

**CARDIO
RUN
2024**

**16^{eme} CONGRÈS DE PATHOLOGIE
CARDIO-VASCULAIRE**

18-19-20 SEPTEMBRE 2024

Hôtel Saint Alexis **ILE DE LA RÉUNION** France



CARDIORUN.ORG

Anevrysmes complexes et thoraco abdominaux

M Guillou, JM Radoux, R Renard, P Guiraudet, JM Gagliardi

cardio run 20 septembre 2024

Complexes

- Palette Viscerale
- Retentissement hémodynamique du clampage
- Saignement
- Morbidité: cardiac events/ pulmonary events/ wound complications

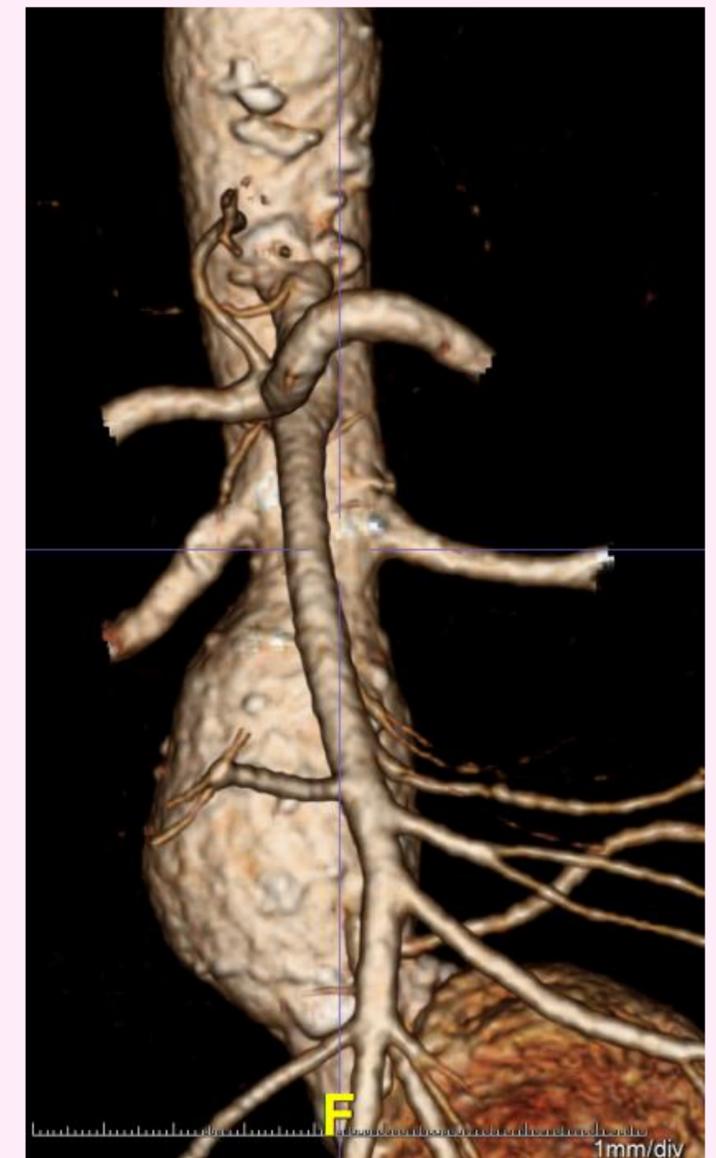
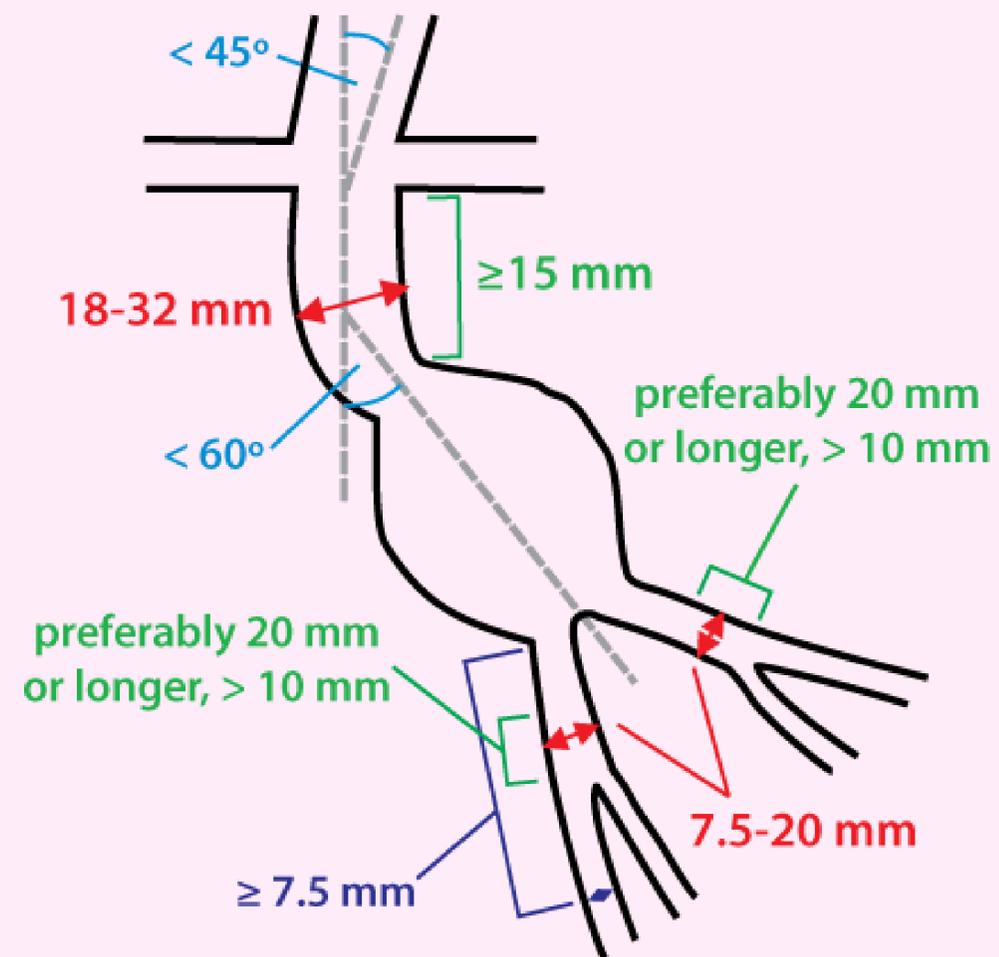
Tsilimparis et Al. Ann Vasc Surg 2013

Schanzer et Al. J Vasc Surg 2017

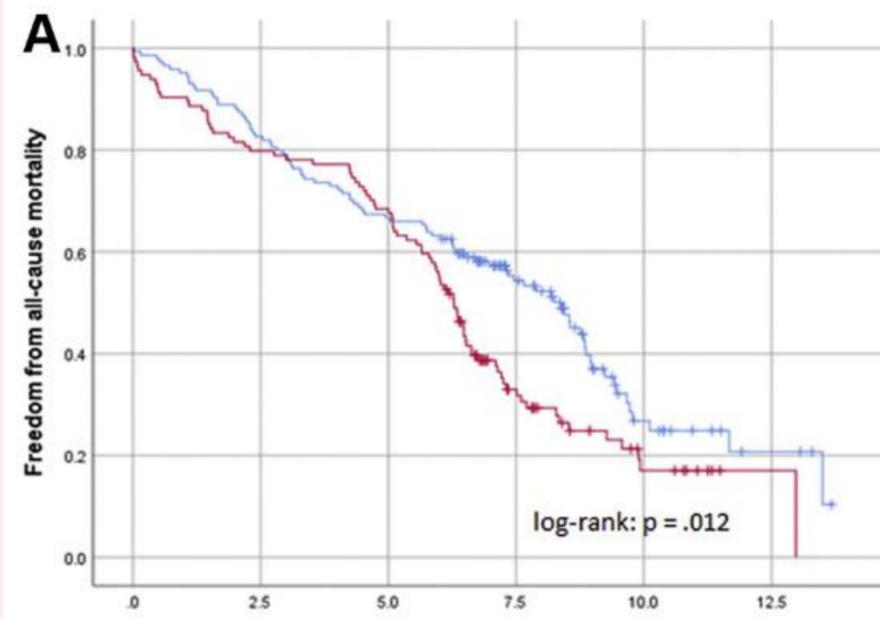
Zlatanovic et Al. Eur J Vasc Endovasc Surg 2023

AAA

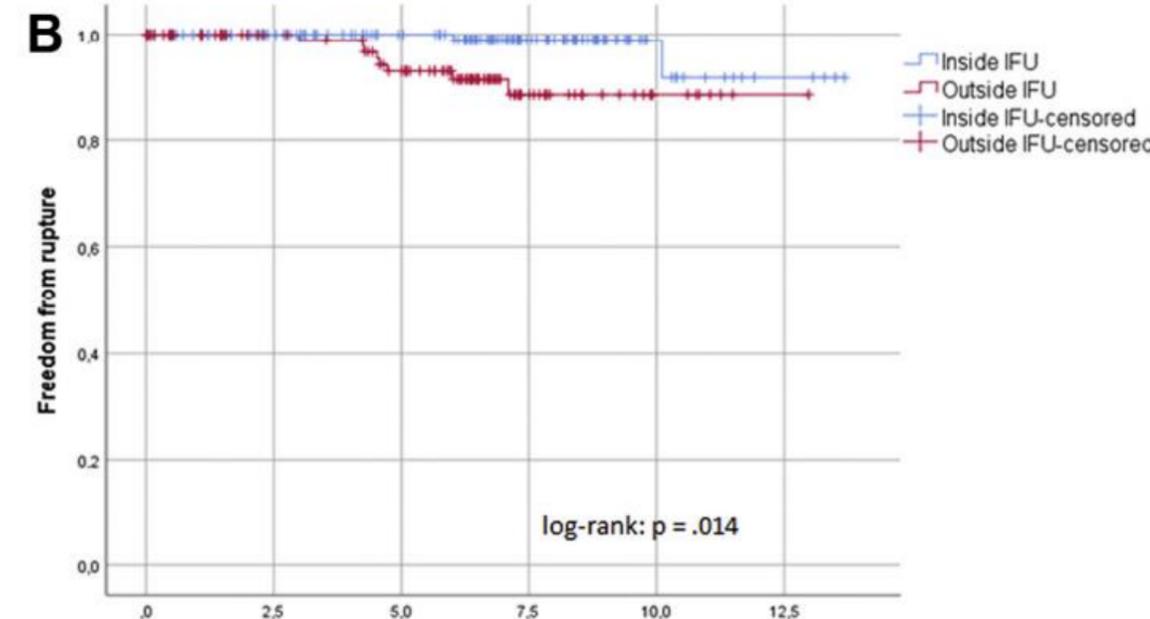
- TTT endovasculaire contre indiqué chez 30 à 50% des malades
- 2/3 lié au collet



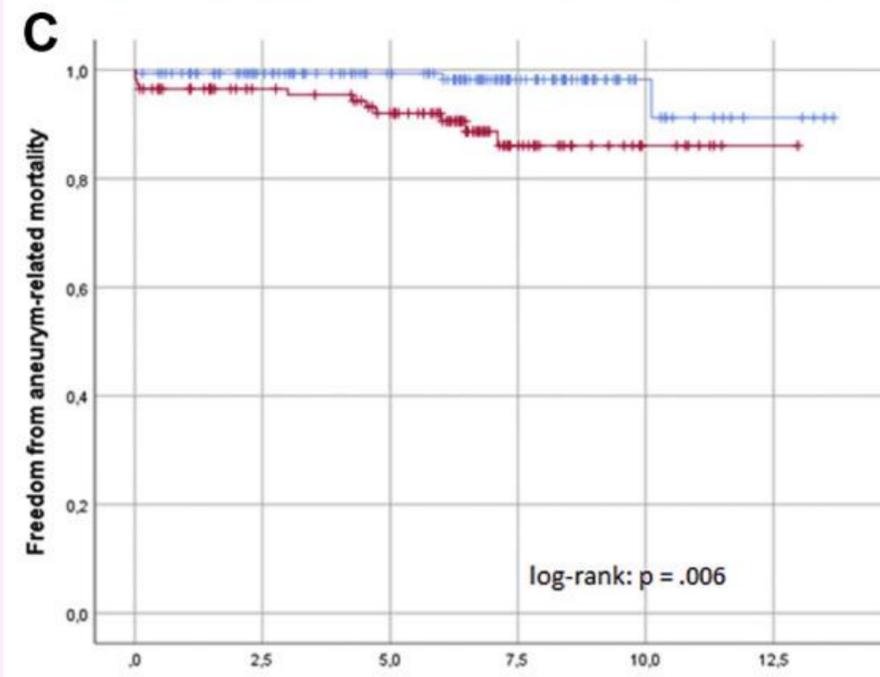
- respect des indications+++
- conditions anatomiques
- impact sur
 - mortalité toutes causes
 - mortalité liée à AAA
 - rupture
 - complications liées à l'endoprothese



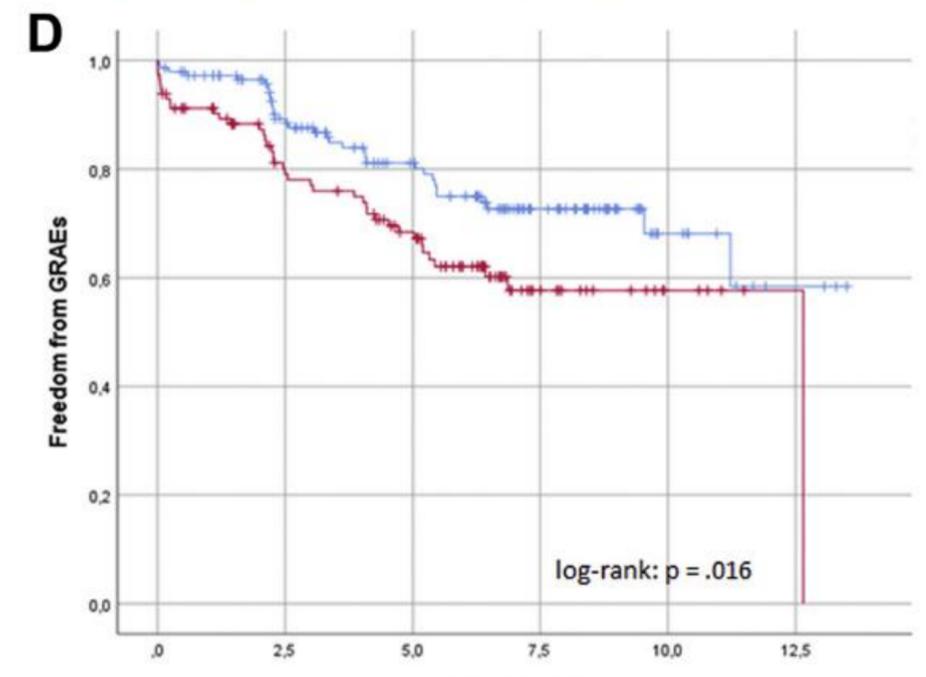
	Time (years)					
Year	0.0	2.5	5.0	7.5	10.0	12.5
Inside IFU, patients at risk	144	119	96	55	14	4
Outside IFU, patients at risk	114	91	78	27	8	1



	Time (years)					
Year	0.0	2.5	5.0	7.5	10.0	12.5
Inside IFU, patients at risk	144	119	96	55	14	4
Outside IFU, patients at risk	114	91	76	25	7	1



	Time (years)					
Year	0.0	2.5	5.0	7.5	10.0	12.5
Inside IFU, patients at risk	144	119	96	55	14	4
Outside IFU, patients at risk	114	91	78	27	8	1



	Time (years)					
Year	0.0	2.5	5.0	7.5	10.0	12.5
Inside IFU, patients at risk	144	107	80	46	11	3
Outside IFU, patients at risk	114	76	58	17	5	1

Fig. Freedom from all-cause mortality **(A)**, rupture **(B)**, aneurysm-related mortality **(C)**, and graft-related adverse events (GRAEs) for patients treated within (*blue line*) and outside (*red line*) the instructions for use (*IFU*).

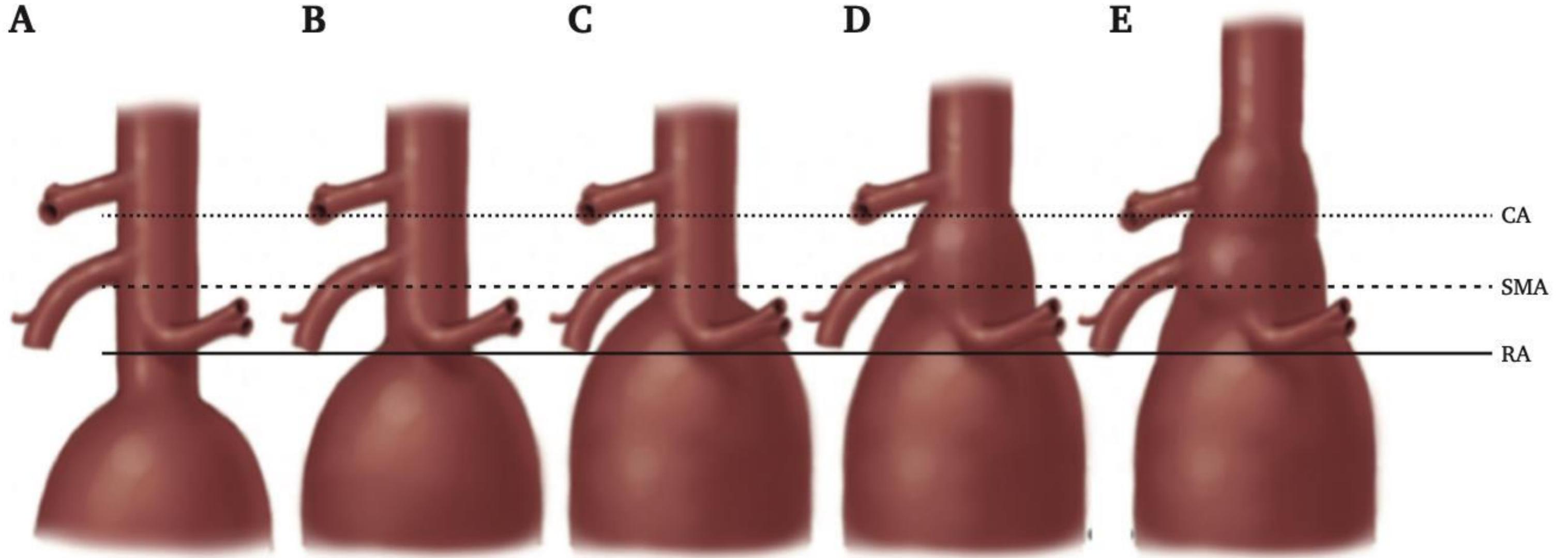


Figure 8. Anatomical classification of complex abdominal aortic aneurysms (AAAs) based on the proximal extensions of the aneurysm and their relationship with the renal arteries (RAs), the superior mesenteric artery (SMA), and the coeliac artery (CA). (A) Short neck infrarenal AAA. (B) Juxtarenal AAA. (C) Pararenal AAA. (D) Paravisceral AAA. (E) Type IV thoraco-abdominal aortic aneurysm. Pararenal and paravisceral AAAs are frequently grouped together as suprarenal AAA. Permission to reproduce granted from Elsevier *J Vasc Surg.*⁹³⁵

Anevrysme Thoraco abdominal

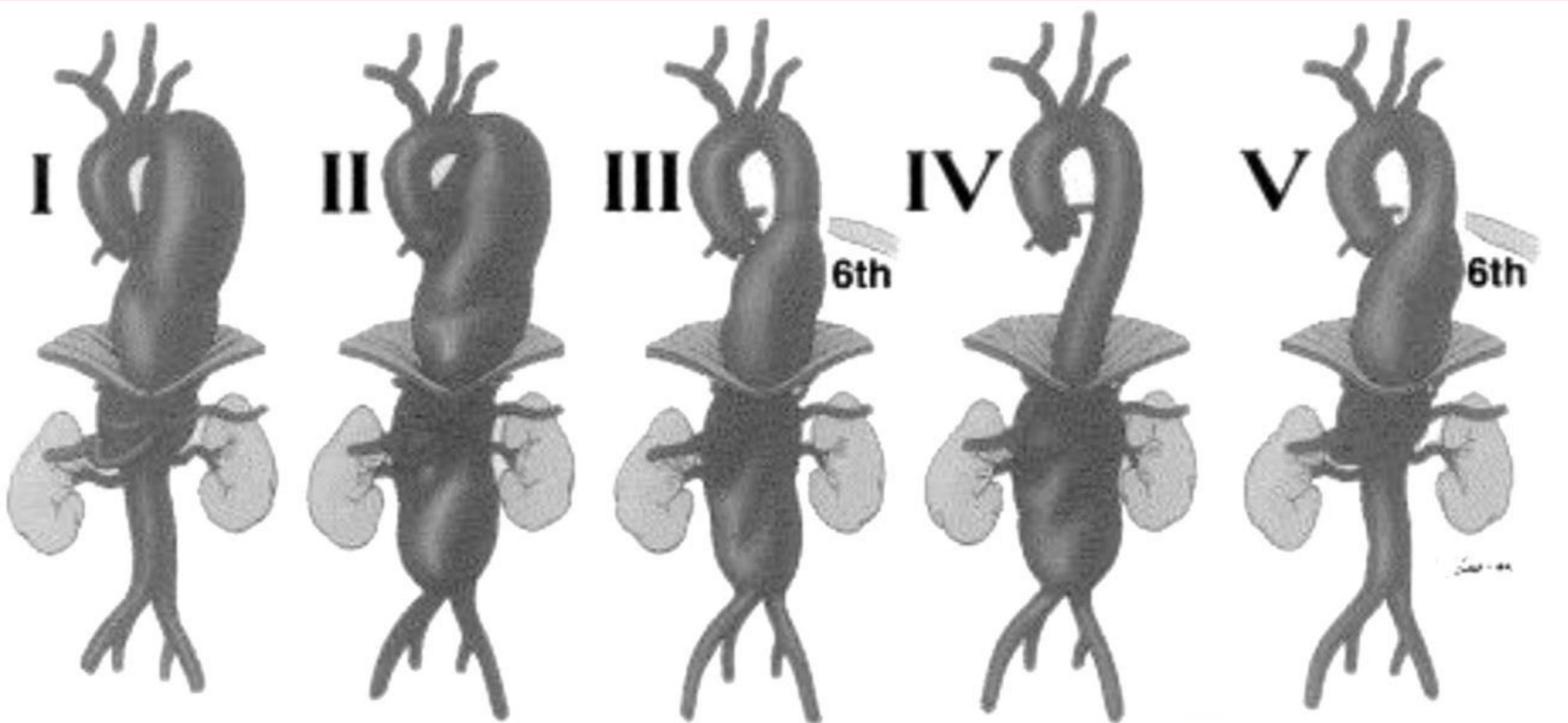
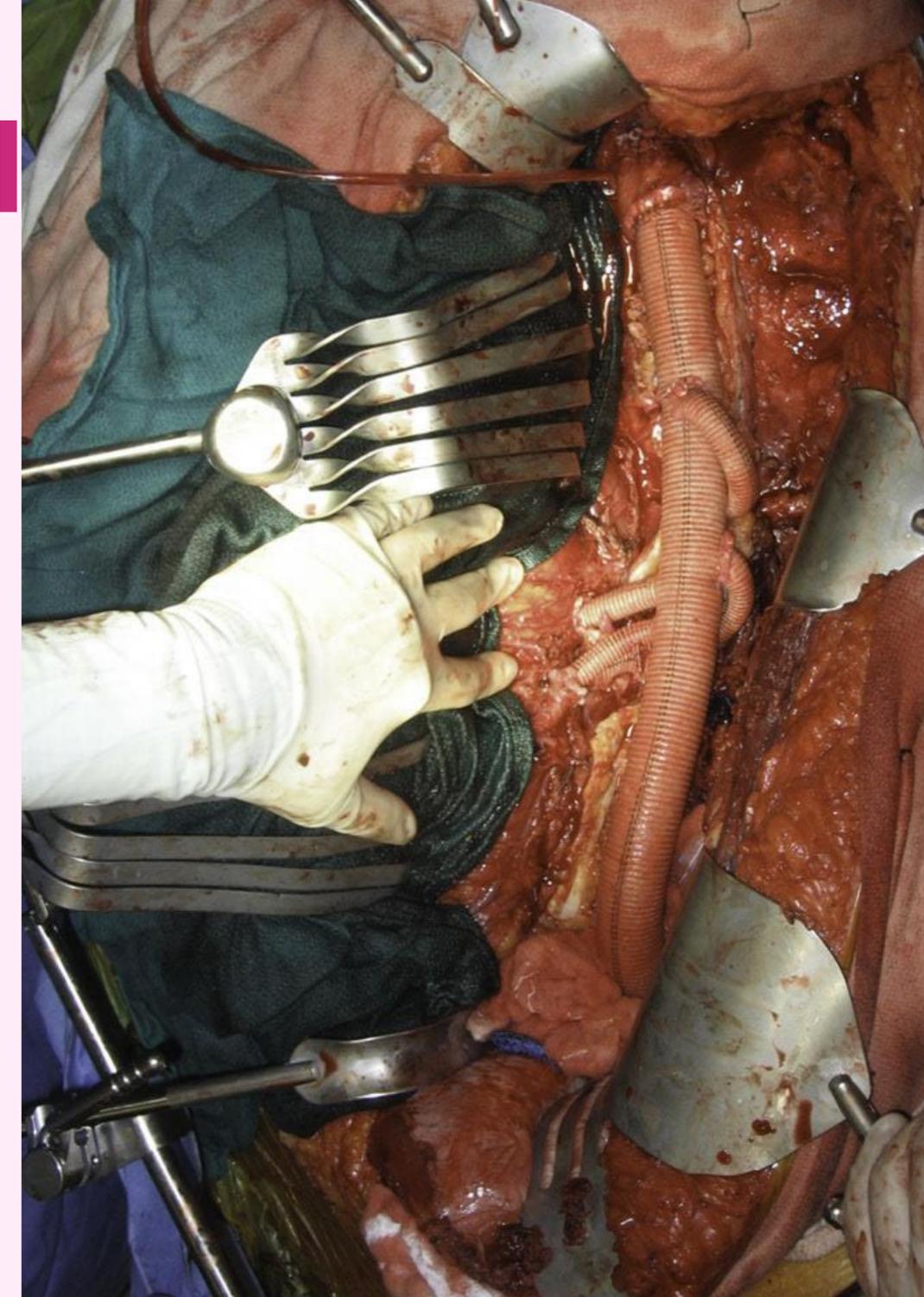


Figure 3. Crawford TAAA classification modified by Safi.²²²



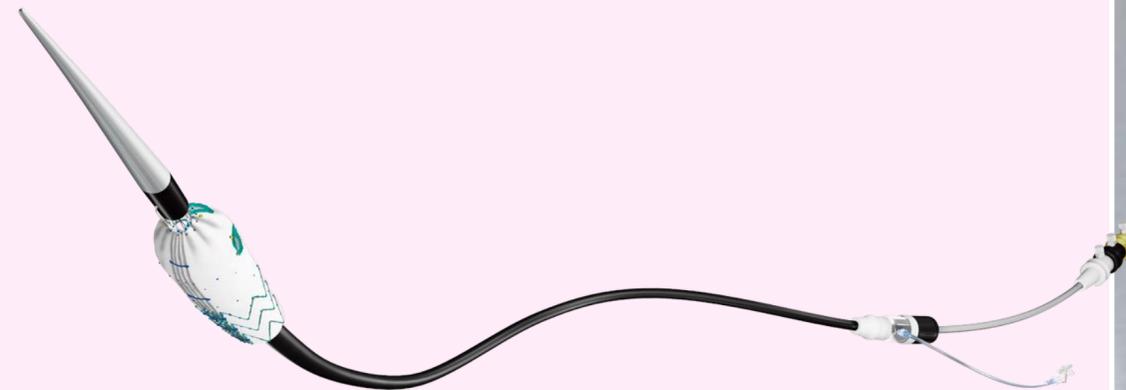
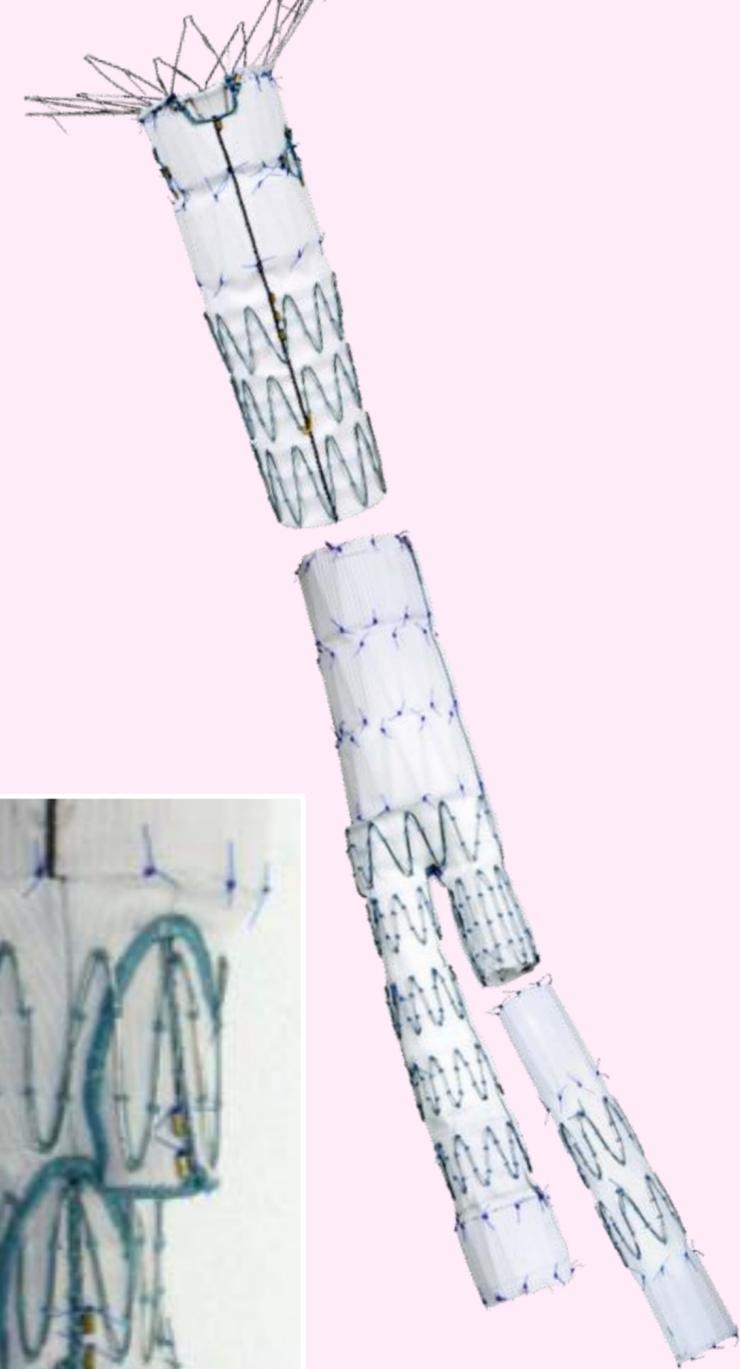
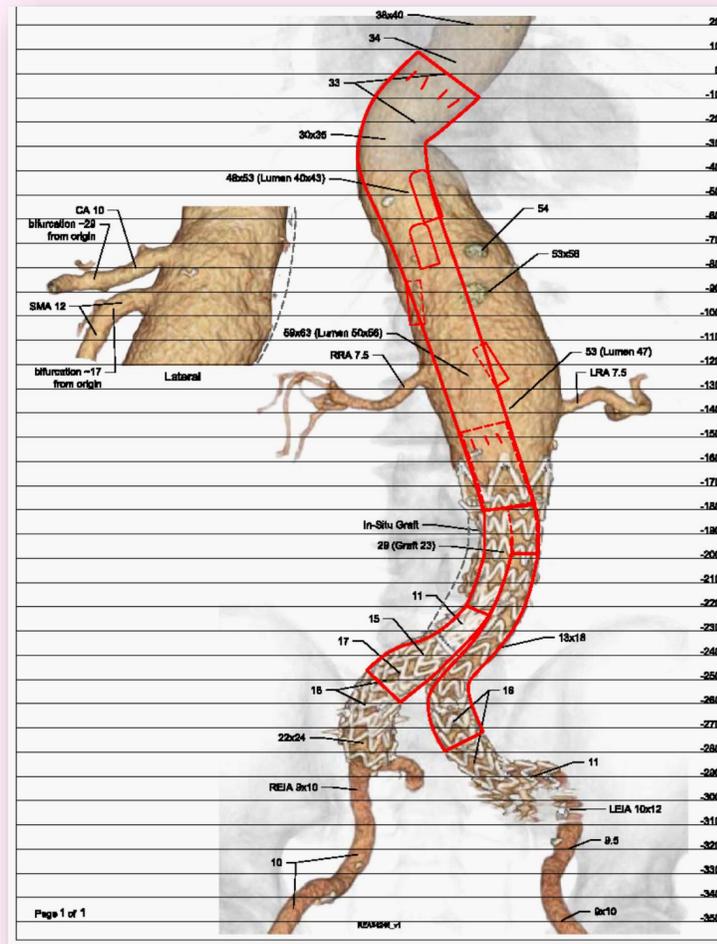
*Bensley RP et al. J Vasc Surg 2013
Chiesa et Al, JVS 2007
Resch et Al, J Endovasc Ther 2006*

Open TAAA repair

complications

- IDM/ AVC
- insuffisance respiratoire aigue 60%
- insuffisance rénale 3-15%
- paraplégie 3-18%
- deces 5-15%

- avant: EVAR et 2 fen
- MAIS:
 - échec technique
 - resultats moyen terme
 - endofuite
- collet court (<15mm)
- collet angulé
- thrombus
- calcifications



Resultats FEVAR

- Succes technique 93%
- Complications pulmonaire 8%
- 30 day mortality = 5%
- Permeabilité à 5 ans = 93%
- Ischémie médullaire = 1-8%

Endovascular treatment of thoracoabdominal aortic aneurysms

Matthieu Guillou, MD,^a Aurelia Bianchini, MD,^a Jonathan Sobocinski, MD,^a Blandine Maurel, MD,^a Piervito D'elia, MD,^a Mark Tyrrell, MD,^b Richard Azzaoui, MD,^a and Stéphan Haulon, MD, PhD,^a *Lille, France; and London, United Kingdom*
J Vasc Surg 2012

Outcomes of fenestrated and branched endovascular repair of complex abdominal and thoracoabdominal aortic aneurysms

Andres Schanzer, MD, Jessica P. Simons, MD, MPH, Julie Flahive, MS, Jonathan Durgin, BA, Francesco A. Aiello, MD, Danielle Doucet, MD, Robert Steppacher, MD, and Louis M. Messina, MD, *Worcester, Mass*

J Vasc Surg 2017

Long-term outcomes after fenestrated endovascular aortic repair for juxtarenal aortic aneurysms

Magnus Sveinsson, MD,^{a,b} Björn Sonesson, MD, PhD,^b Thorarinn Kristmundsson, MD, PhD,^{b,c} Nuno Dias, MD, PhD,^b and Timothy Resch, MD, PhD,^{b,d} *Helsingborg and Malmö, Sweden; and Copenhagen, Denmark*

J Vasc Surg 2022

Gallitto et al. J Vasc Surg 2021

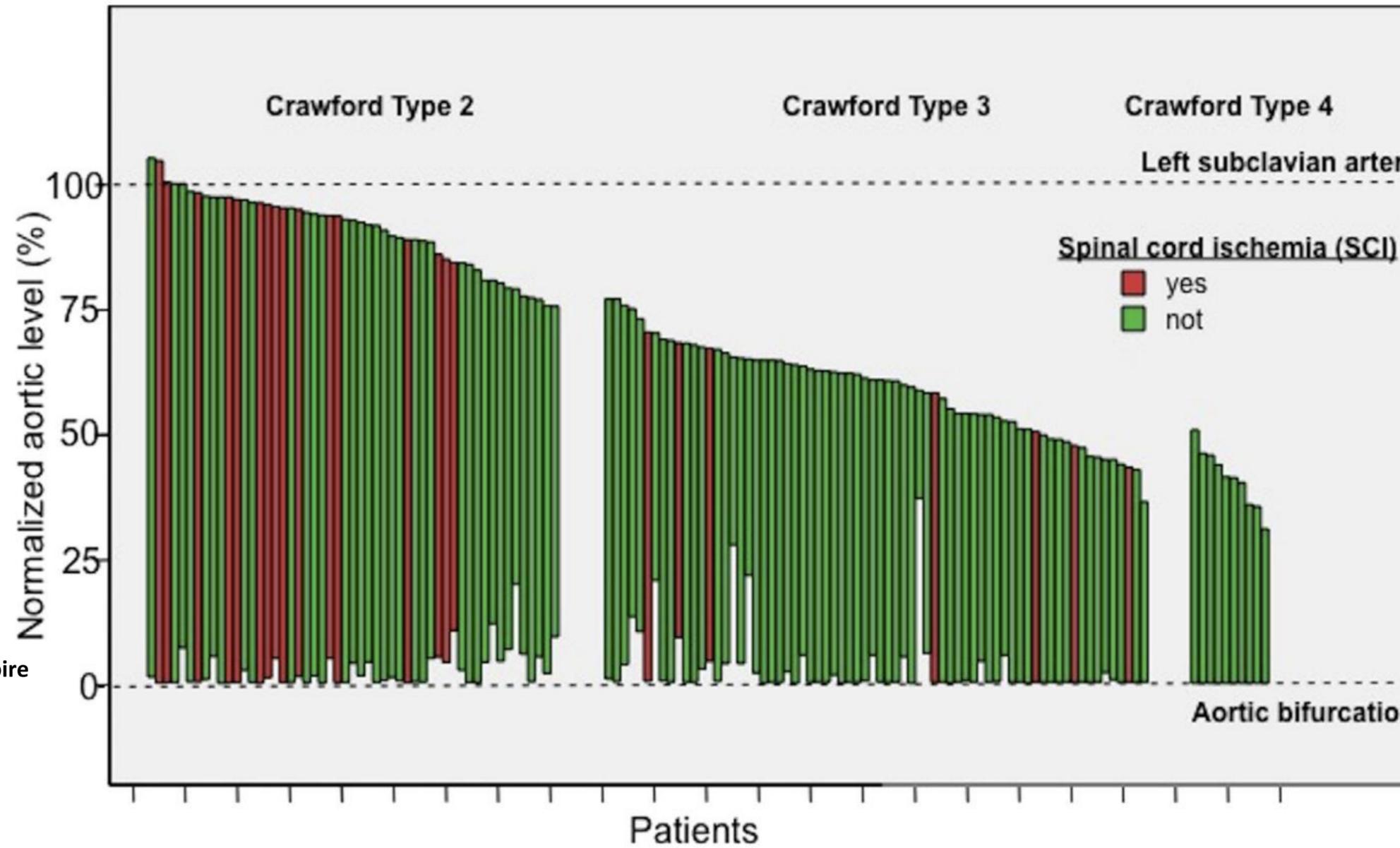
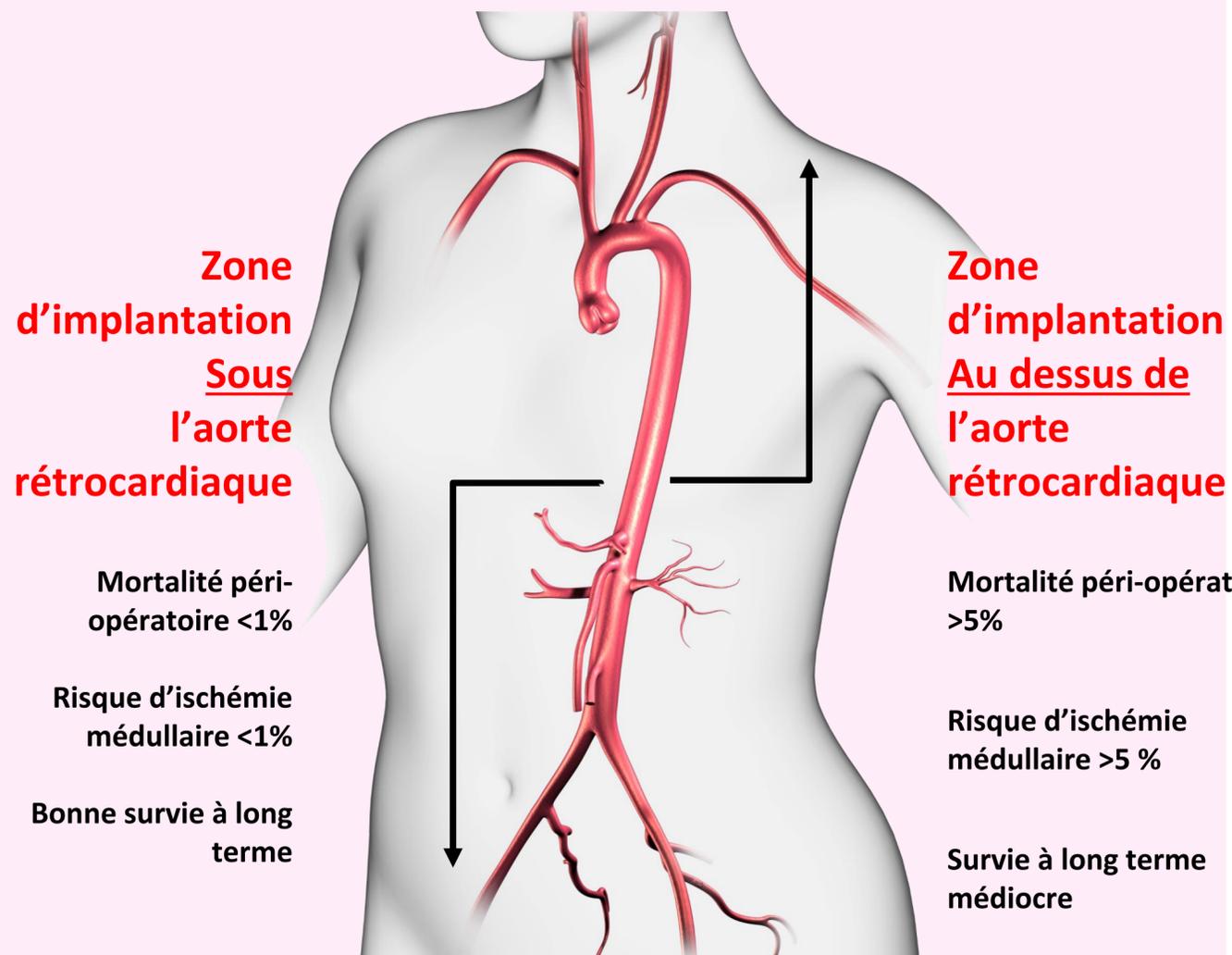
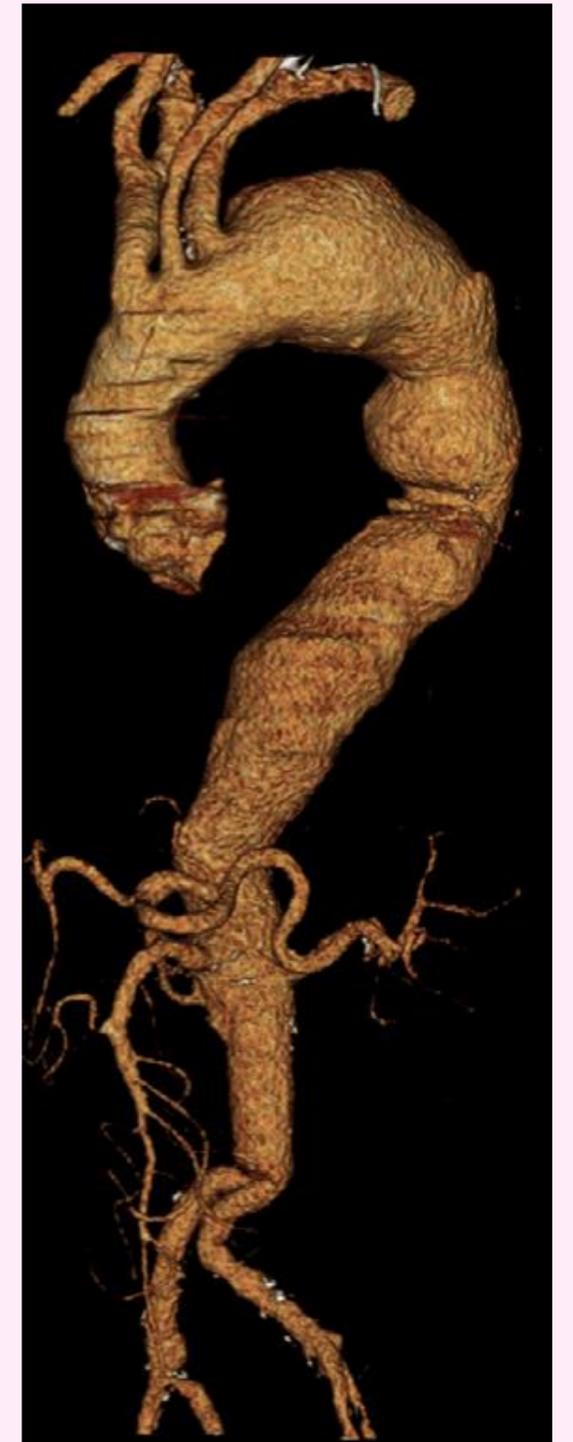
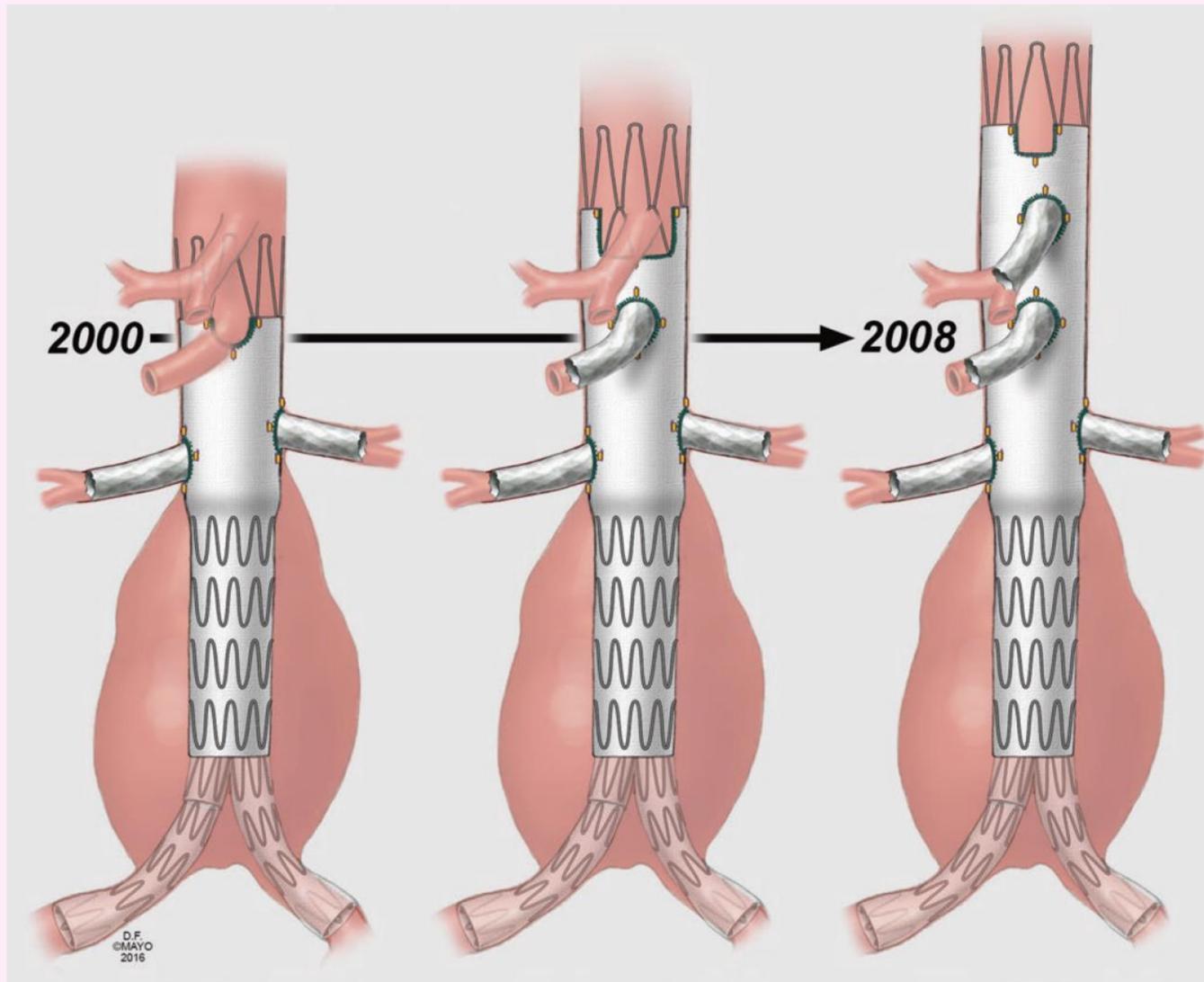


Fig 2. Aortic coverage in percentage in patients treated endovascularly for thoracoabdominal aortic aneurysms (TAAAs). The aorta is normalized in percentage from the subclavian artery (100% coverage) to the aortic bifurcation (0% coverage). Each *bar* represents the aortic coverage of each patient (*green*, no spinal cord ischemia [SCI]; *red*, correlated also to the Crawford classification of the respective aneurysm).

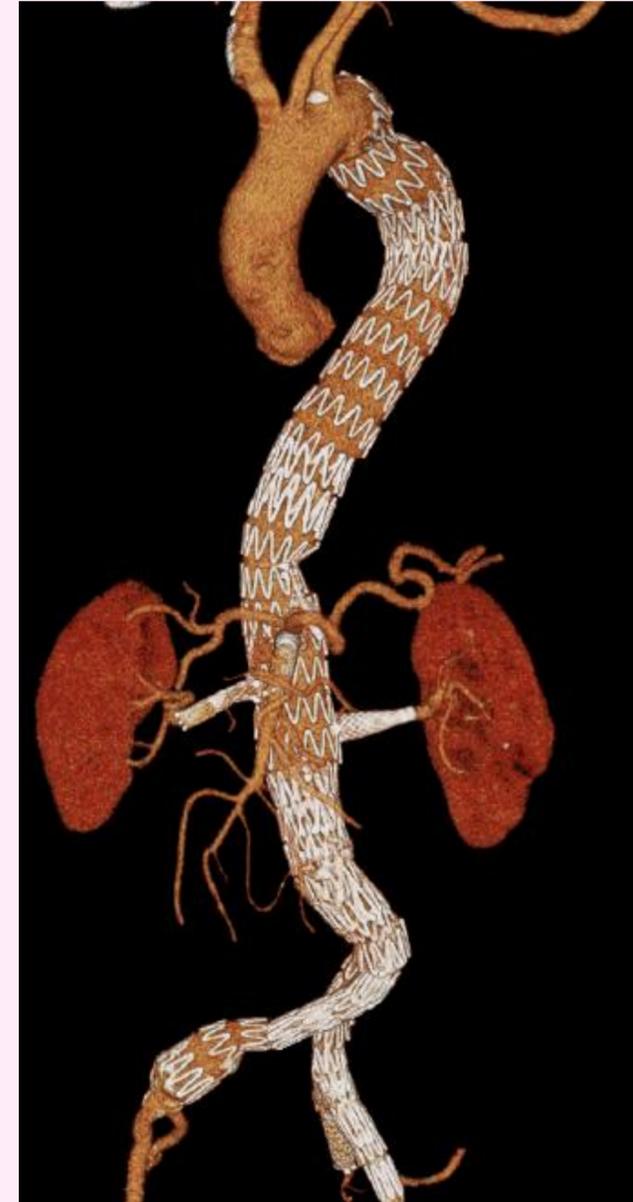
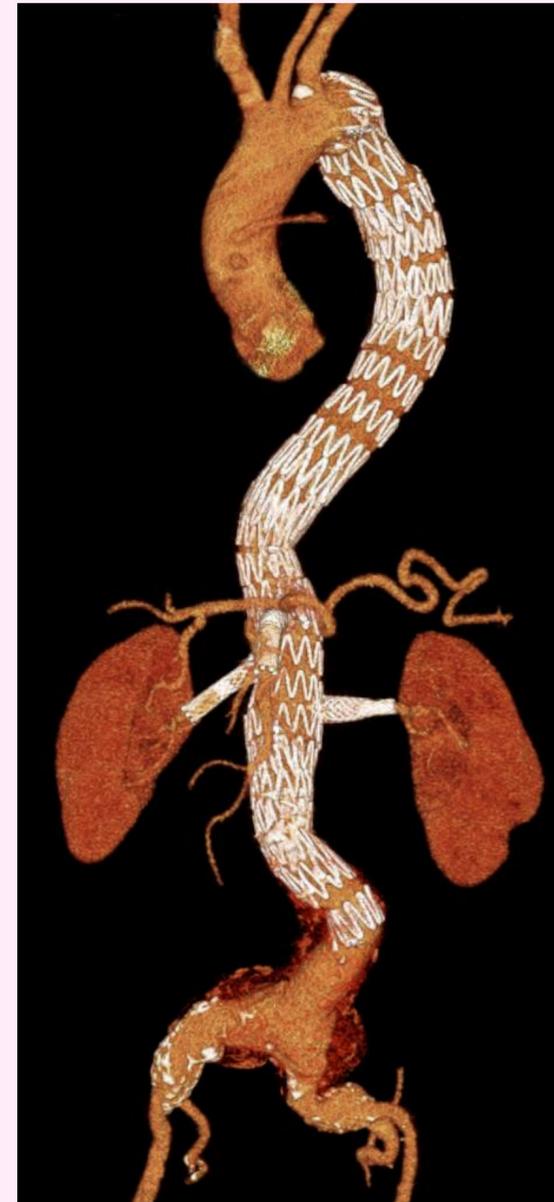
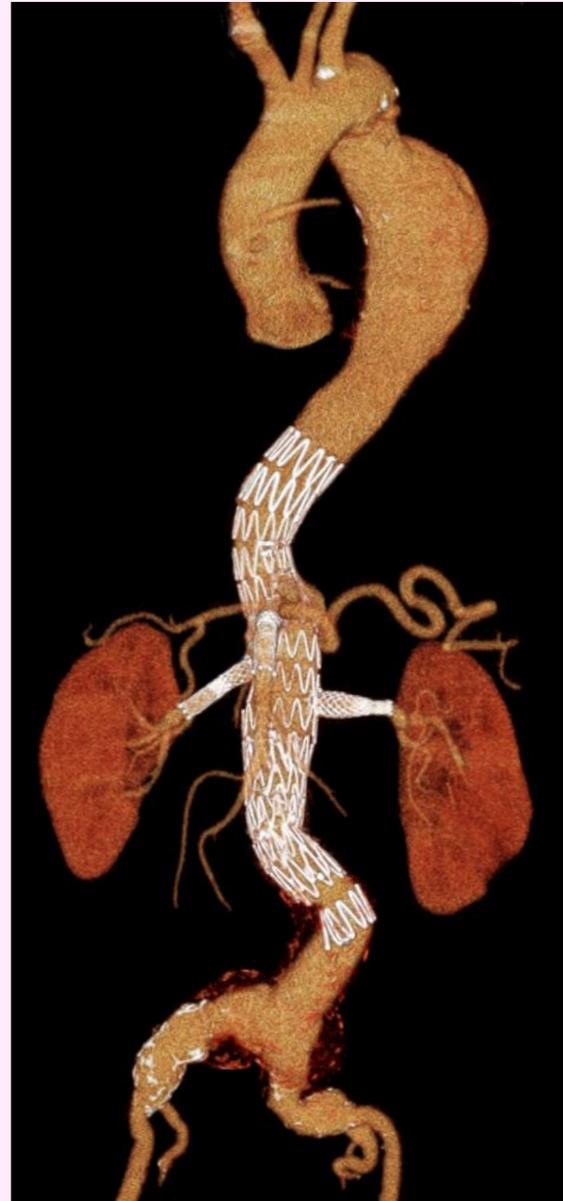
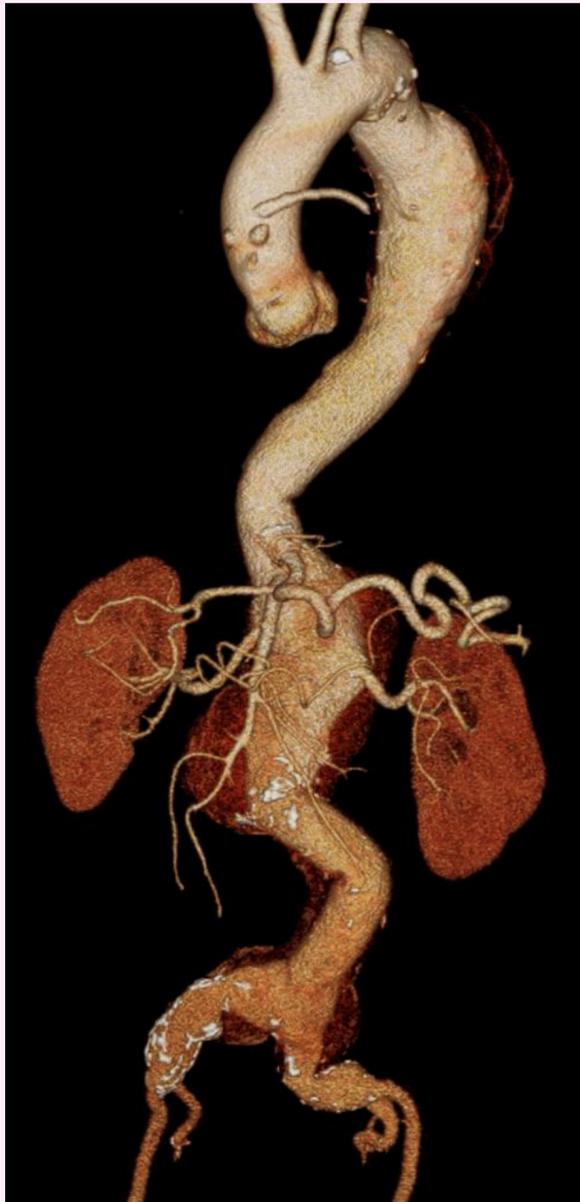
Succès chirurgicale: 2 grands principes

- Pas de compromis sur la zone d'étanchéité proximale



Succès chirurgicale: 2 grands principes

- Anticiper la prochaine étape



Visionneuse



- *2 systèmes de nœuds coulant placés à 90°*
- *Jusqu'à 22 French en préclosing*

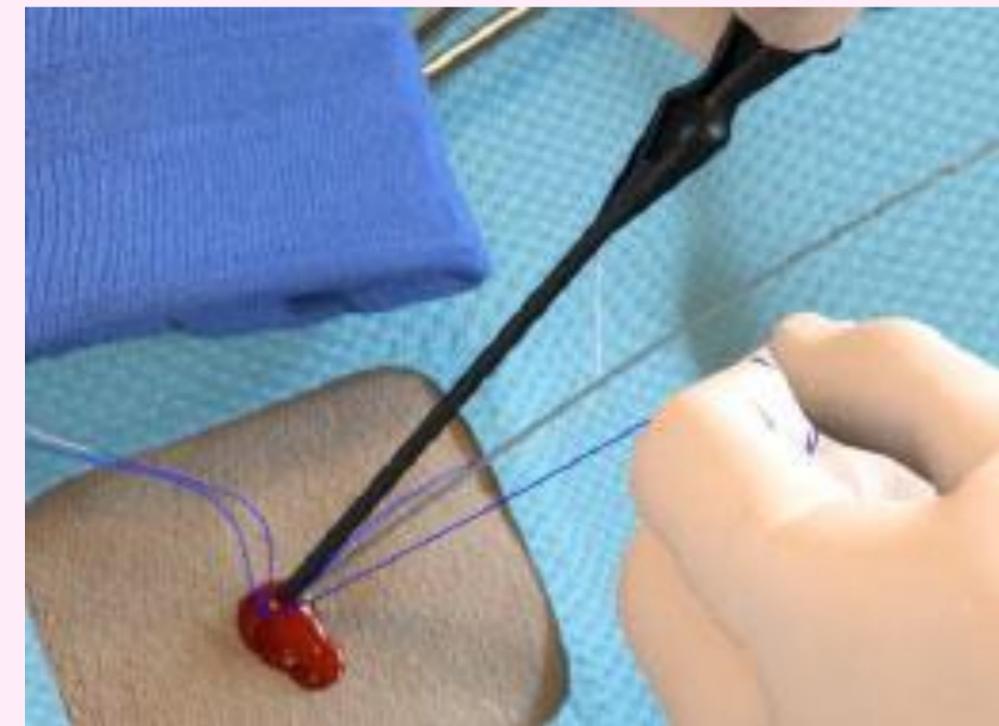
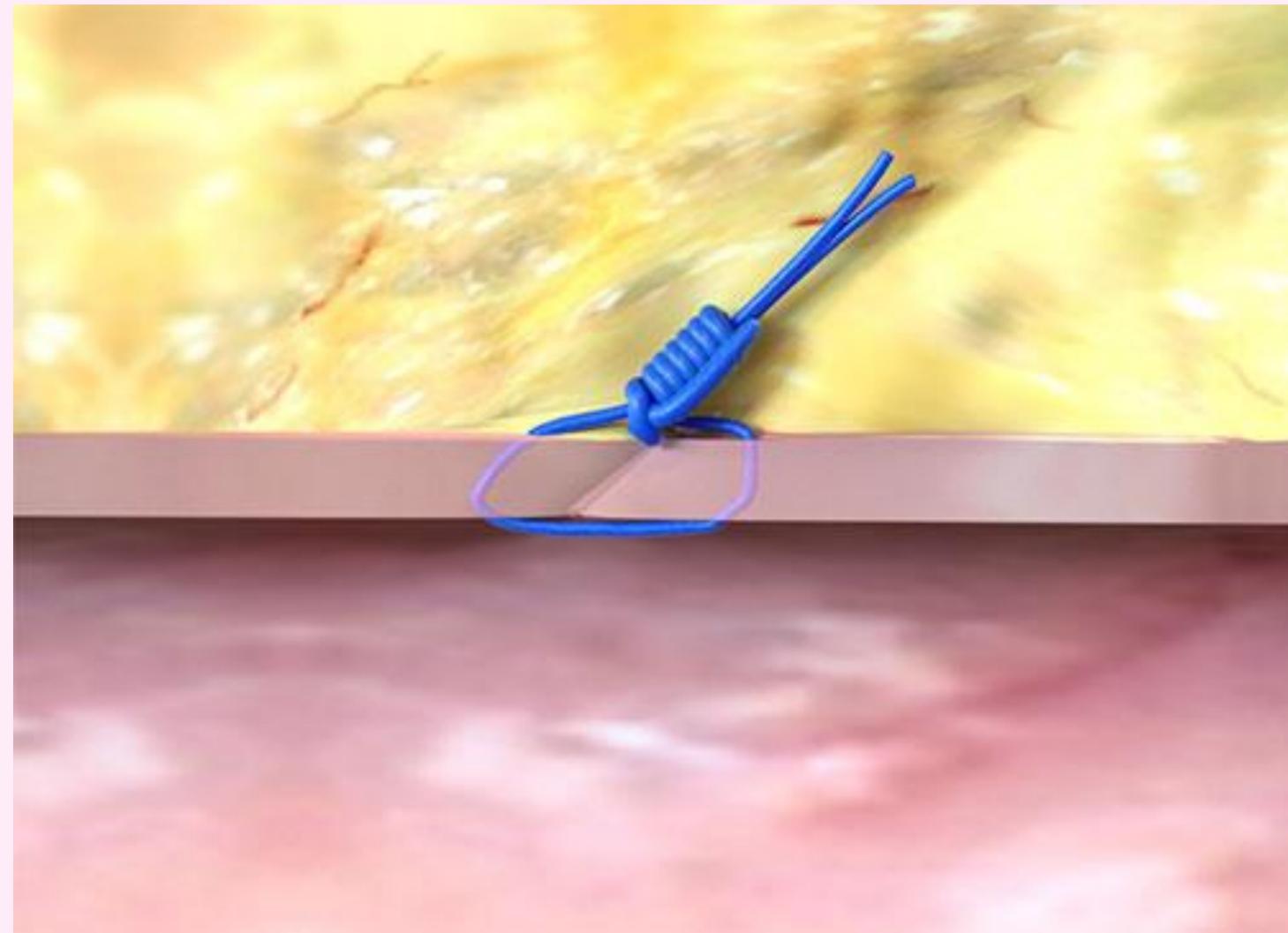


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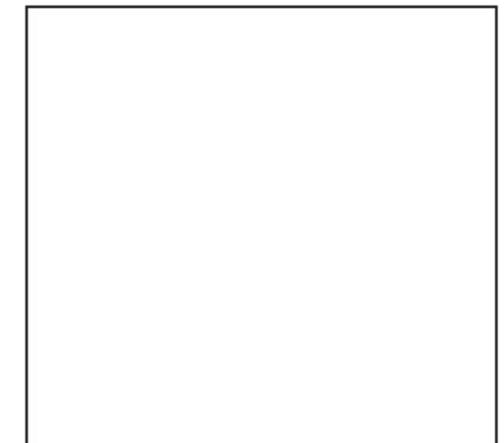
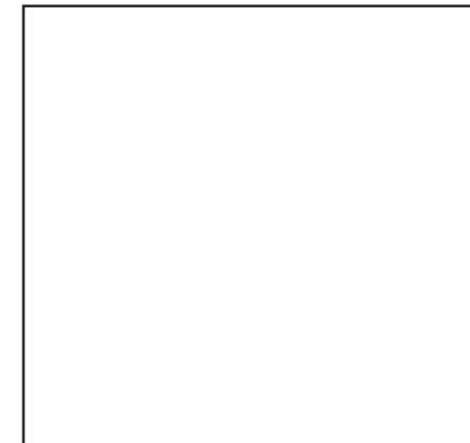
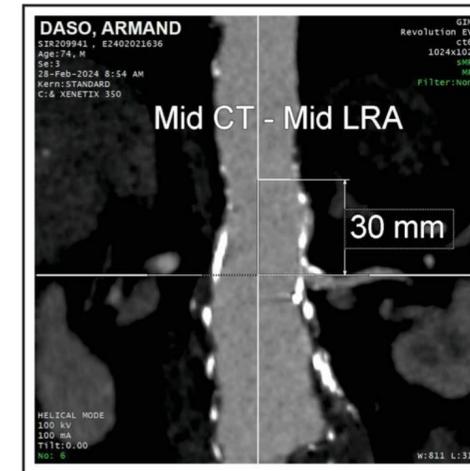
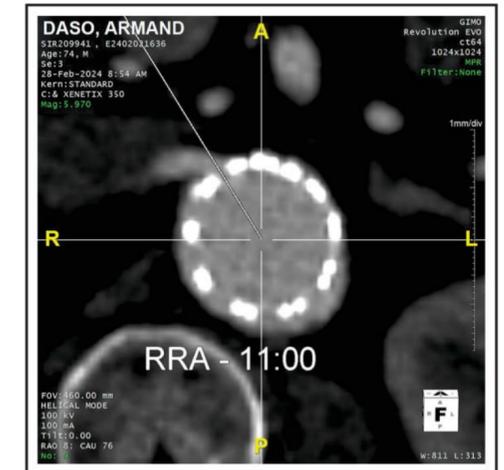
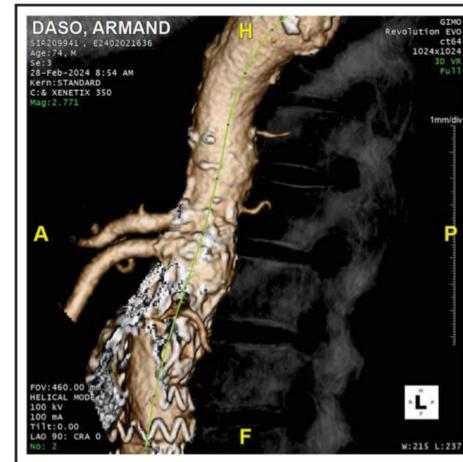
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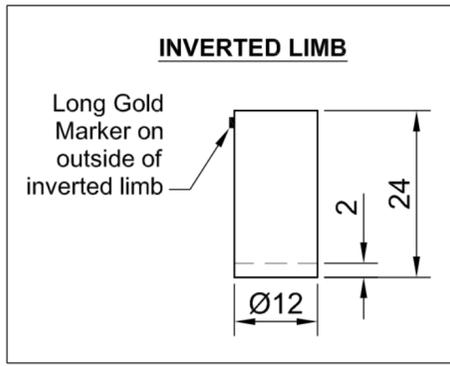
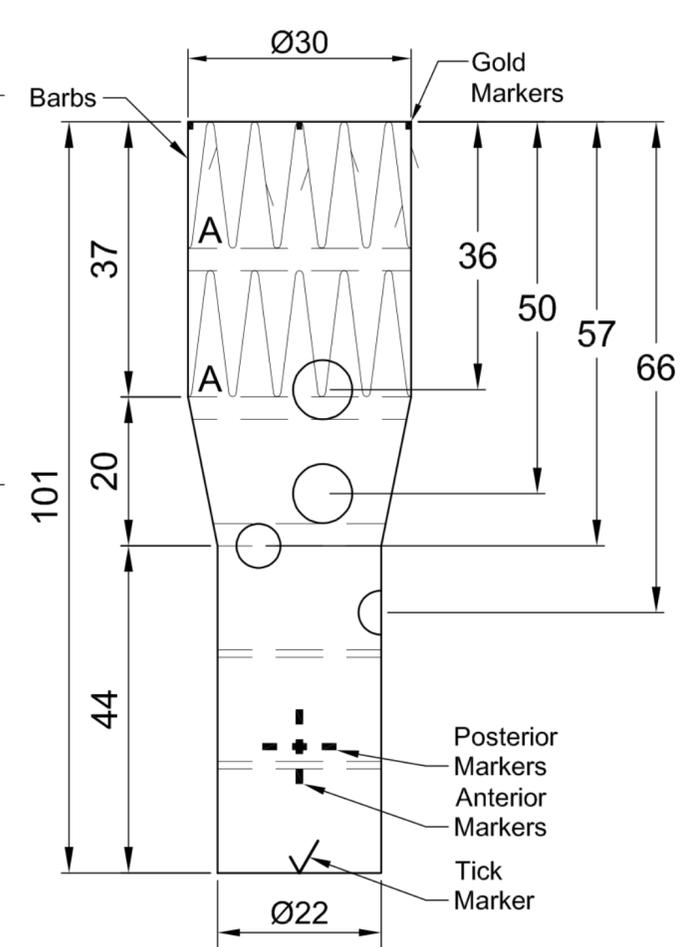
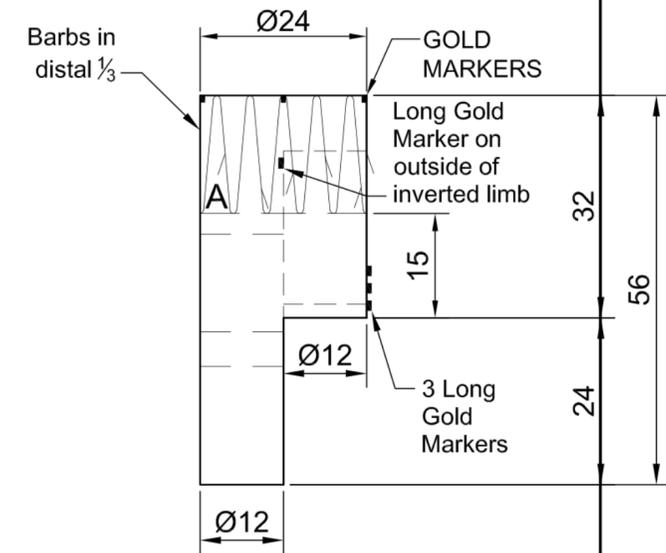
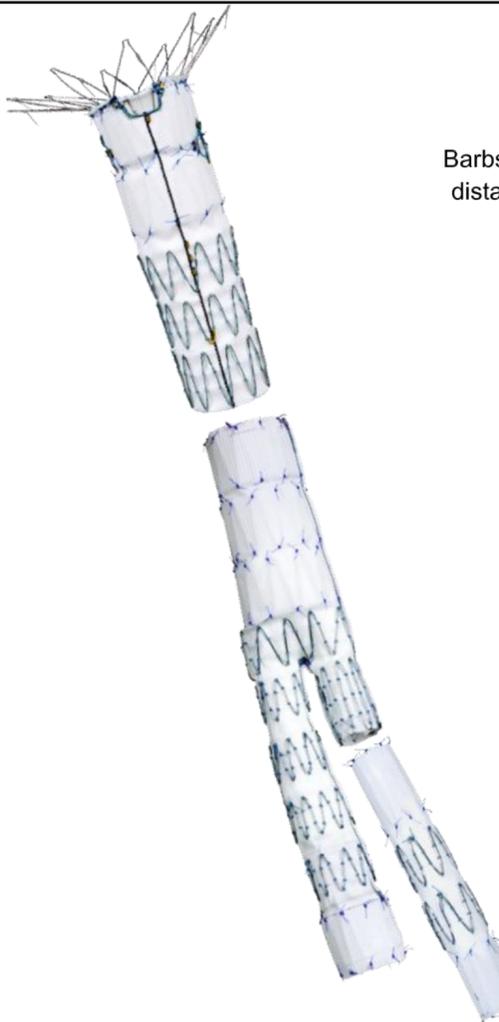
Patient: [REDACTED]

Doctor: Dr. M GUILLOU

Patient: [REDACTED]

Doctor: Dr. M GUILLOU





Plus:
Ipsilateral Leg Extension
ZSLE-20-90-ZT
Contralateral Leg Extension
ZSLE-11-56-ZT
ZSLE-24-56-ZT

REINFORCED LARGE FENES

****Strut Free****
DIAMETER: 8mm
DIST FROM PROX EDGE: 36mm
CLOCK: 12:30
IVD: 23mm

REINFORCED LARGE FENES

****Strut Free****
DIAMETER: 8mm
DIST FROM PROX EDGE: 50mm
CLOCK: 12:30
IVD: 23mm

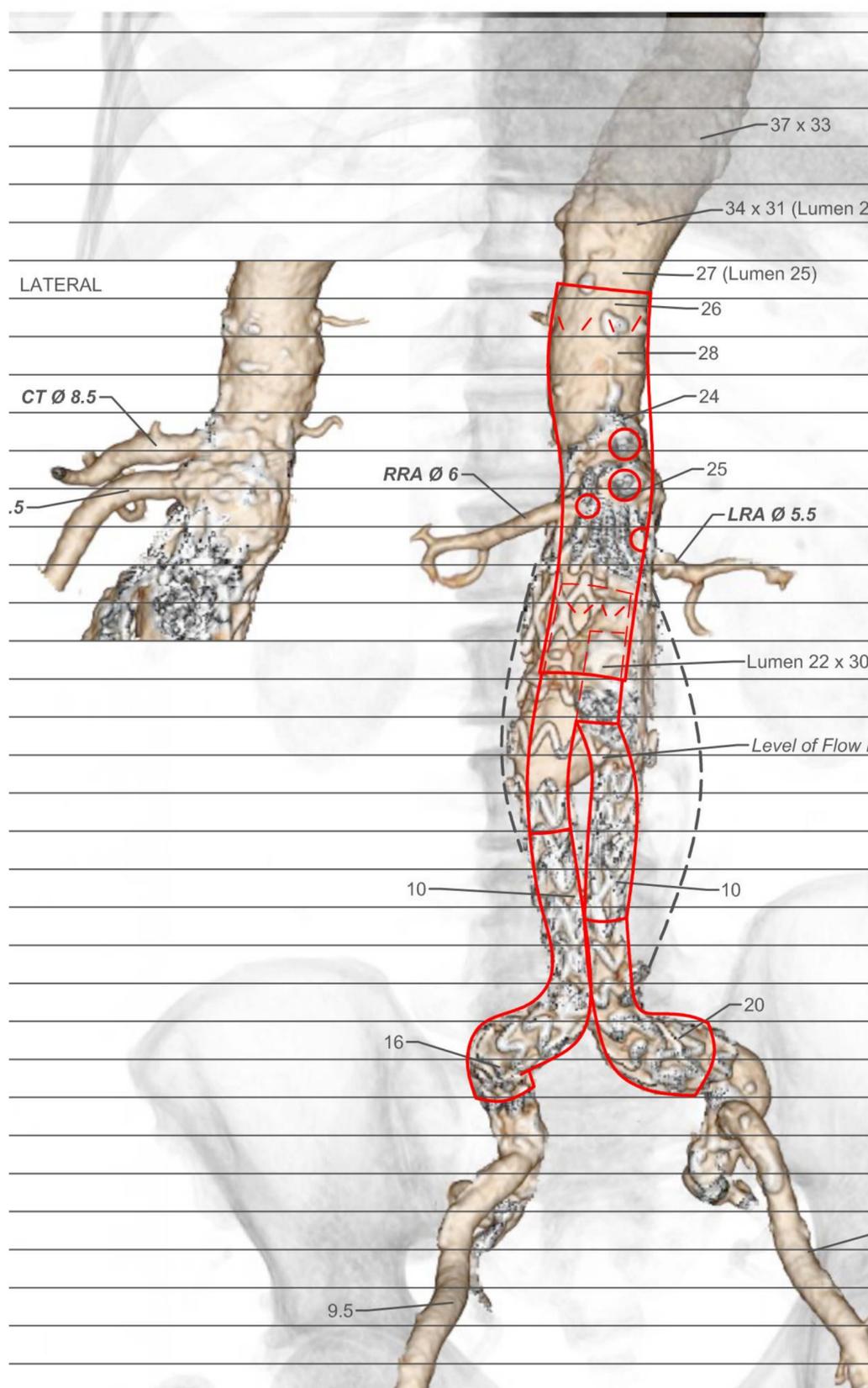
REINFORCED SMALL FENES

DIAMETER: 6mm
DIST FROM PROX EDGE: 57mm
CLOCK: 11:00
IVD: 21mm

REINFORCED SMALL FENES

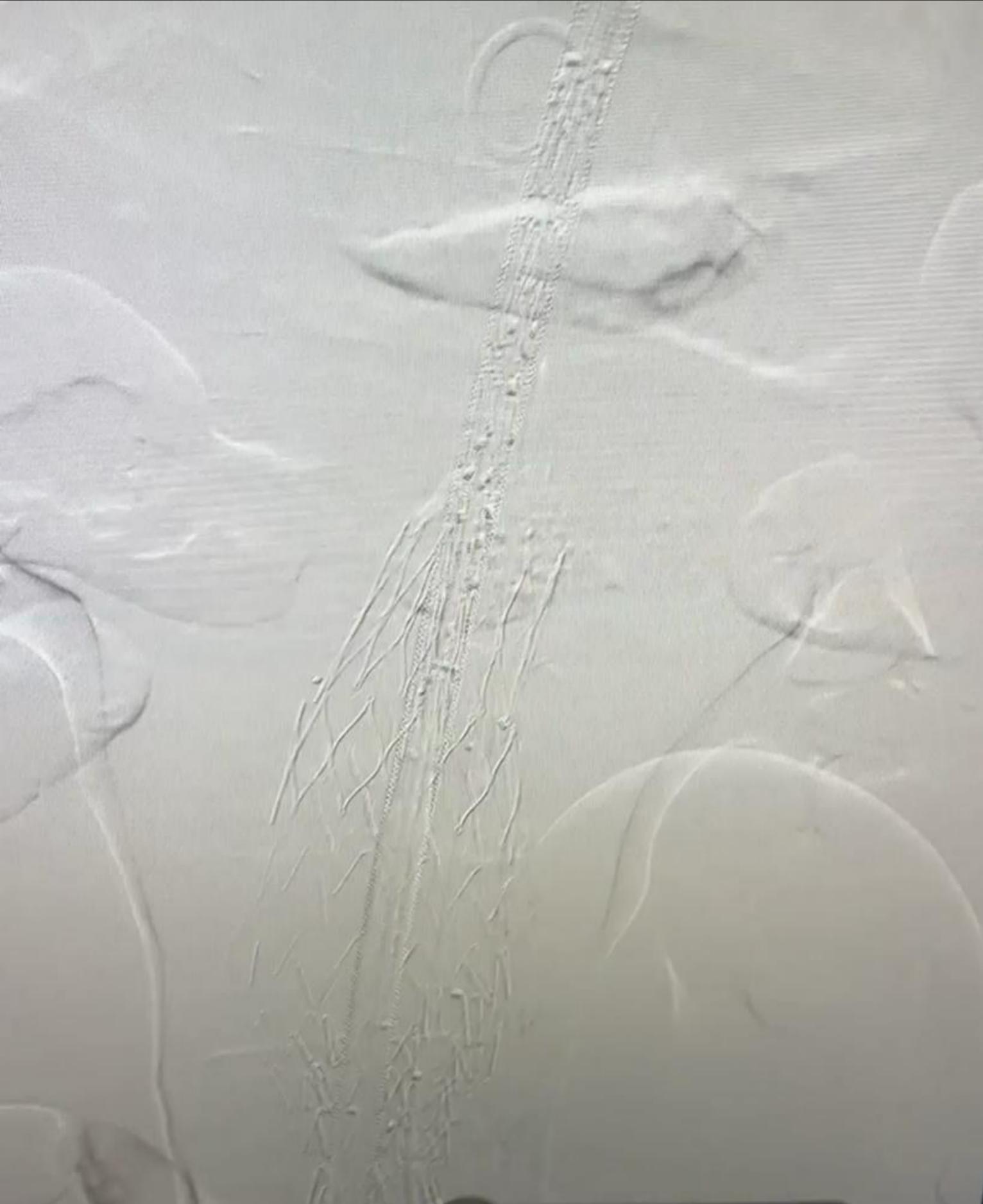
DIAMETER: 6mm
DIST FROM PROX EDGE: 66mm
CLOCK: 3:15
IVD: 21mm

- SINGLE DIAMETER REDUCI

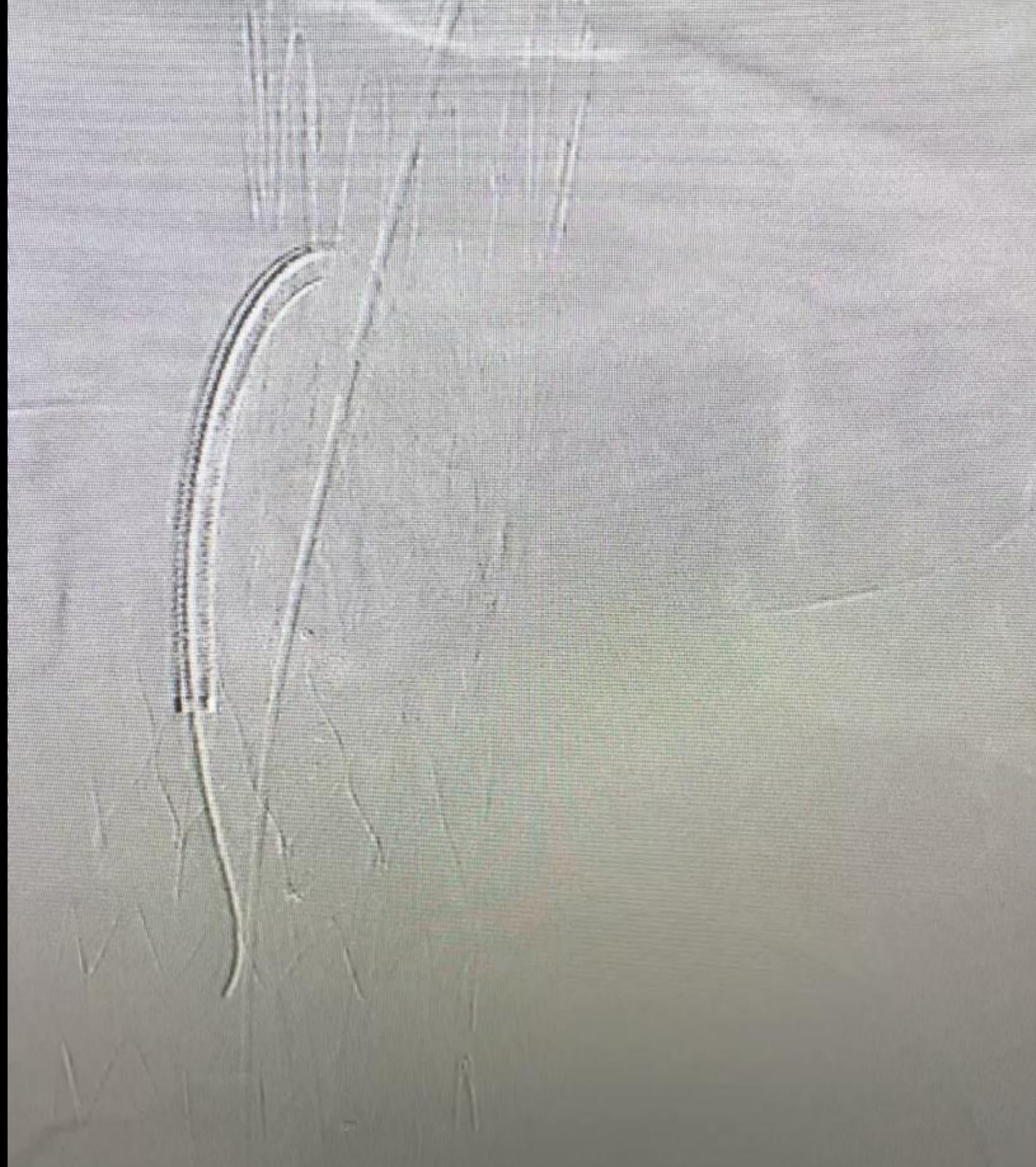


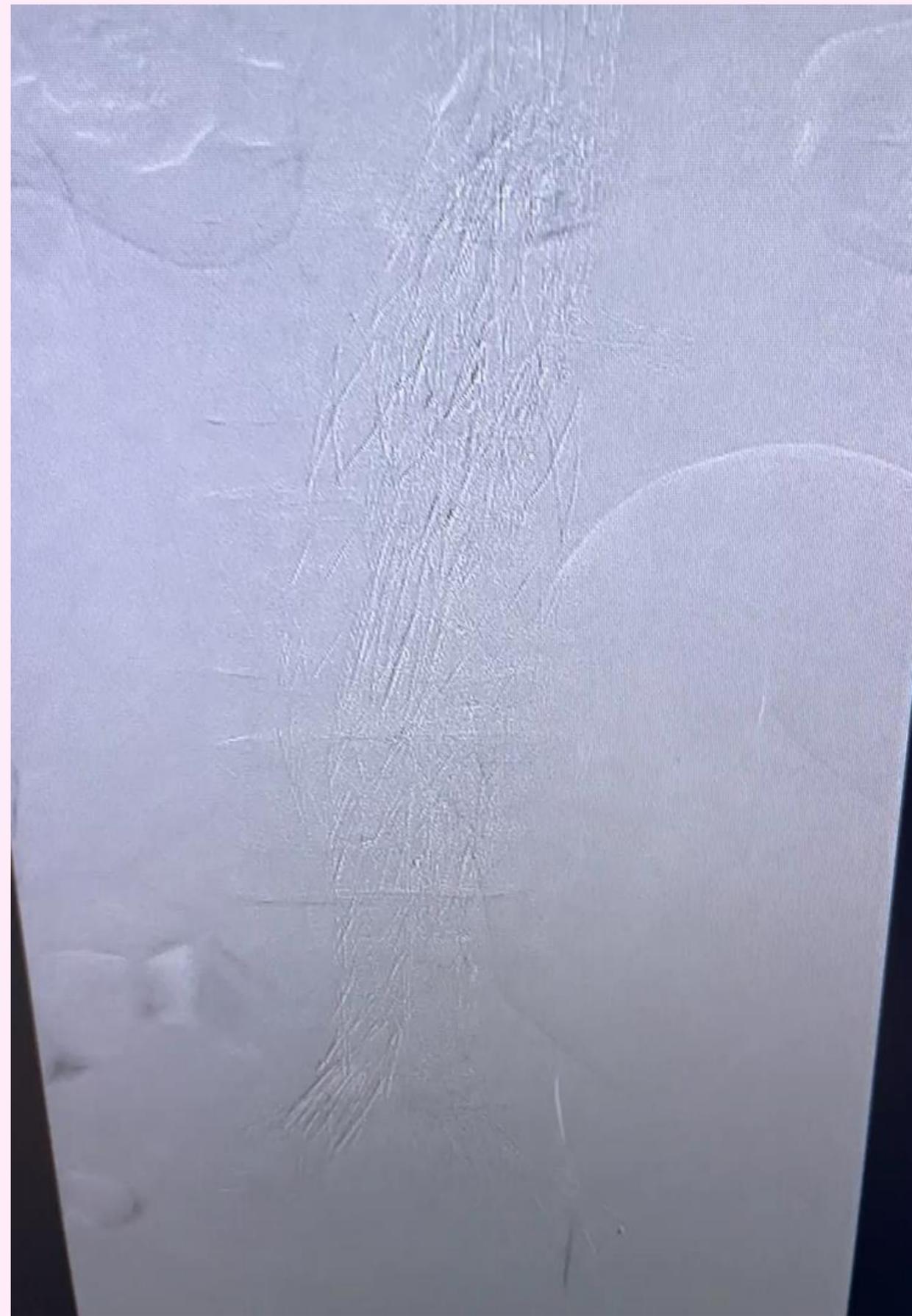
Warning: 1. By signing this graft plan you are confirming that the patient has consented to the provision of their personal information to Cook Medical. The patient understands that in order to plan and manufacture the requested device, Cook Medical may share his/her personal information with its subsidiaries in the United States, Australia, Denmark, United Kingdom and Ireland and has consented to his/her personal information being shared. **2.** You are confirming that all clinically important features (eg. fenestration size / orientation, gold marker placement, sealing stents) are included in this graft design plan. **3.** Unsigned plans or alterations may lead to a delay in the supply of this device. Please sign and date each page. If you wish to alter any part of this plan, please sign and date each change.

20FR FLEXOR	Patient ID: [REDACTED]	Sheath Size: 20FR FLEXOR	Patient ID: [REDACTED]
7mm	Doctor: Dr. M GUILLOU	E No.: AE102	Doctor: Dr. M GUILLOU
0cm	Sheath Length: 50cm		Hospital: CHU Felix Guyon, La Reunion, France

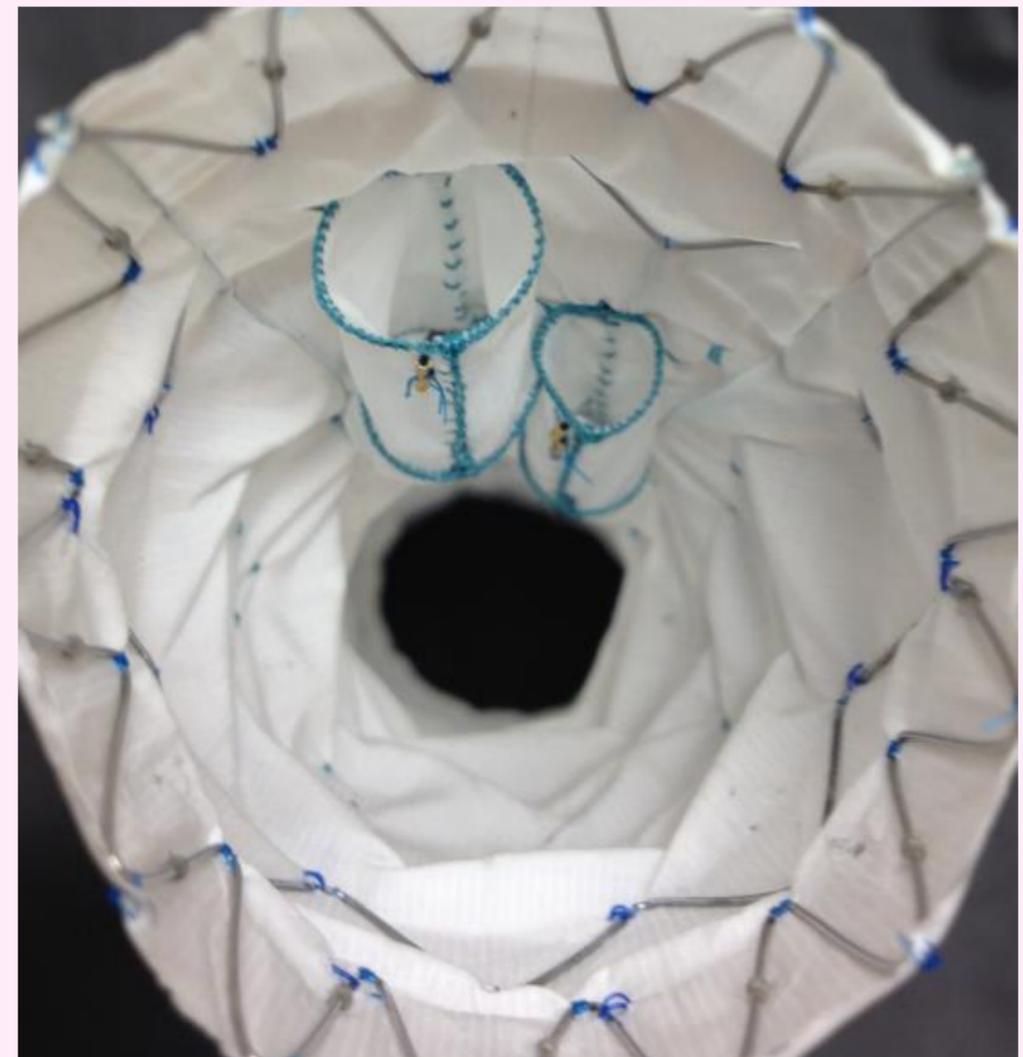
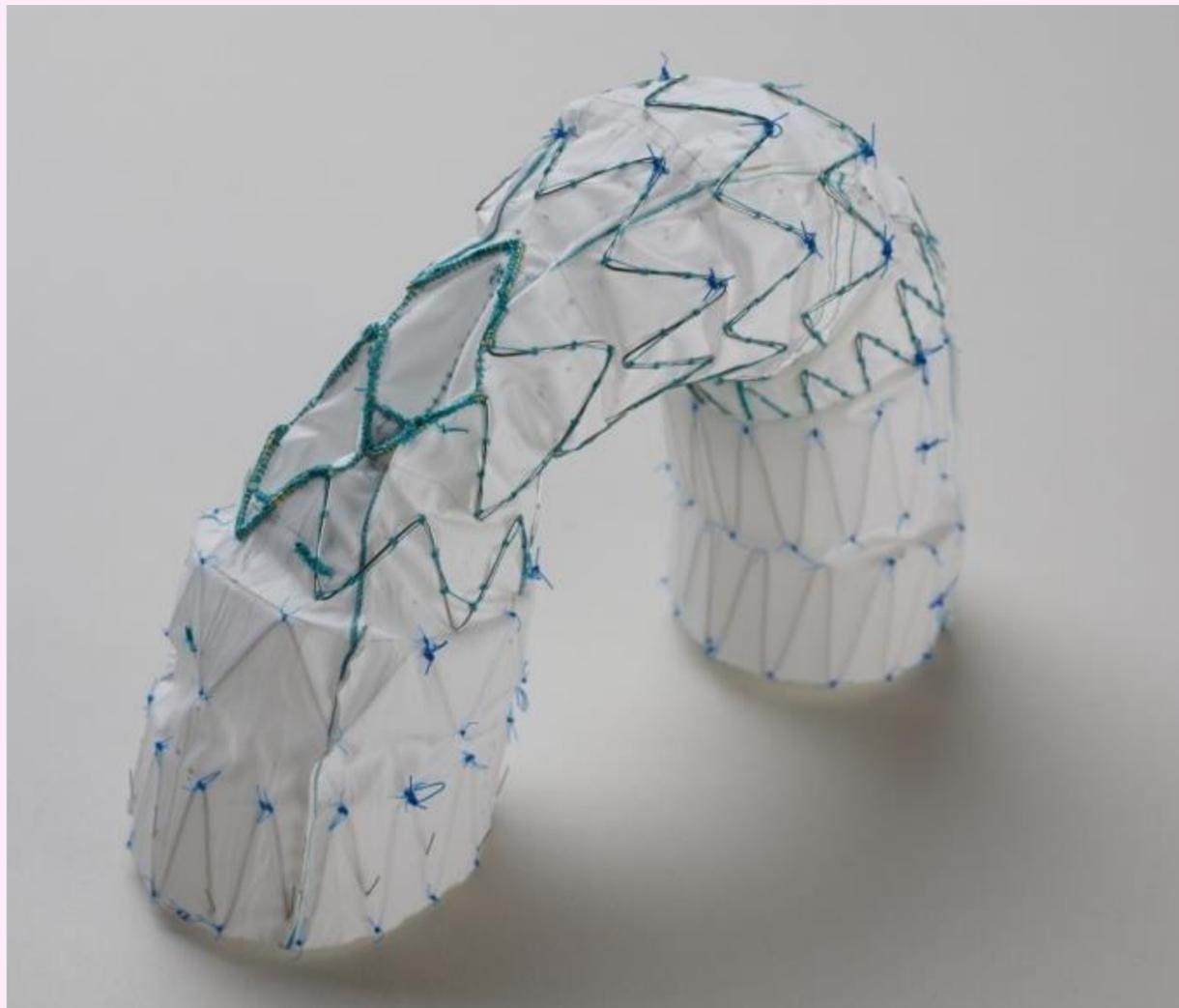




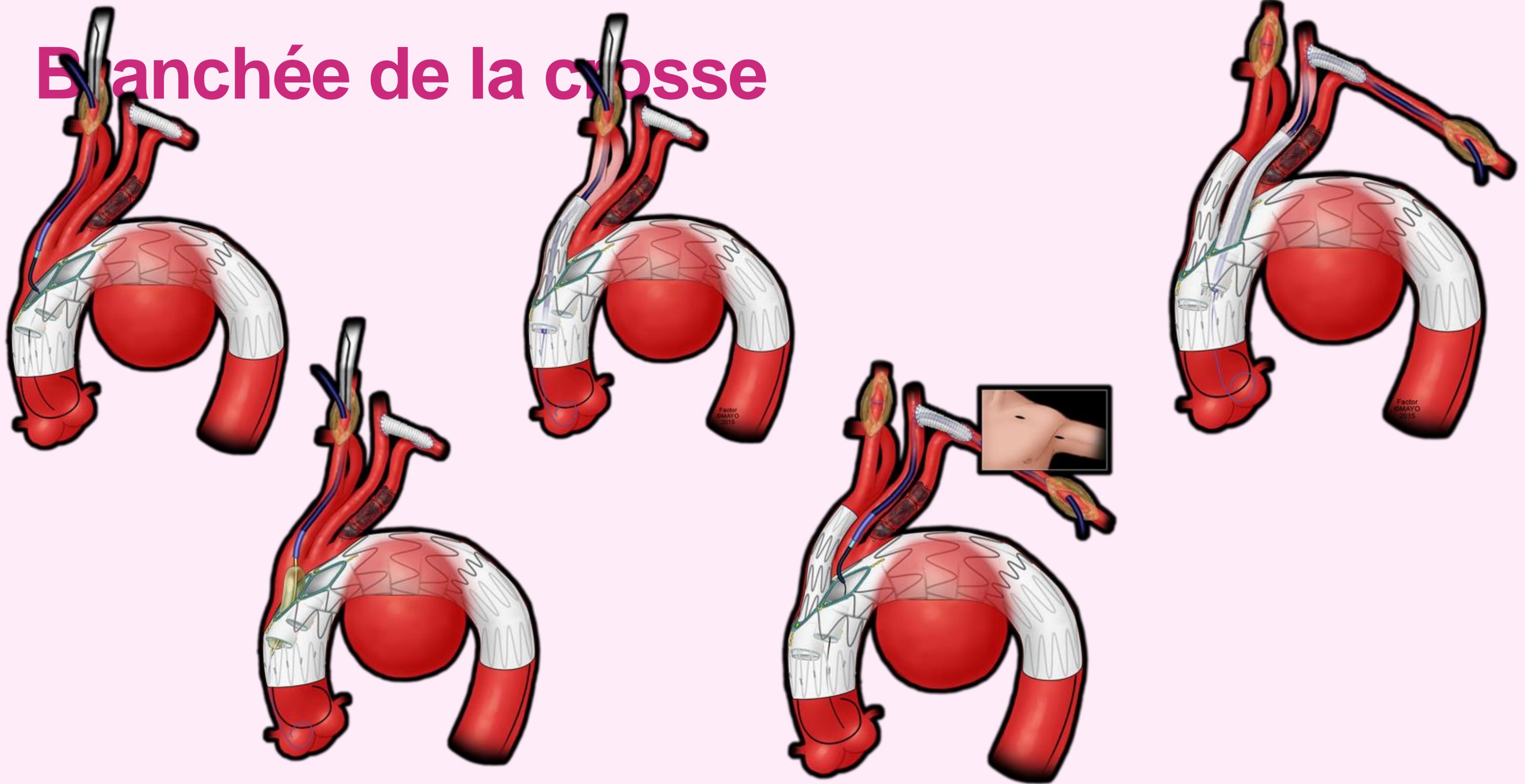


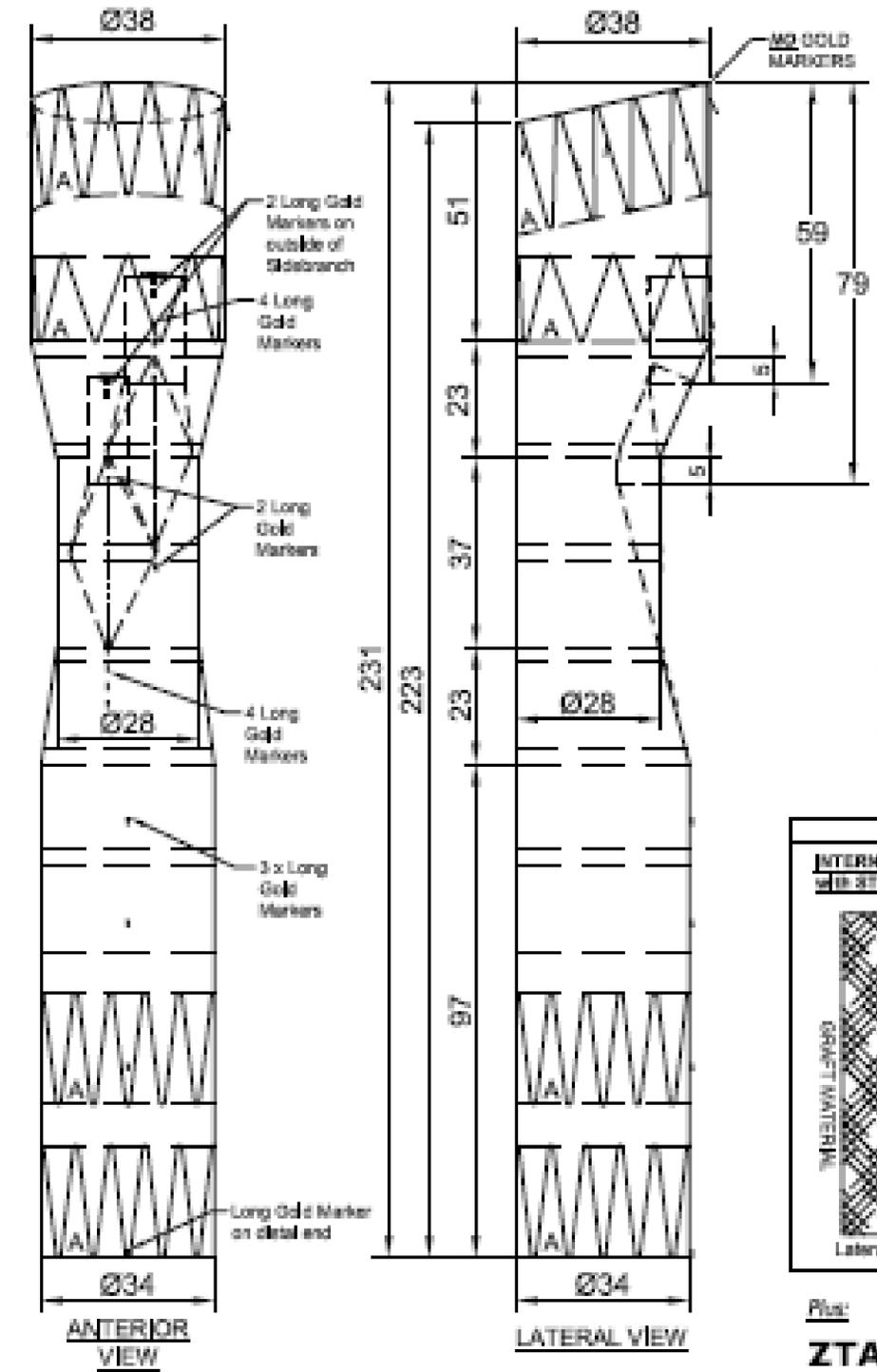
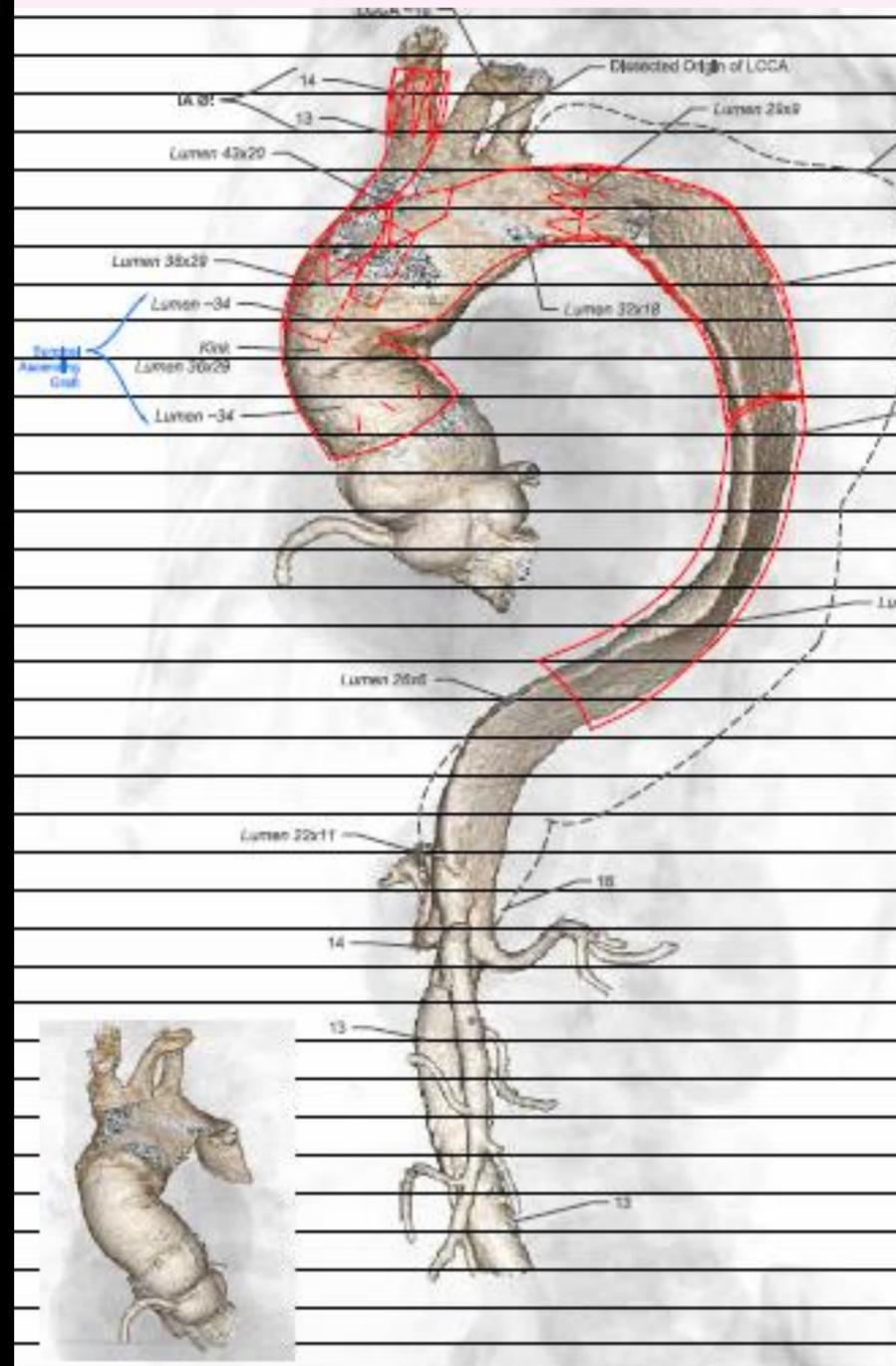


Endoprothèse de la crosse aortique



Branchée de la crosse

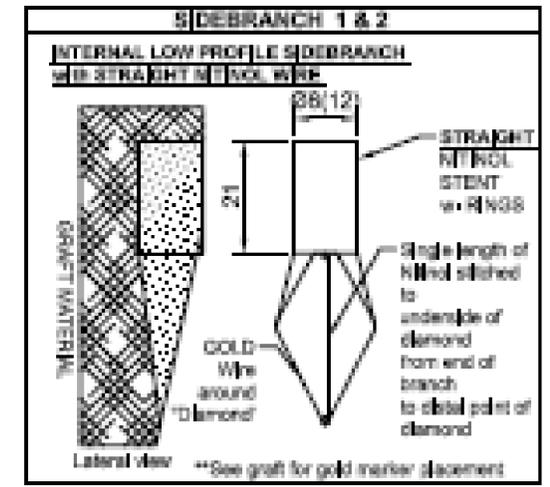




**INTERNAL LOW PROFILE
 SIDEBRANCH #1**
 DIAMETER: 12mm
 LENGTH: 21mm
 DIST FROM PROX EDGE: 59mm
 CLOCK: 12:30

**INTERNAL LOW PROFILE
 SIDEBRANCH #2**
 DIAMETER: 8mm
 LENGTH: 21mm
 DIST FROM PROX EDGE: 79mm
 CLOCK: 11:30

- 2 sets of DIAMETER REDUCING TIES
- SPIRAL STABILISING WIRE
- STAGED RELEASE
- CURVED NITINOL CANNULA & FLEXOR SHEATH
- LOW PROFILE FABRIC

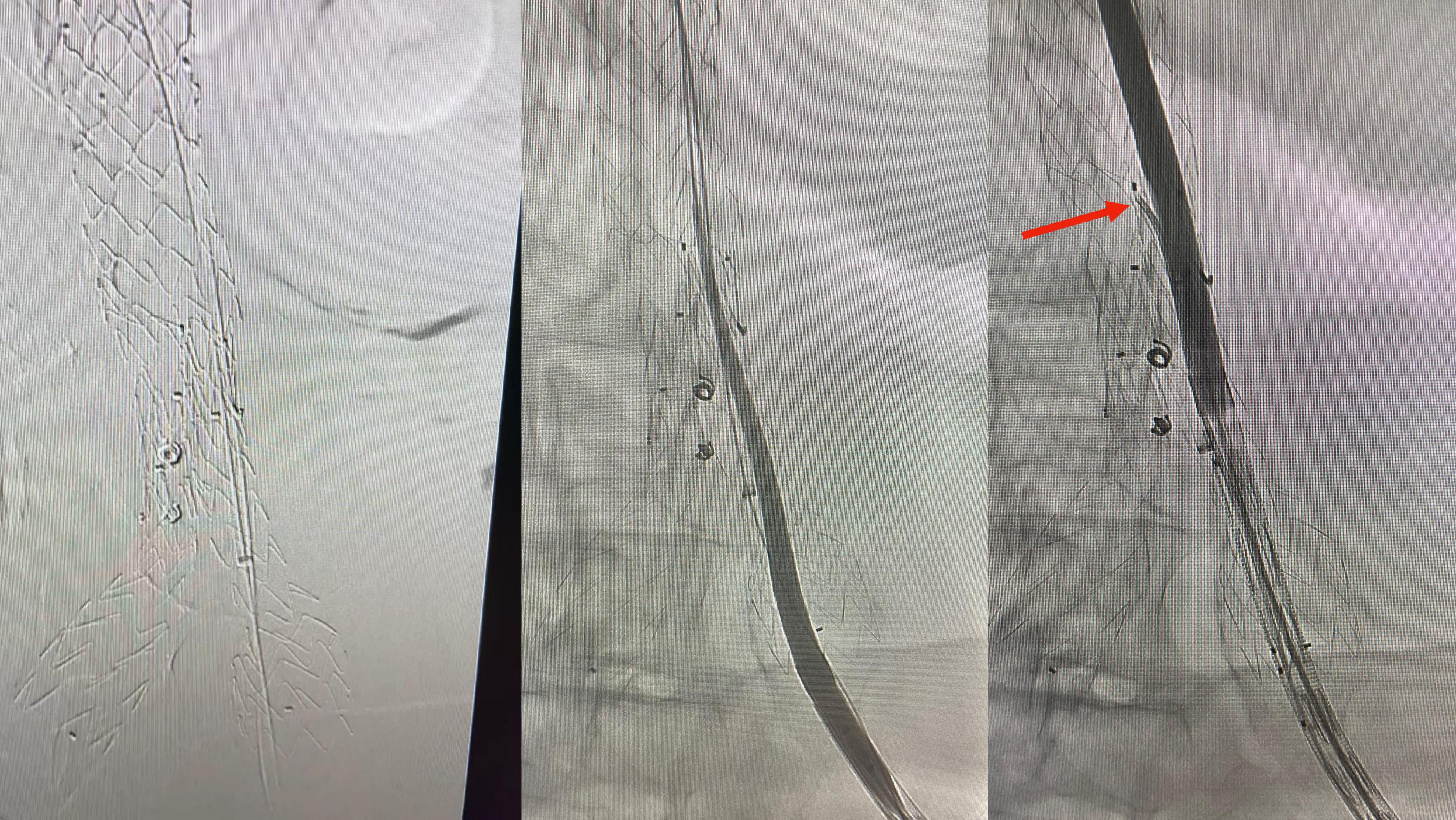


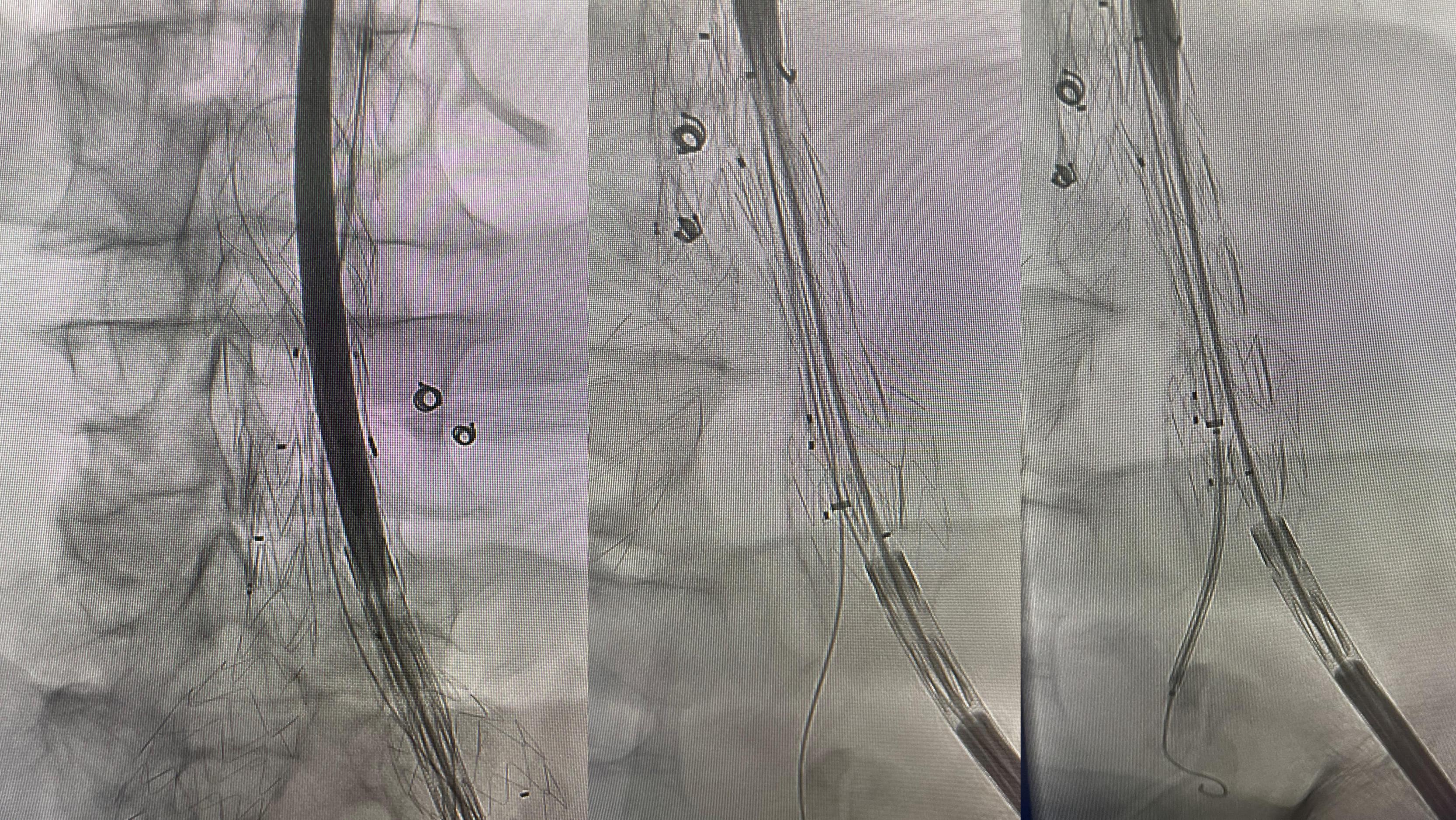
Part:
ZTA-PT-36-32-209
ZTA-PT-32-28-178

Please note the following: 1. By signing this graft plan you are confirming that the patient has consented to the provision of their personal information to Cook Medical. The patient understands that in order to plan and manufacture the requested device, Cook Medical may share his/her personal information with other Cook Group companies in the United States, Australia, Denmark, United Kingdom and Ireland and has consented to his/her personal information being so shared. 2. You confirming that all clinically important features (eg. fenestration size / orientation, gold marker placement, sealing stents) are included in this graft design prior to your approval. 3. Unsigned plans or alterations may lead to a delay in the supply of this device. Please sign and date each page. If you wish to alter any part of this plan please note and date each change.

ZBIS



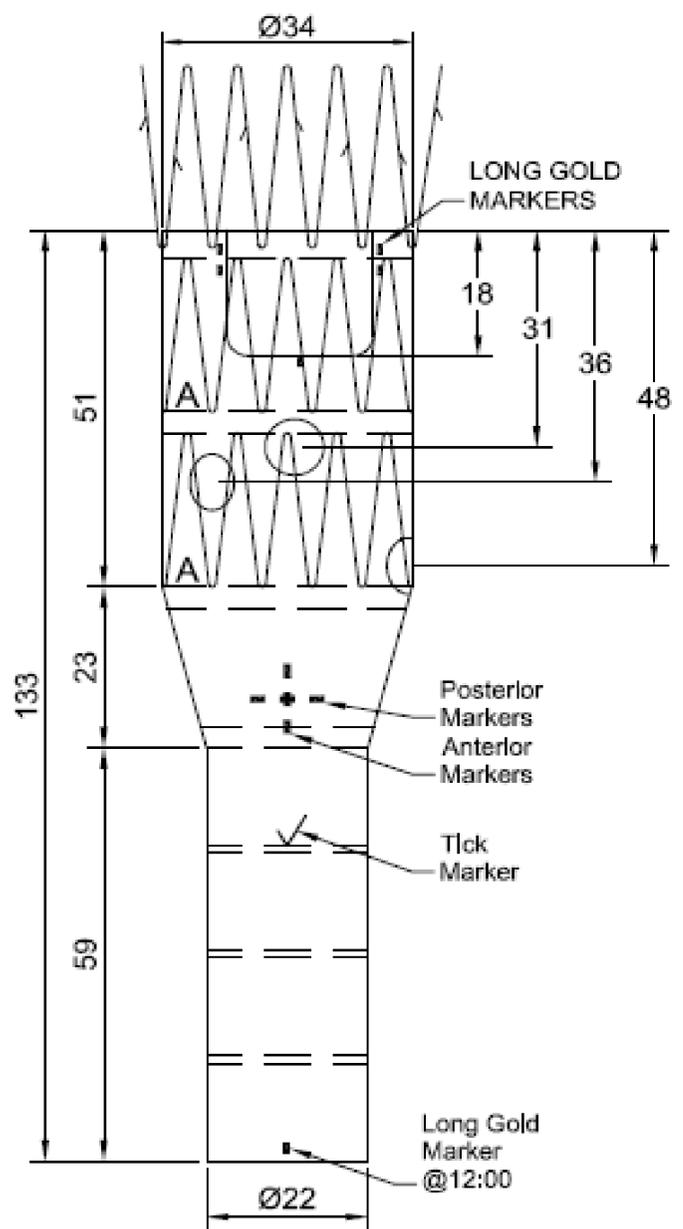




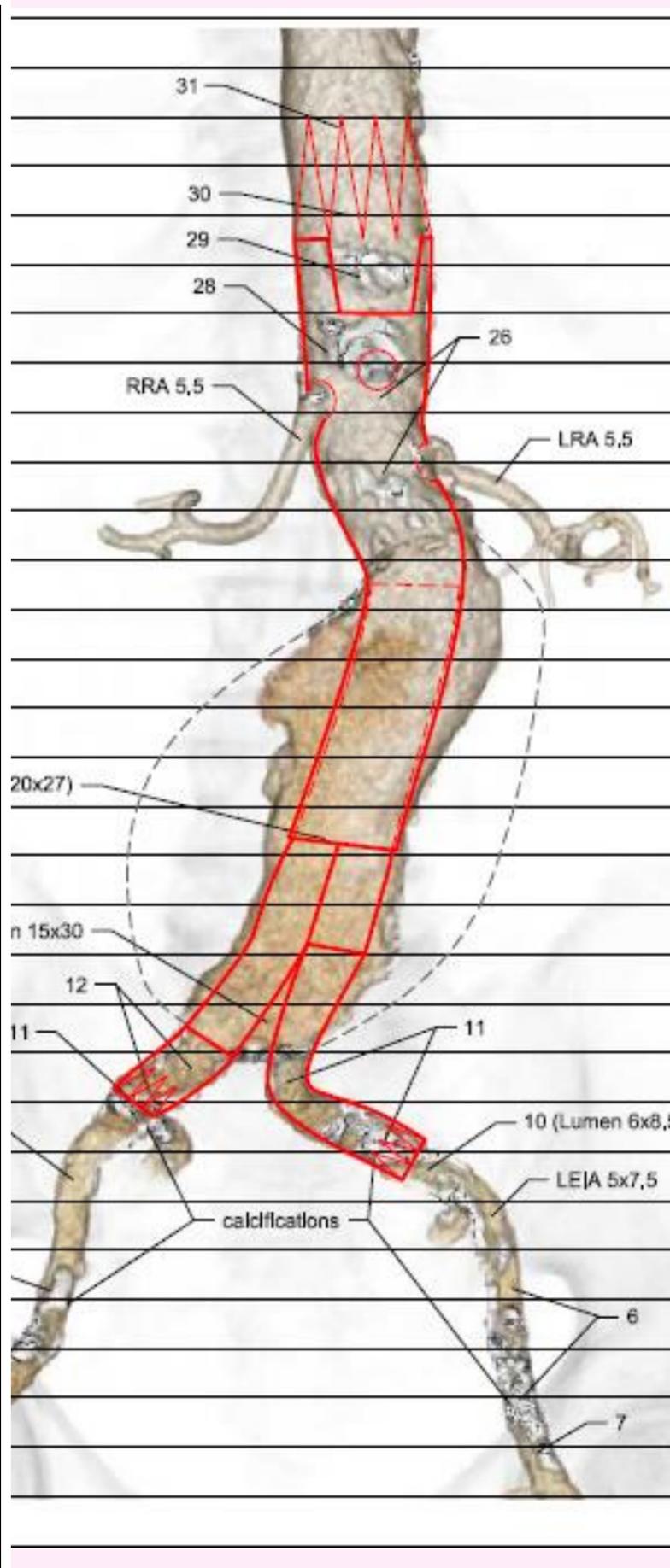


Conclusion

- FEVAR et BEVAR procedure mature
- Des iliaques jusqu'au coeur
- Technique mini invasive sans compromis sur l'étanchéité
- Diminution de la morbi mortalité
- Retour rapide aux activités



- REINFORCED SCALLOP #1**
 WIDTH: 20mm
 HEIGHT: 18mm
 CLOCK: 12:15
 IVD: 26mm
- REINFORCED LARGE FENESTRATION #1**
 Strut Free
 DIAMETER: 8mm
 DIST FROM PROX EDGE: 31mm
 CLOCK: 12:15
 IVD: 25mm
- REINFORCED SMALL FENESTRATION #1**
 WIDTH: 6mm
 HEIGHT: 8mm
 DIST FROM PROX EDGE: 36mm
 CLOCK: 10:15
 IVD: 23mm
- REINFORCED SMALL FENESTRATION #2**
 WIDTH: 6mm
 HEIGHT: 8mm
 DIST FROM PROX EDGE: 48mm
 CLOCK: 3:30
 IVD: 24mm
- DOUBLE DIAMETER REDUCING TIES
- Plus:*
- AAA-BIFURCATED-GRAFT**
 (As per ZFEN-D-12-28-76)
- Ipsilateral Leg Extension
ZISL-13-42
ZISL-13-59
- Contralateral Leg Extension
ZISL-13-59
ZISL-13-77



Please note the following: 1. By signing this graft plan you are confirming that the patient has consented to the provision of their personal information to Cook Medical. The patient understands that in order to plan and manufacture the requested device, Cook Medical may share his/her personal information with other Cook Group companies in the United States, Australia, Denmark, United Kingdom and Ireland and has consented to his/her personal information being so shared. 2. You are confirming that all clinically important features (eg. fenestration size / orientation, gold marker placement, sealing stents) are included in this graft design prior to your approval. 3. Unsigned plans or alterations may lead to a delay in the supply of this device. Please sign and date each page. If you wish to alter any part of this plan please initial and date each change.

Resultat open vs FEVAR anevrysme juxta renale

30 day outcome

- 30 day mortality: 2 vs 0 NS
- IDM 4 vs 2 NS
- dialyse 2 vs 0 NS
- pneumonia 15 vs 0 p=0,006
- reintervention 10 vs 3 NS

From the Society for Vascular Surgery

Fenestrated endovascular aneurysm repair and open surgical repair for the treatment of juxtarenal aortic aneurysms

 Check for updates

Raphael Soler, MD,^a Michel A. Bartoli, MD, PhD,^a Christopher Faries, BA,^b Julien Mancini, MD, PhD,^c Gabrielle Sarlon-Bartoli, MD, PhD,^d Stephan Haulon, MD, PhD,^e and Pierre Edouard Magnan, MD,^a
Marseille and Paris, France; and New York, NY

Journal of Vascular Surgery
September 2019