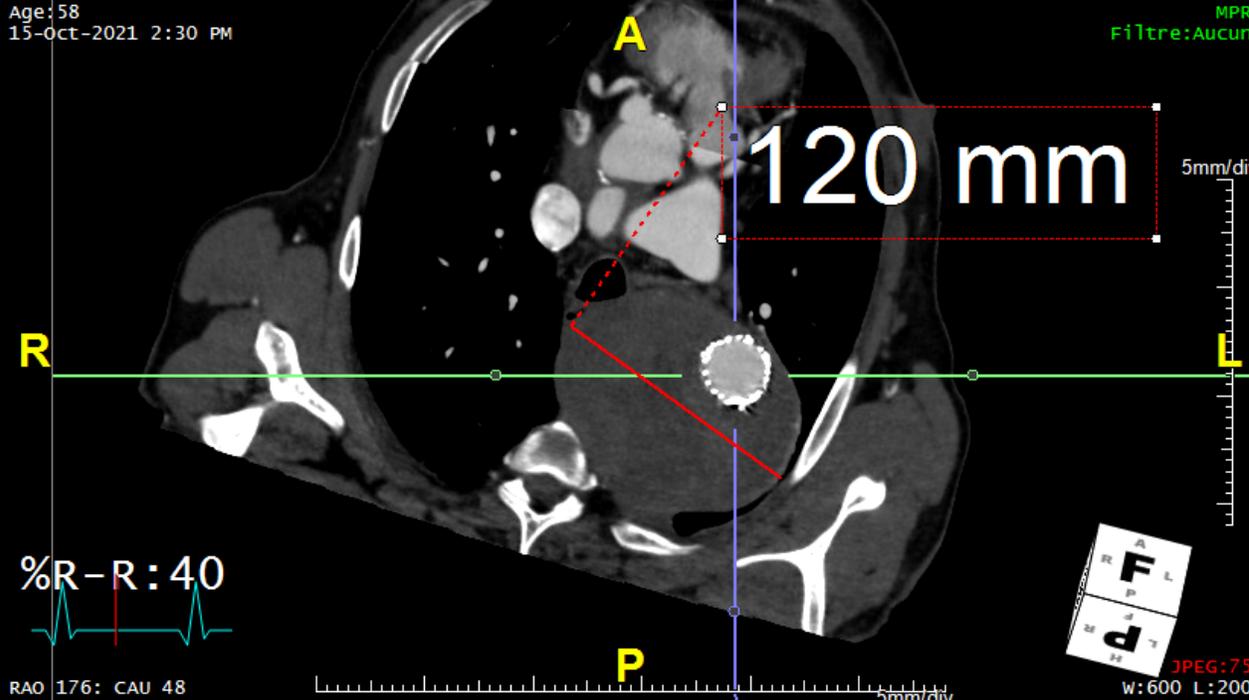


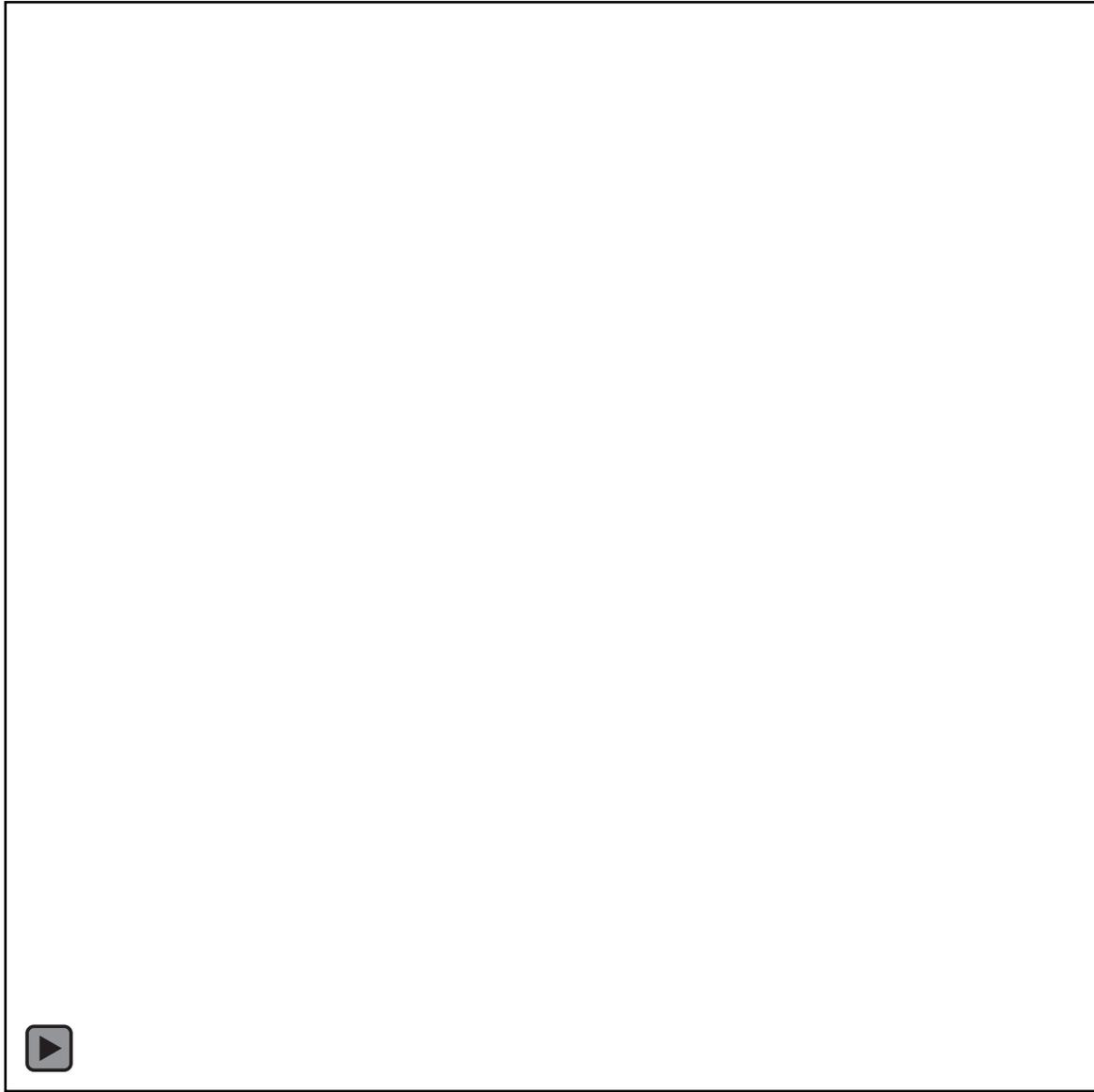
PRE



POST

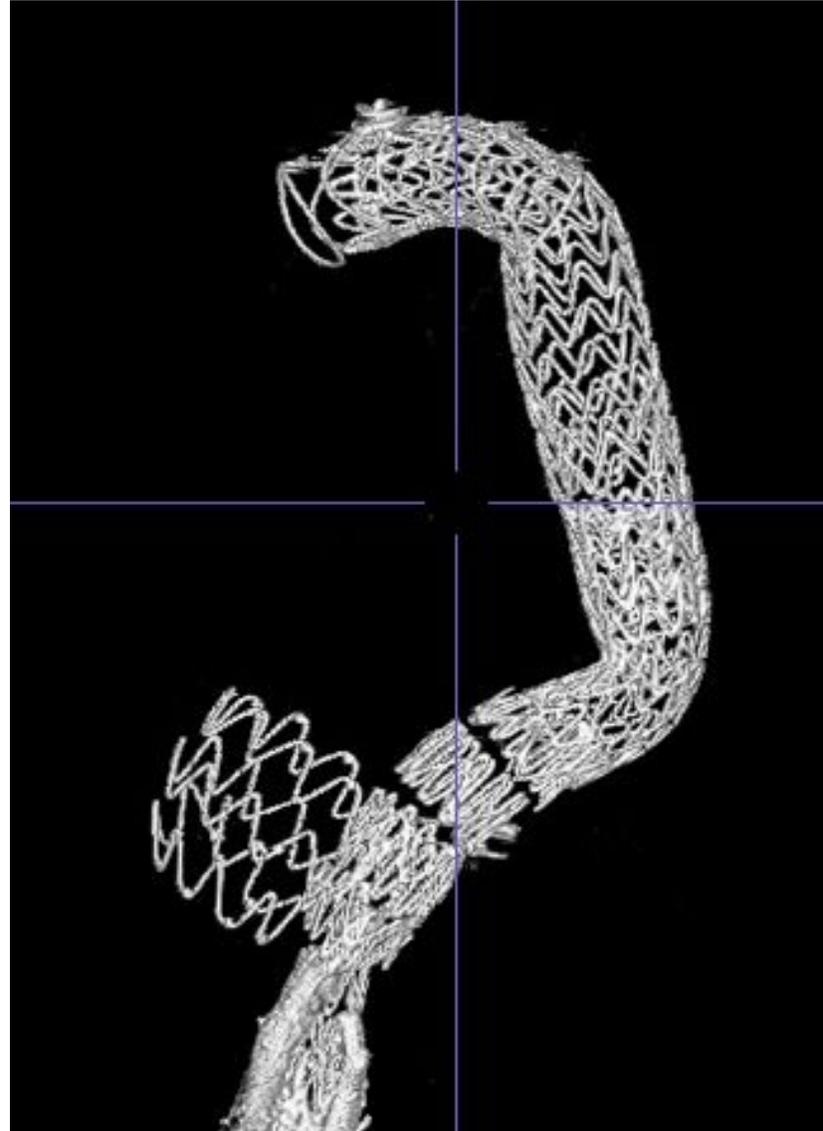






Stratégie = semi-conversion avec préservation des endoprothèses

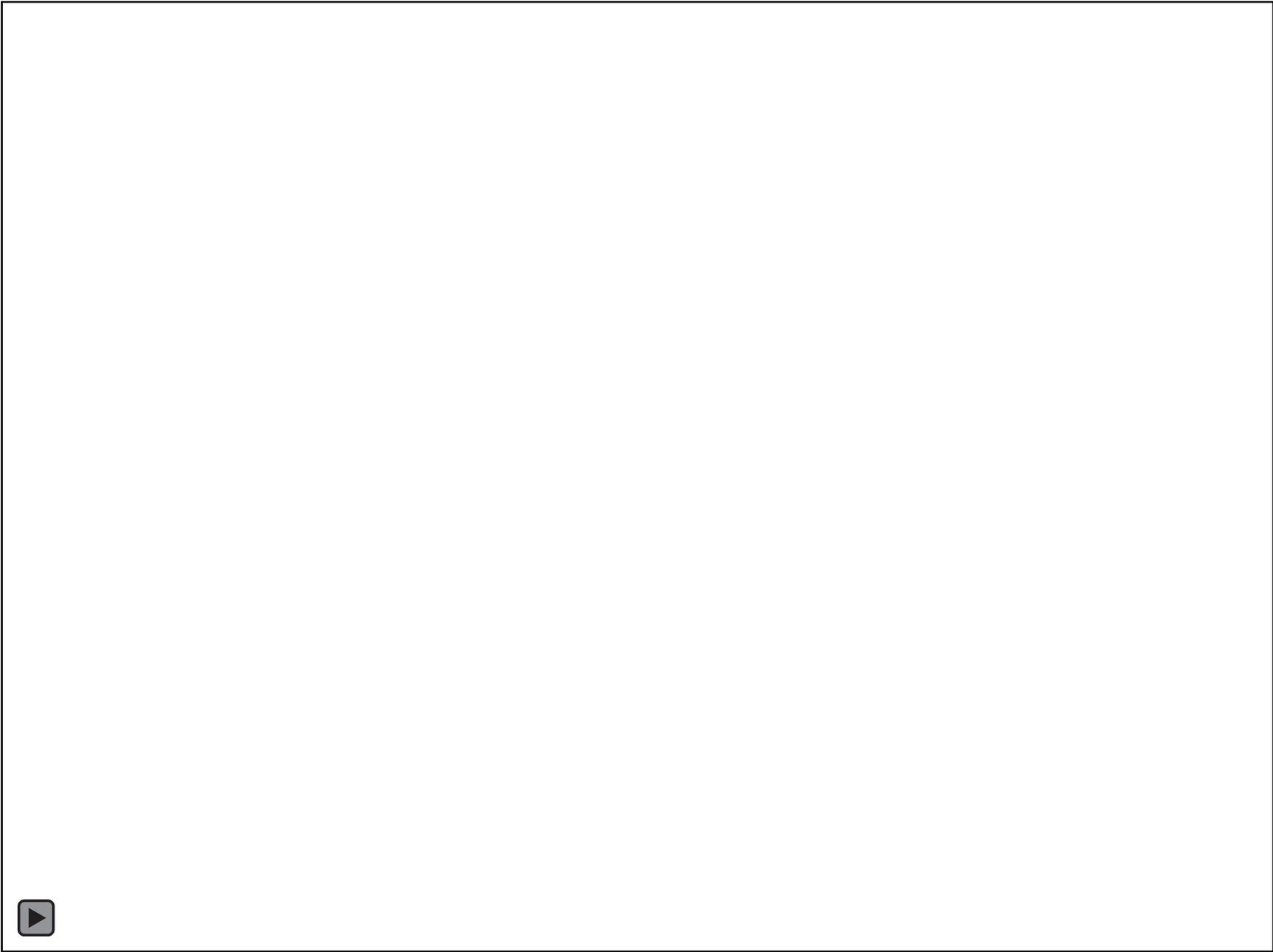
- Double couche d'EDP thoraciques



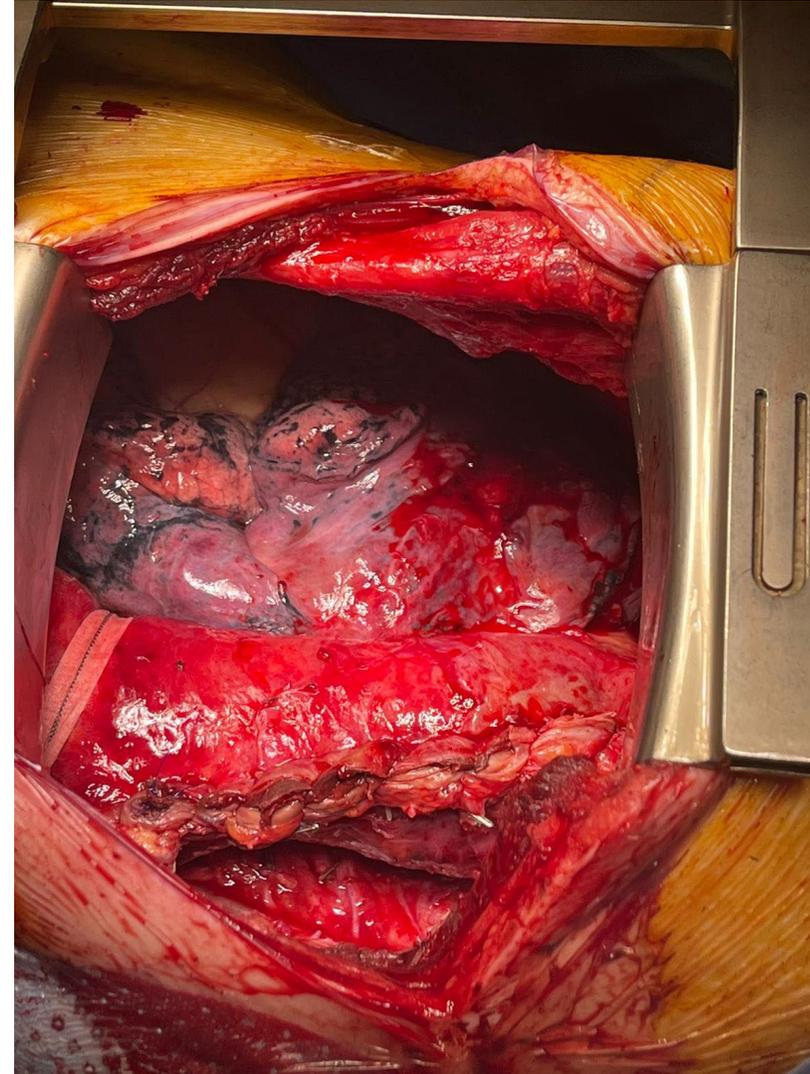
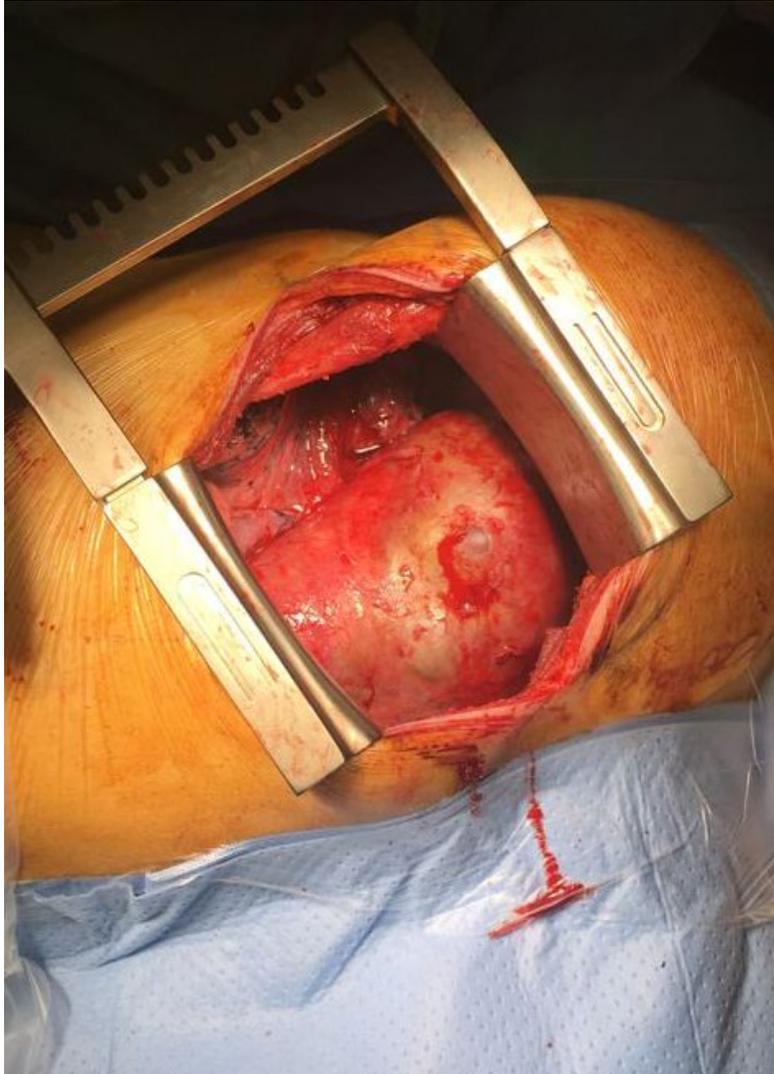
Thoraco gauche 5^e espace

- AG + sélective
- Décubitus latéral droit avec billot
- Incision de 20 cm dans le 5e espace IC
- Equipe chirurgicale vasculaire + cardiothoracique
- Pas de CEC

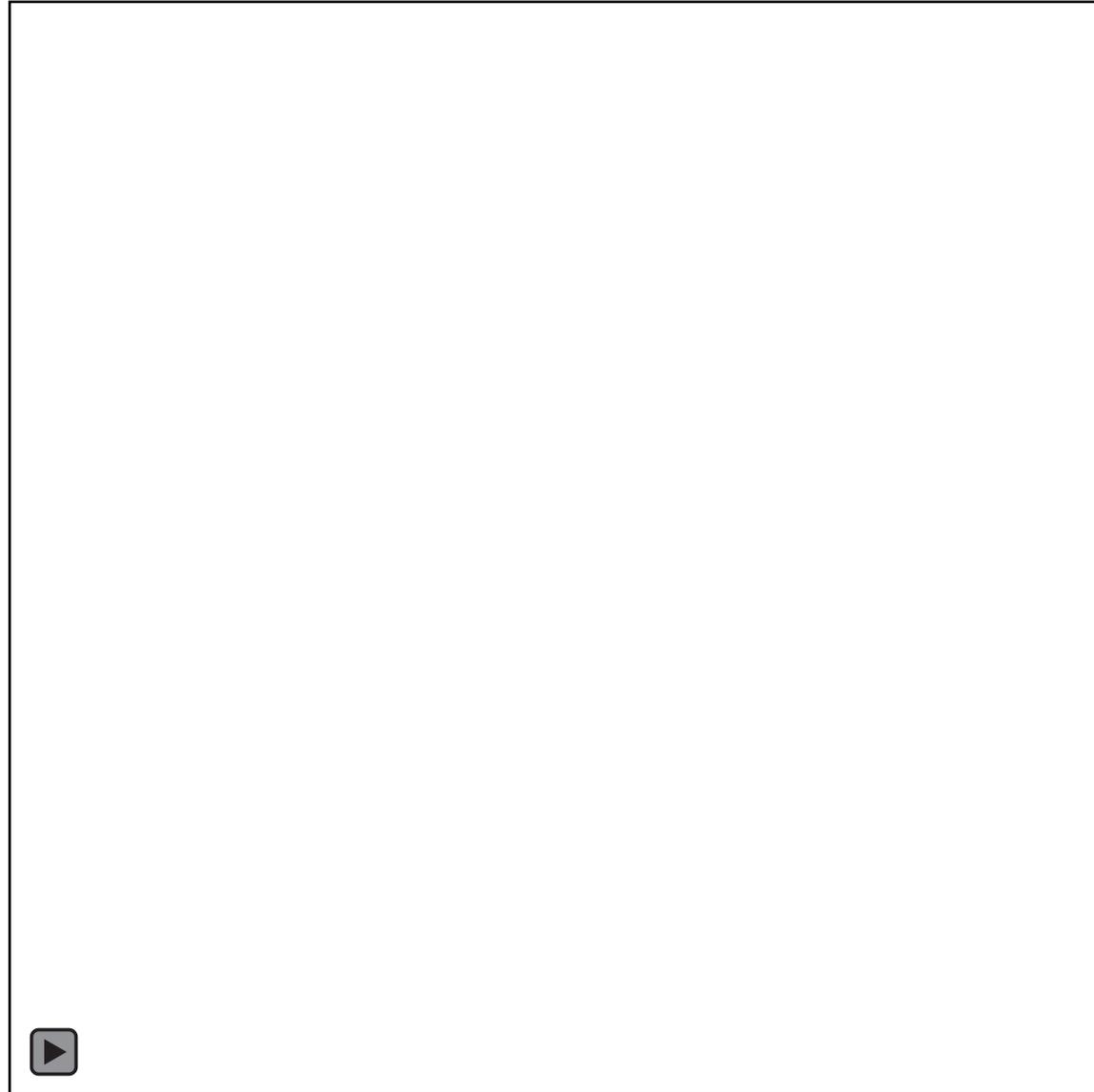




Banding en amont et en aval de la zone si dissection



Angio-TDM à 2 ans



Open Aneurysmorrhaphy Following Branched and Fenestrated Endovascular Repair of Complex Thoracic Aneurysms

Florent POREZ, Dominique FABRE, Blandine MAUREL, Stéphan HAULON and al

This study demonstrates that thoracic aneurysmorrhaphy performed after TEVAR and FBEVAR for complex thoracic aneurysms is a safe and effective technique. This procedure allows the eradication of endoleaks and an immediate sac volume reduction, which prevents aorta-bronchial or esophageal fistulation and secures the endovascular repair; the reduction of the aneurysm mass effect restores normal lung parenchyma expansion. This hybrid management strategy drastically reduces the morbidity associated with standard open surgery performed for thoracic endograft explantation.

HÔPITAUX Paris
Saint-Joseph
Marie-Lannelongue



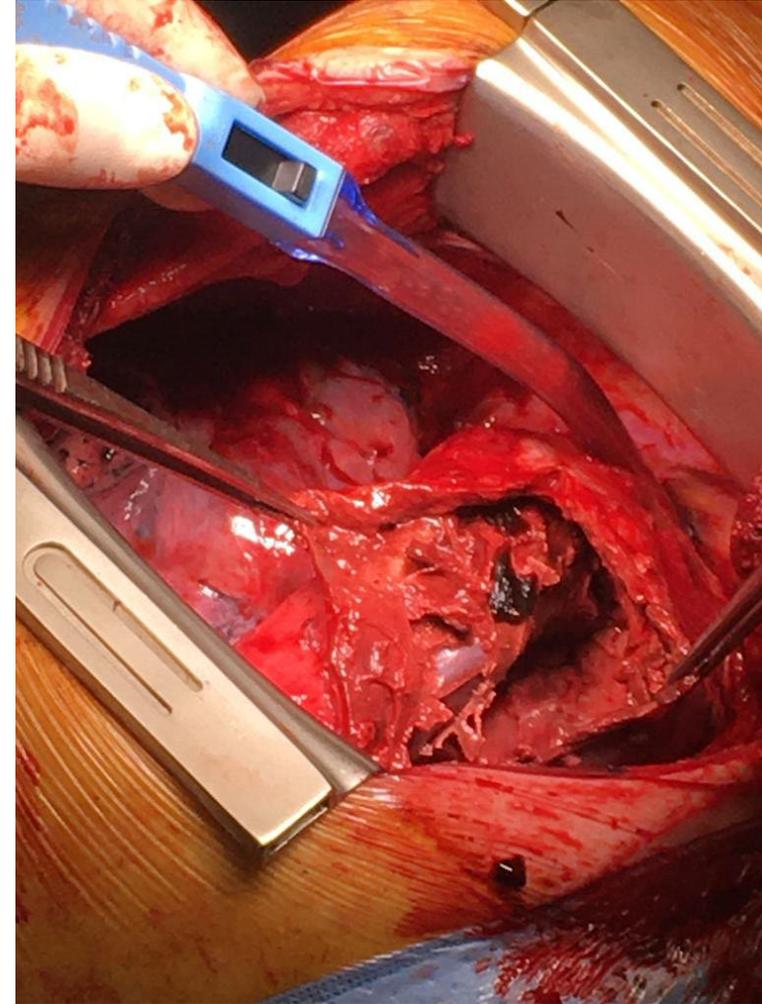

CHU
NANTES

Résultats de la semi-conversion à l'étage thoracique

- 2017 - 2024
- Bicentrique : 12 patients
- Aneurysmorrhaphy après TEVAR +/- F/BEVAR
 - ❖ 3 pts avec sac > 100 mm (*exp pulm, reduction du risque fistulisation à l'oesophage*)
 - ❖ 9 patients avec endotension ou type II + sac > 80 mm
- Age = 60 ± 12 ans
- 4 Marfan
- 50% sous AVK
- 58% chir crosse

Résultats de la semi-conversion à l'étage thoracique

- Réa = 3,5 j
- Hospi = 14 j
- Survie à J30 = 100 %
- Suivi moyen 21 mois :
 - 2 DC (COVID + HIC sur AVK)
 - 0 DC lié à l'aorte
- 100% regression de sac
- 1 pt avec évolution distale
- 2 réint précoce (hémostase et embol FL) et 2 tardives (évolution distale)



Merci



l'institut du thorax
Nantes, France

