

**Homme 54 ans vient aux urgences amené par les pompiers pour douleur thoracique antérieure aiguë à type de déchirure , de début extrêmement brutal , irradiant vers le cou et la mâchoire inférieure**

**1 Quelles sont vos hypothèses diagnostiques ?**

- **Infarctus du myocarde**
- **Dissection aortique ( ou hématome intramural de l'aorte ascendante)**
- **Embolie pulmonaire**

## **2 Quels éléments cliniques faut il rechercher d'emblée?**

- Antécédents d'angor/ test à la trinitrine**
- HTA antécédent ou poussée hypertensive**
- Asymétrie des pouls périphériques**
- Signes neurologiques de déficit**
- Syncope**
- Troubles psychiques**
- Sd de CI Bernard Horner**
- Signes respiratoires (dyspnée cyanose polypnée..)**

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- Syncope
- Troubles psychiques
- Sd de CI Bernard Horner
- Signes respiratoires (dyspnée cyanose polypnée..)

### **3 Quelle est votre prise en charge immédiate?**

- **patient en salle de déchoquage**
- **scope pouls TA saturation**
- **VVP**

**Prélèvements urgents:**

**dosages biologiques du diagnostic de l'IDM :**  
**(myoglobine , troponine , CPK , LDH)**  
**NFS groupe RAI ionogramme**

- **ECG**
- **Cliché thoracique de face sur le brancard**

# Introduction

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## PRACTICE GUIDELINE: FULL TEXT

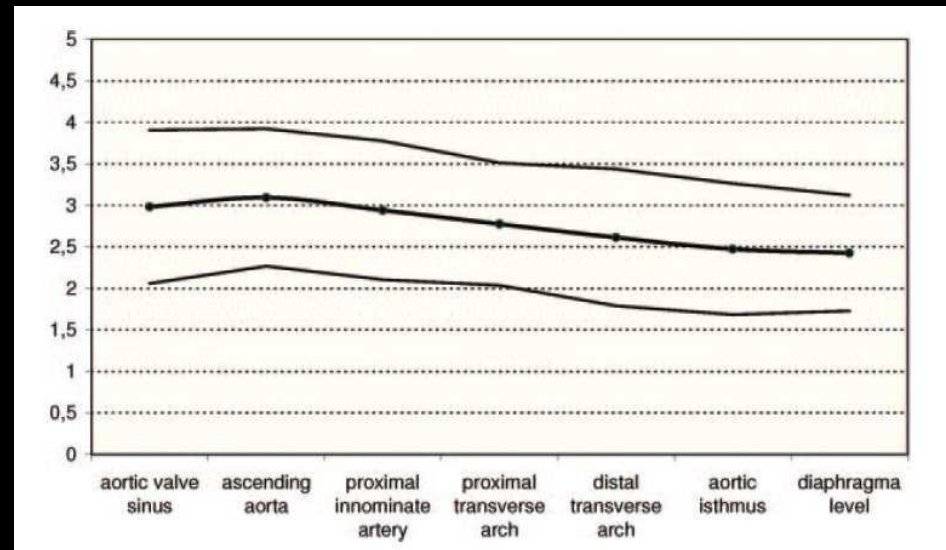
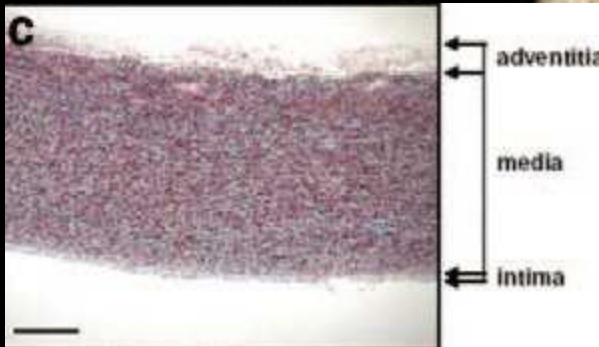
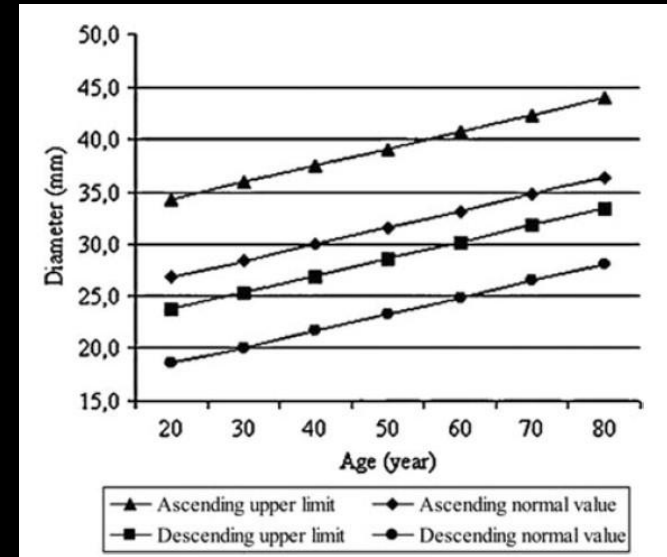
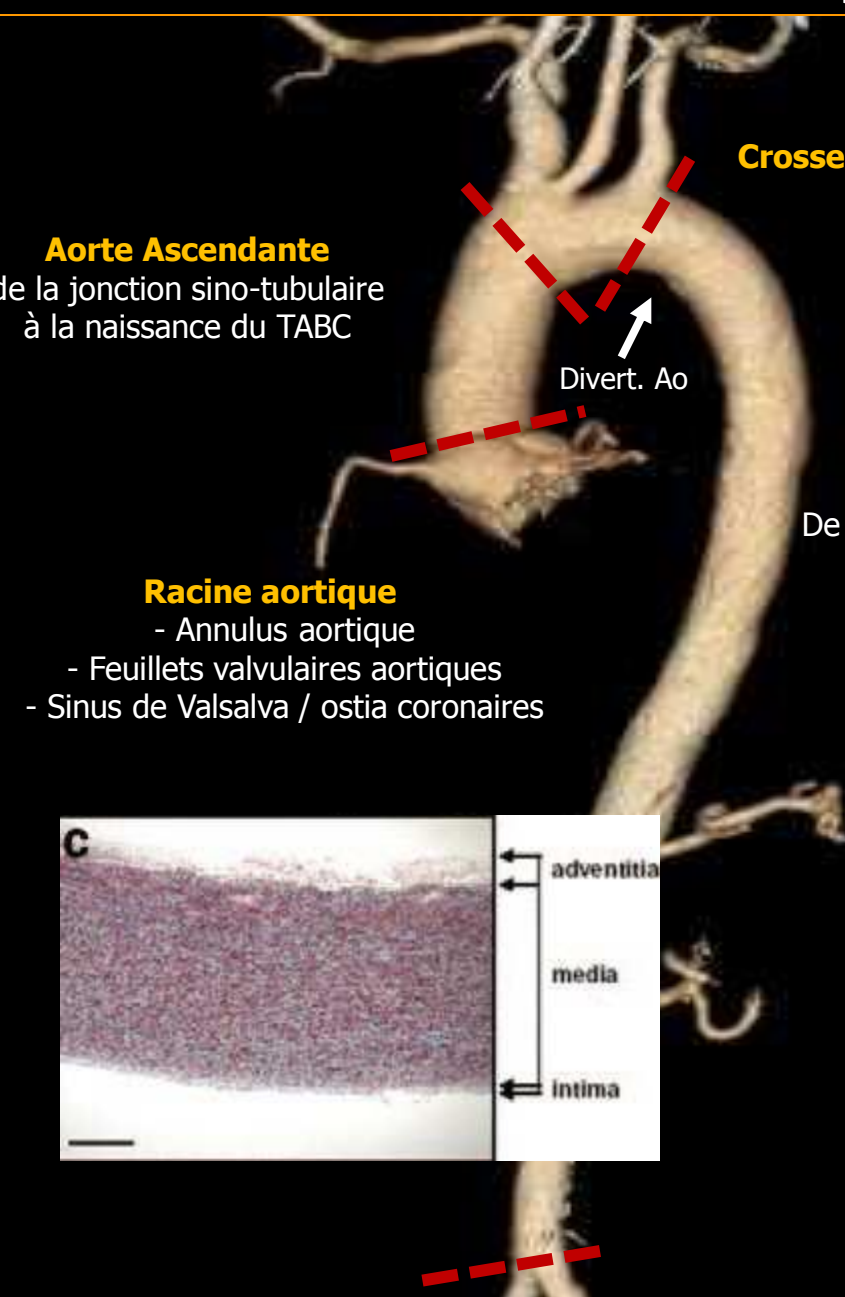
# 2010 ACCF/AHA/AATS/ACR/ASA/SCA/SCAI/SIR/STS/SVM Guidelines for the Diagnosis and Management of Patients With Thoracic Aortic Disease

A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines, American Association for Thoracic Surgery, American College of Radiology, American Stroke Association, Society of Cardiovascular Anesthesiologists, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of Thoracic Surgeons, and Society for Vascular Medicine

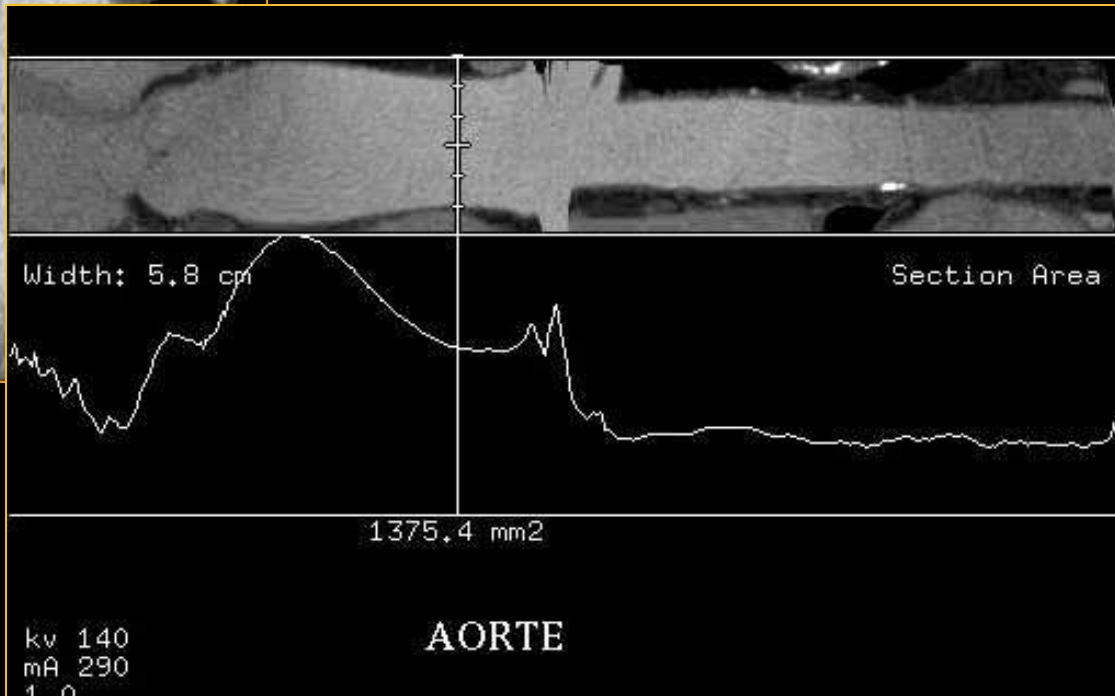
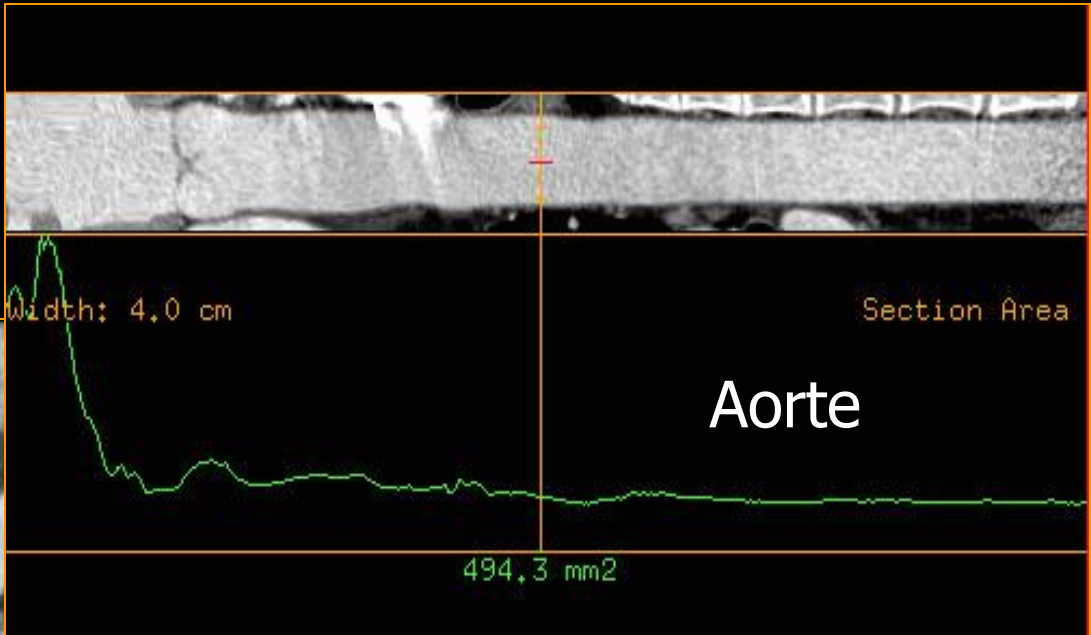
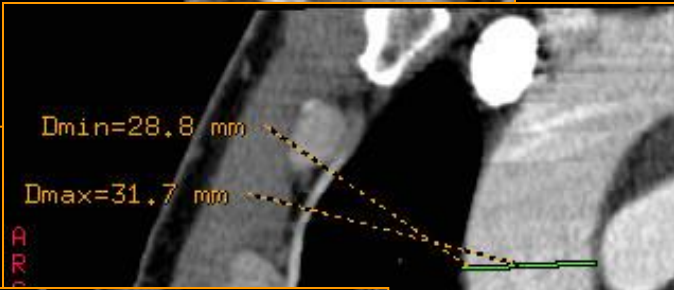
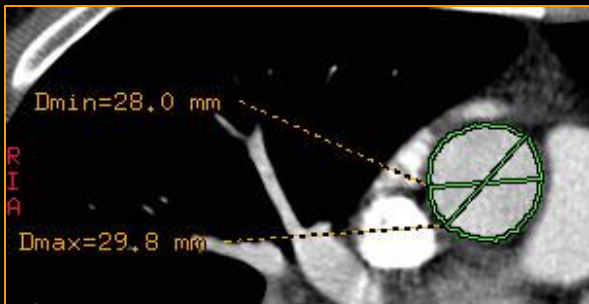
*Endorsed by the North American Society for Cardiovascular Imaging*

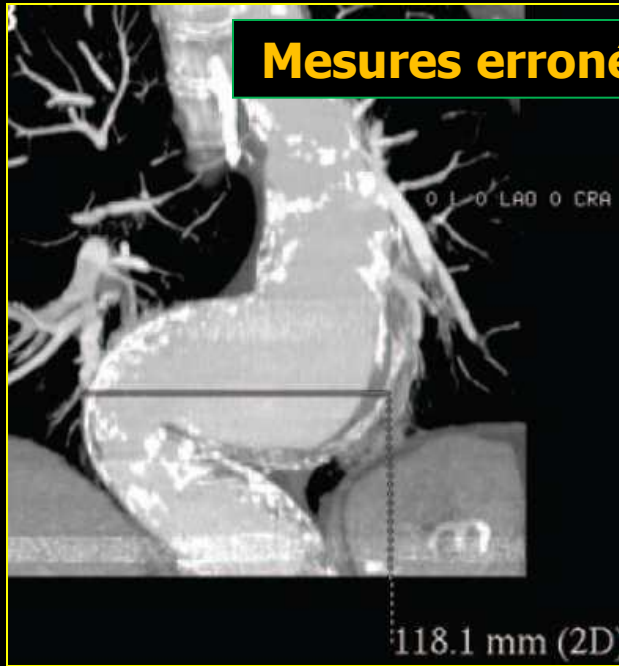
- ✓ **Urgence médico-radio-chirurgicale** mettant en jeu rapidement le pronostic vital (rupture vasculaire et syndrome ischémique)
- ✓ Pathologie complexe et dynamique (mécanismes physio-pathologiques variés)
- ✓ **Point Commun** : Brèche intimale (notion récente pour l'HIM)

# Terminologie et rappels

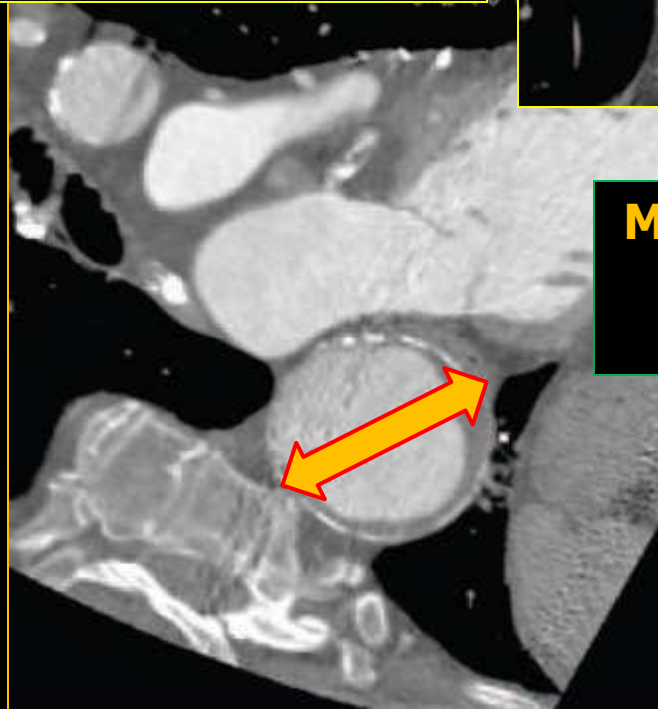


fct de l'âge, du sexe, du BMI et de localisation aortique





**Mesures erronées !!!!**



**Mesures valables ++**  
Double obliquité  
Analyse de vaisseau



# Terminologie et rappels

tions of thoracic aortic diseases (see Section 9.2).

- As noted in Section 18, there are several areas where greater resources for research and both short- and long-term outcomes registries are needed.

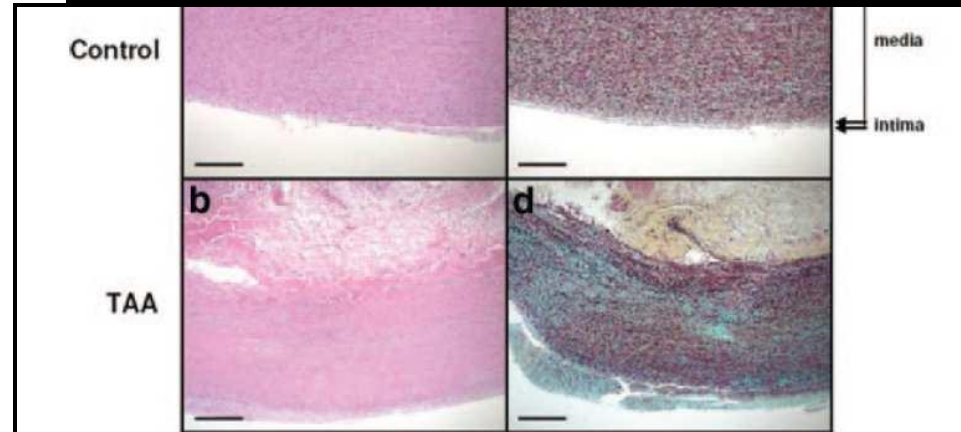
## 1.5. Glossary of Terms and Abbreviations Used Throughout Guideline

**Aneurysm (or true aneurysm):** a permanent localized dilatation of an artery, having at least a 50% increase in diameter compared with the expected normal diameter of the artery in question. Although all 3 layers (intima, media, and adventitia) may be present, the intima and media in large aneurysms may be so attenuated that in some sections of the wall they are undetectable.

**Pseudoaneurysm (or false aneurysm):** contains blood resulting from disruption of the arterial wall with extravasation of blood contained by periarterial connective tissue and not by the arterial wall layers (see Section 8.4). Such an extravascular hematoma that freely communicates with the intravascular space is also known as a pulsating hematoma.<sup>8–10</sup>

als.org/ by guest on December 3, 2011

2010 Guidelines on Thoracic Aortic Disease e275



**Ectasia:** arterial dilatation less than 150% of normal arterial diameter.

**Arteriomegaly:** diffuse arterial dilatation involving several arterial segments with an increase in diameter greater than 50% by comparison to the expected normal arterial diameter.

**Thoracoabdominal aneurysm (TAA):** aneurysm involving the thoracic and abdominal aorta (see Section 9.2.2.3).

**Abdominal aortic aneurysm (AAA):** aneurysm involving the infradiaphragmatic abdominal aorta.

**Aortic dissection (AoD):** disruption of the media layer of the aorta with bleeding within and along the wall of the aorta. Dissection may, and often does, occur without an aneurysm being present. An aneurysm may, and often does, occur without dissection. The term “dissecting aortic aneurysm” is often used incorrectly and should be reserved only for those cases where a dissection occurs in an aneurysmal aorta (see Section 8.1).

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**2.2. No**  
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## 2. The Thoracic Aorta

# Stratégie d'exploration

## Etude IRAD (1) : choix de la méthode diagnostique

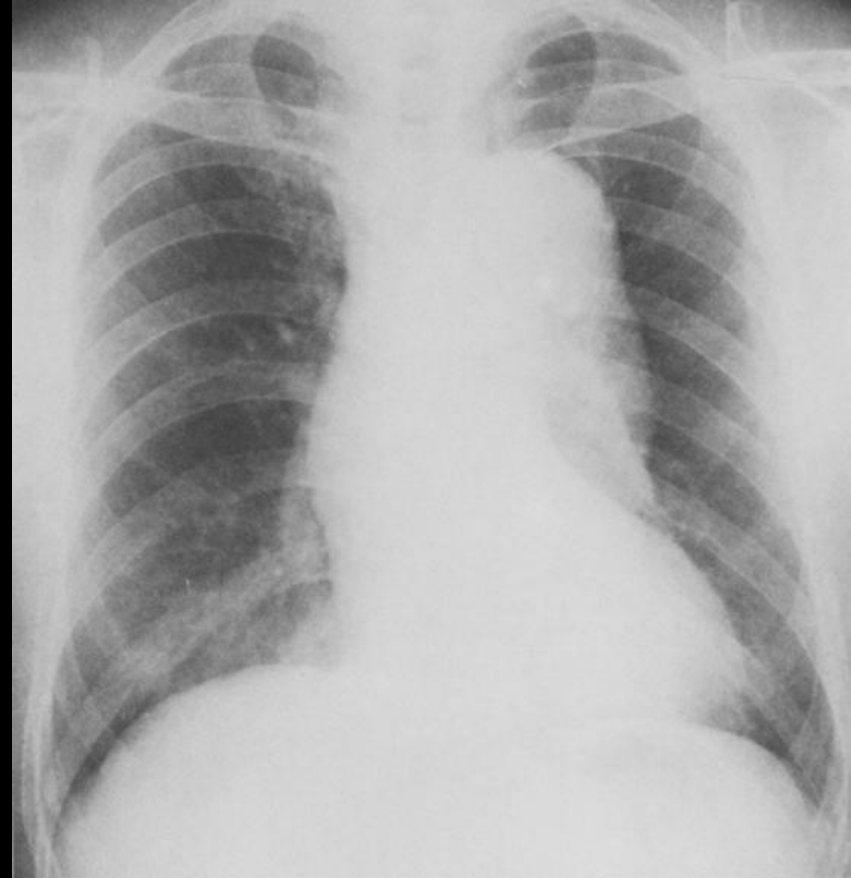
- Fonction de la disponibilité, de la performance du matériel, de l'expérience de l'équipe, du risque et de la tolérance de l'examen
- **TDM** (75%) et **échocardiographie** (72%)
- Angiographie (22%) et IRM (19%)
- En pratique moyenne de 1,8 examen/patient
- En 1<sup>ère</sup> intention **TDM 63%** / **ECHO 32%** / **ANGIO 4%** / **IRM 1%**



TDM : excellent bilan des lésions  
SAUF VALVE AORTIQUE  
Complémentarité avec échocardiographie

(1) Hagan PG, Nienaber CA, Isselbacher EM, et al. The International Registry of Acute Aortic Dissection (IRAD): new insights into an old disease. JAMA 2000 ; 283 : 897-903.

**4. Le cliché thoracique pratiqué est le suivant. Quel(s) élément(s) sémiologique(s) peut(vent), dans le contexte évoqué, être retenus pour l'orientation diagnostique ?**



**-agrandissement du bouton aortique** et comblement de la fenêtre aorto-pulmonaire

**-abaissement du tronc souche gauche**

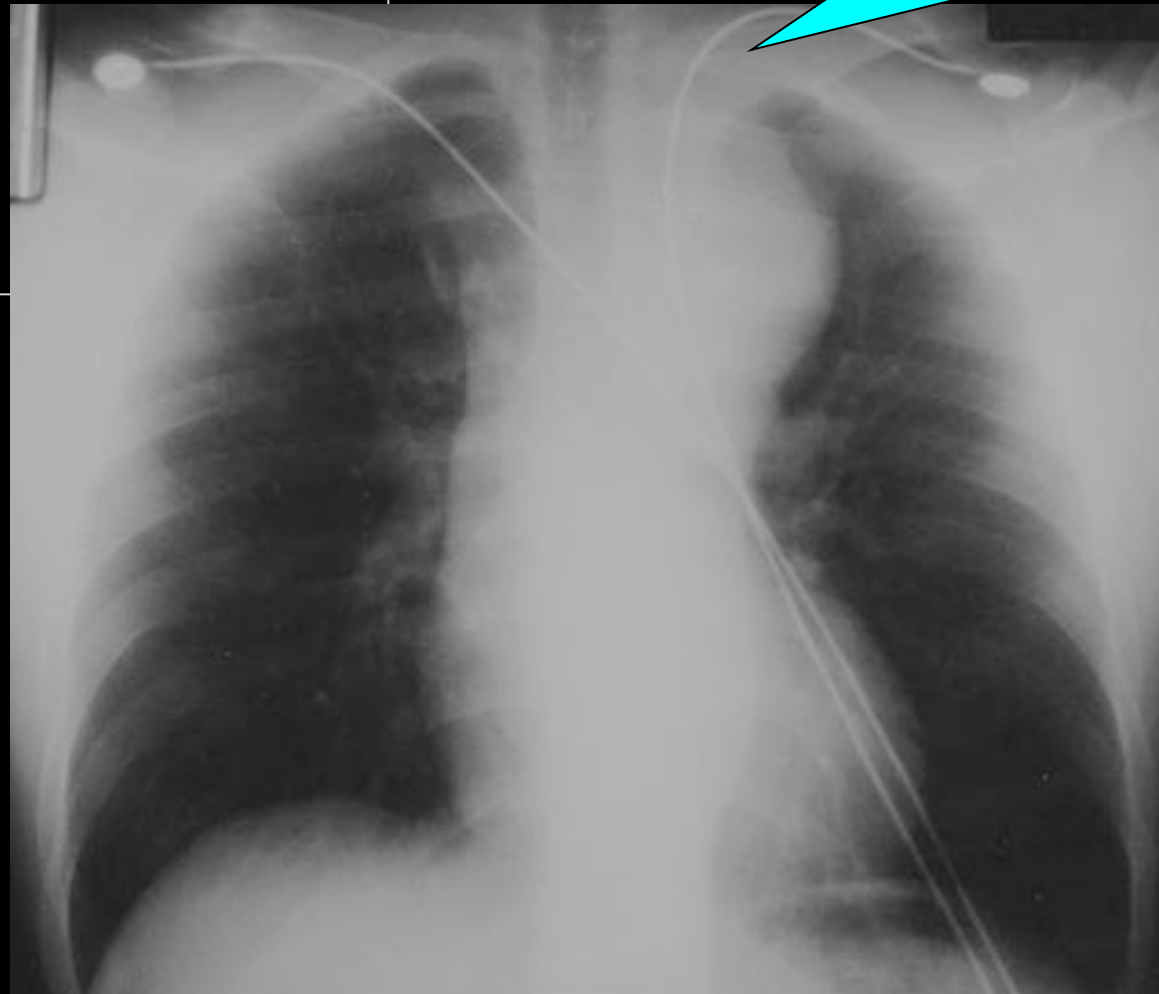
**-déviation trachéale vers la droite**

**-calcifications arciformes endoluminales aortiques**

**-coiffe apicale gauche**

**-déviation de l'œsophage**

**-effacement de la ligne paratrachéale**



**5 quel(s) examen(s) complémentaire(s) faut-il prévoir en matière d'imagerie ?**

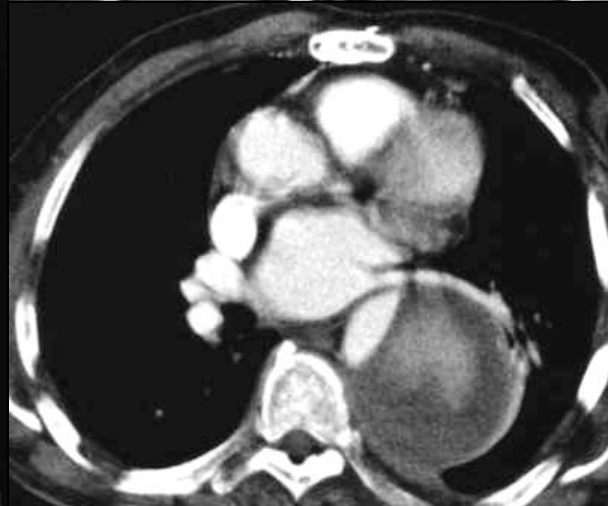
**Echocardiographie transthoracique ++**

**Échographie trans-oesophagienne +++ (...???) plus logique après le scanner, si encore nécessaire**

**Angio- scanner volumique de l'aorte thoracique et abdominale ± troncs supra-aortiques ± artères des membres inférieurs**

**Angio-IRM "contrastée" (avec injection de gadolinium)**

**6 .Un angio-scanner a été pratiqué qui montre les images suivantes . Quel est le diagnostic ? et quelles sont les orientations thérapeutiques ?**

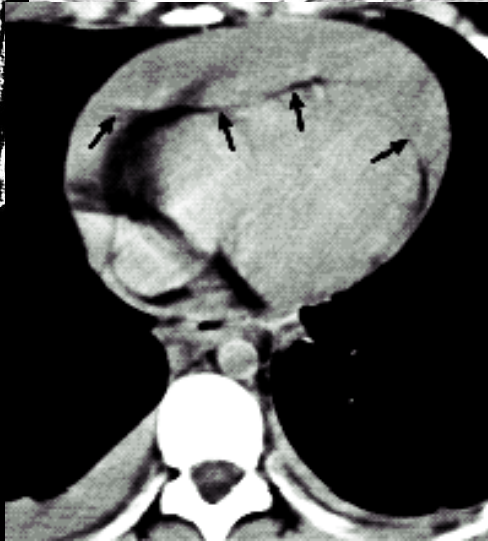
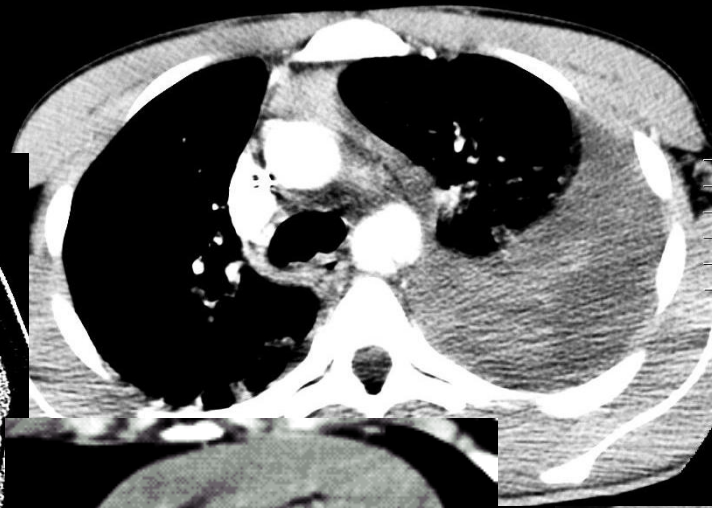
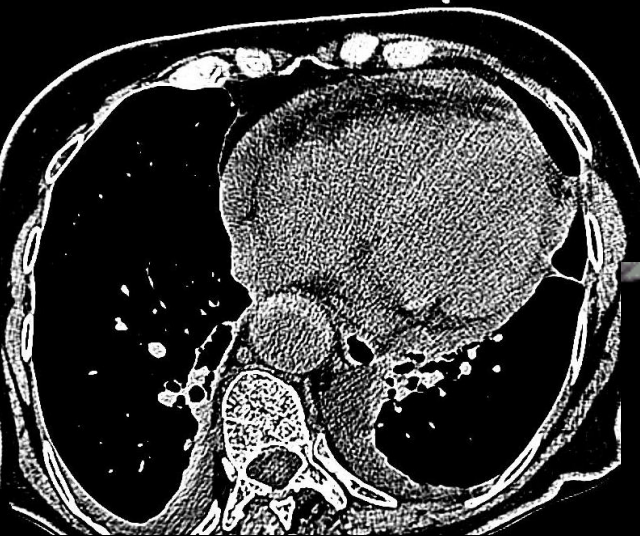


**Prise en charge en milieu spécialisé  
Contrôle TA en dessous de 10 de diastolique  
Extension précise de la dissection classification de de Bakey  
Chirurgie si aorte ascendante atteinte**

# Les signes TDM

## Signes indirects :

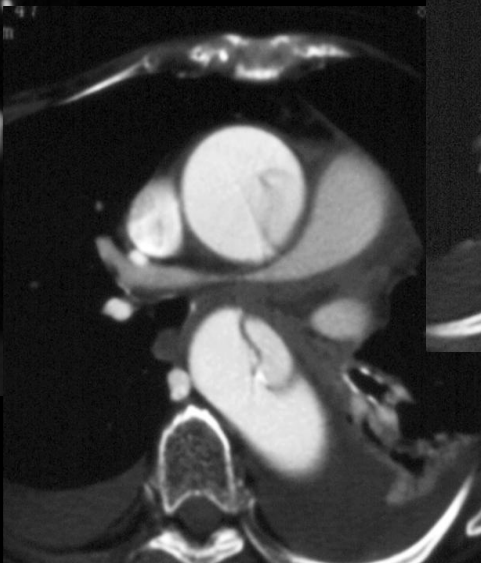
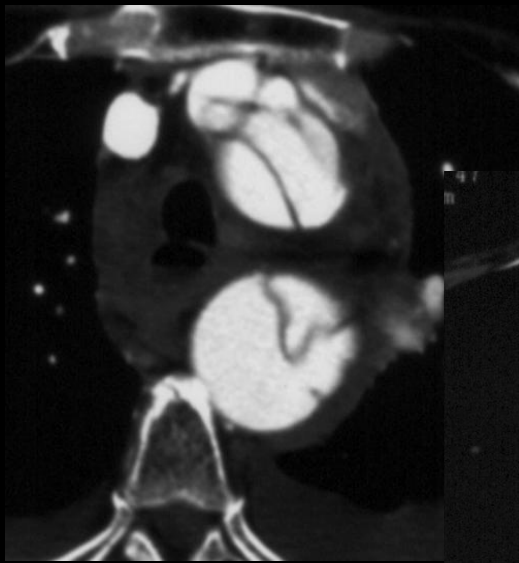
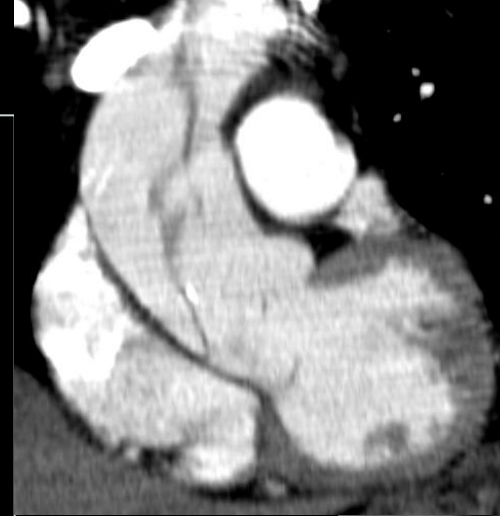
- déplacement calcifications intimaes (sans injection++)
- hémothorax (G)
- Hémopéricarde



# Les signes TDM

## Signes directs :

- membrane flottante séparant les 2 chenaux
- rehaussement différé du faux chenal  
**inversion gradient en cours d'acquisition**



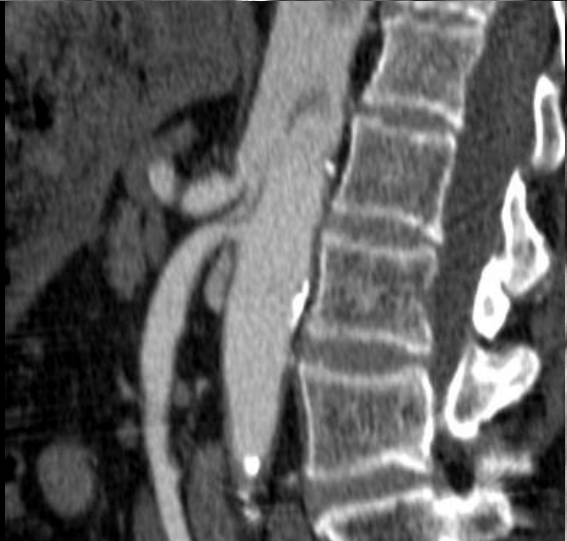
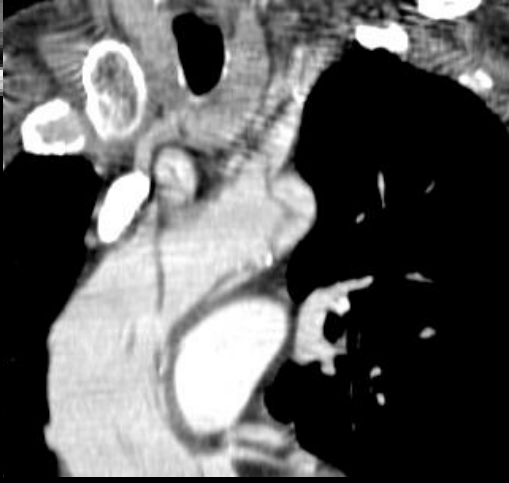
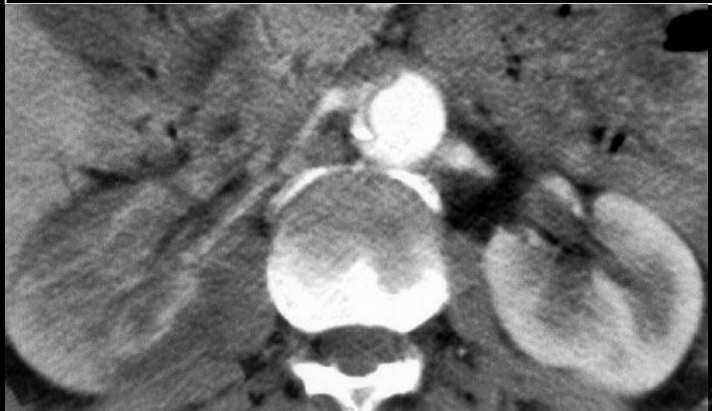
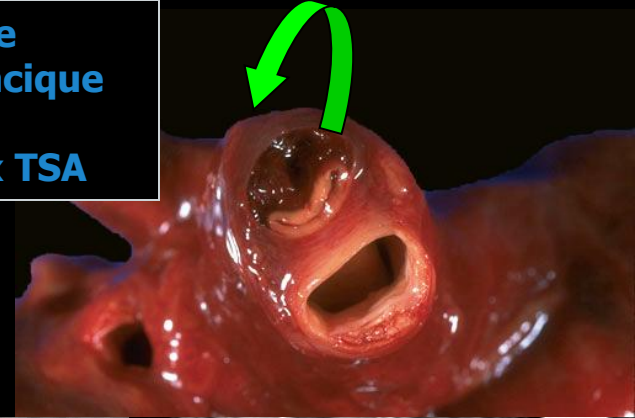


# Les signes TDM

## Signes directs :

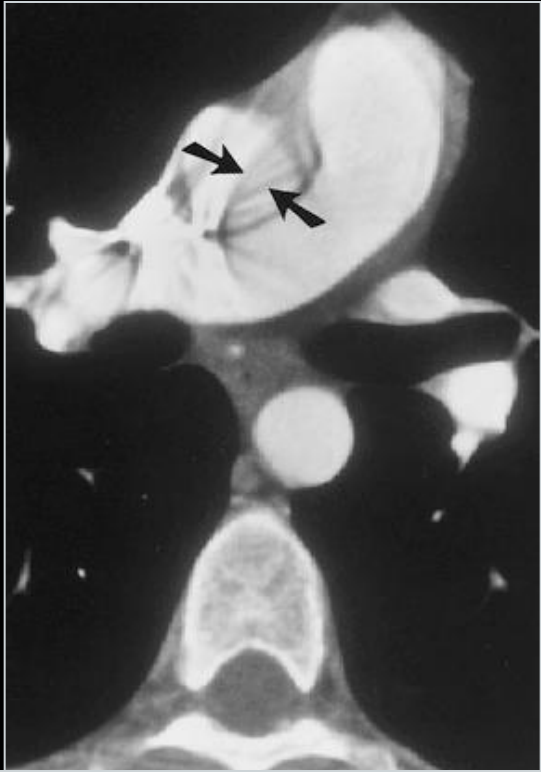
- extension précise ++  
Aorte ascendante et coronaires  
A. viscérales et TSA  
A. iliaques

dissection de l'aorte thoracique ascendante étendue aux TSA

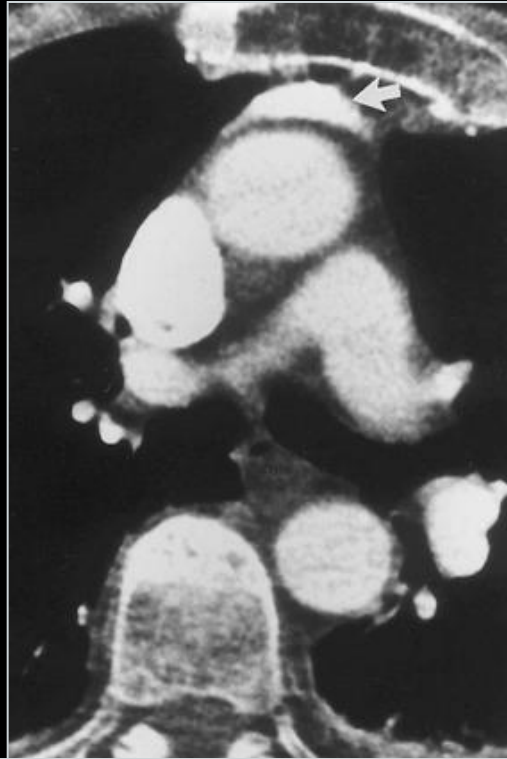


dissection de l'aorte thoracique étendue à l'AMS et ARDte

## Fausses dissections au scanner



**Artéfacts cinétiques  
cardiaques**



**Confusion avec  
TVBC G**

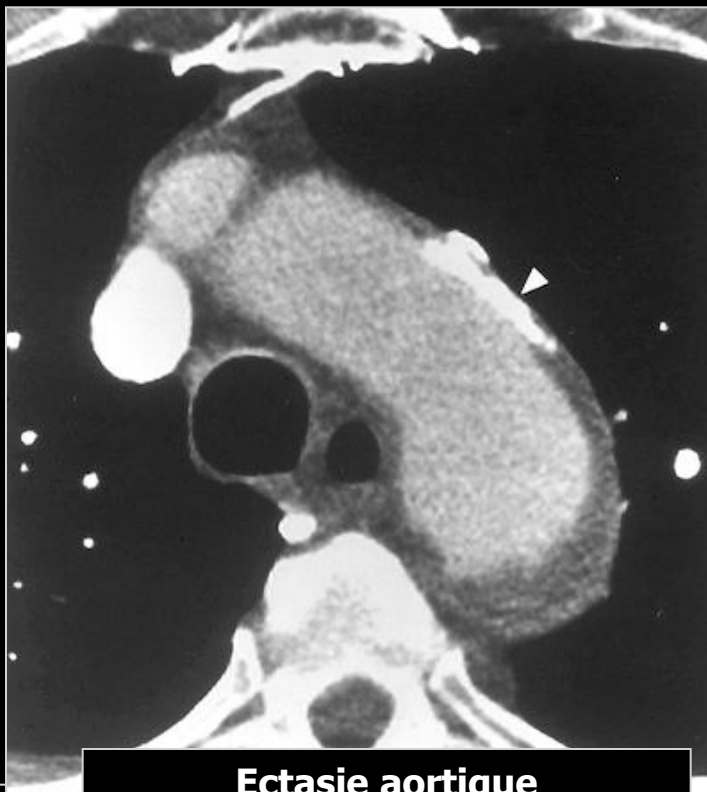


**Confusion avec veine  
pulmonaire inférieure G**

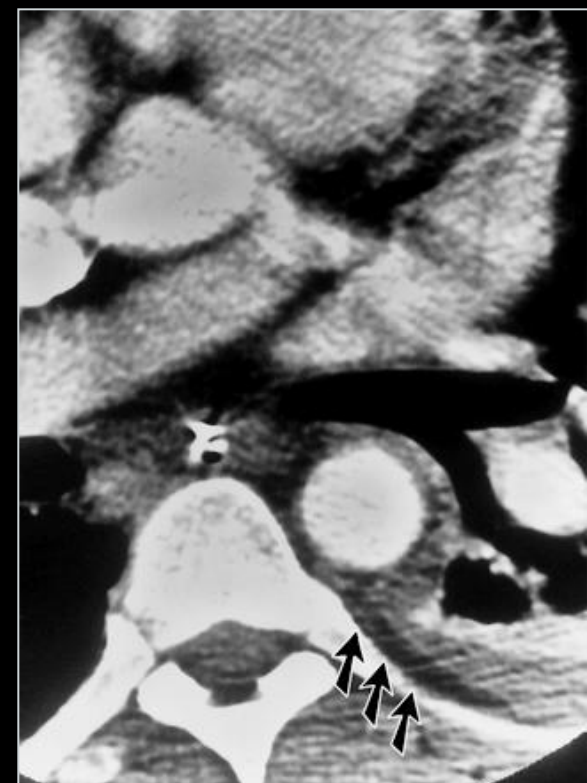
## Fausses dissections au scanner



Valves aortiques



Ectasie aortique  
athéromateuse



Épanchement pleural

# La dissection aortique

- **Définition :**
  - **clivage longitudinal de la média par hématome disséquant**
  - **communications avec la lumière (déchirures intimo-médiales)**
  - **faux chenal (cavité intra pariétale séparée du vrai chenal par membrane intimale):**
    - **trajet hélicoïdal**
    - **effet de masse sur vrai chenal**

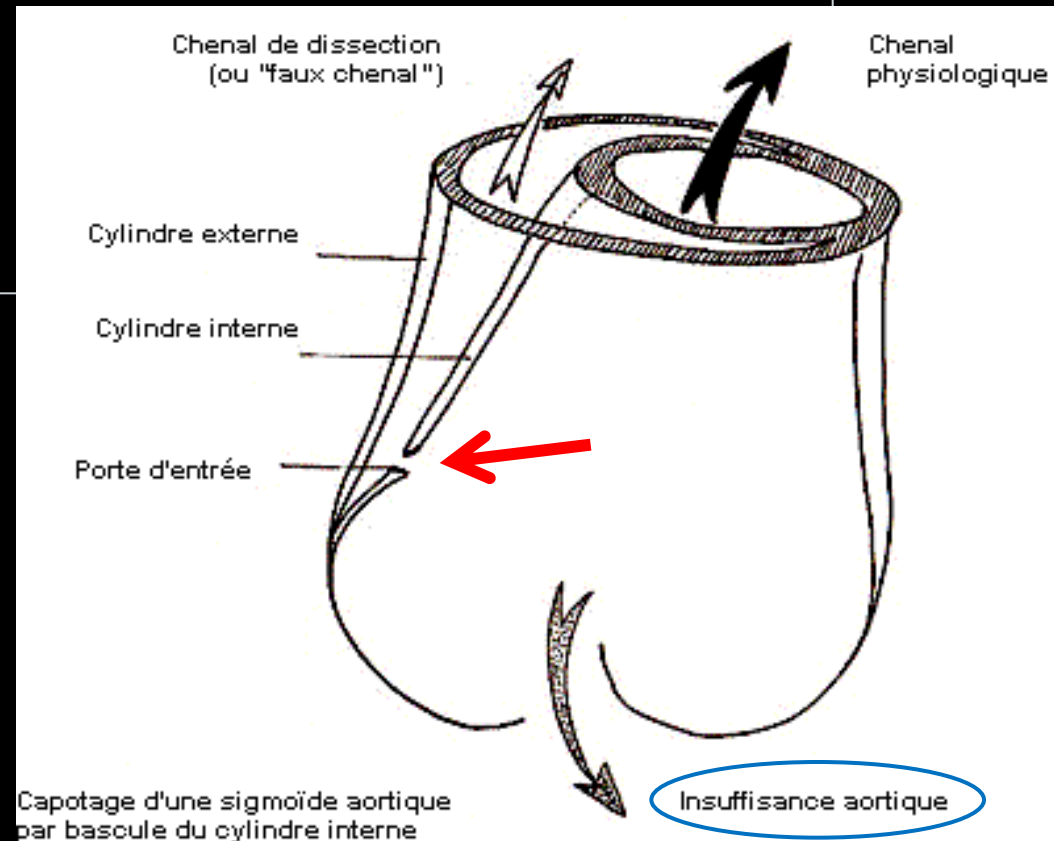
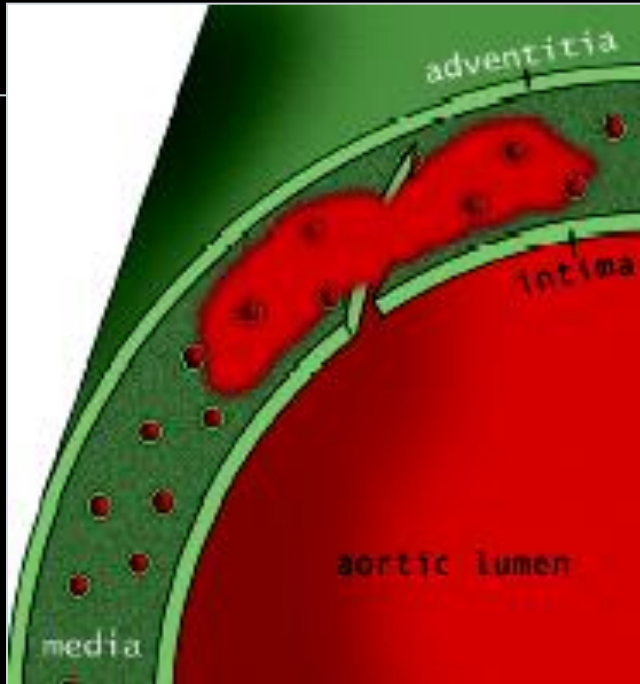
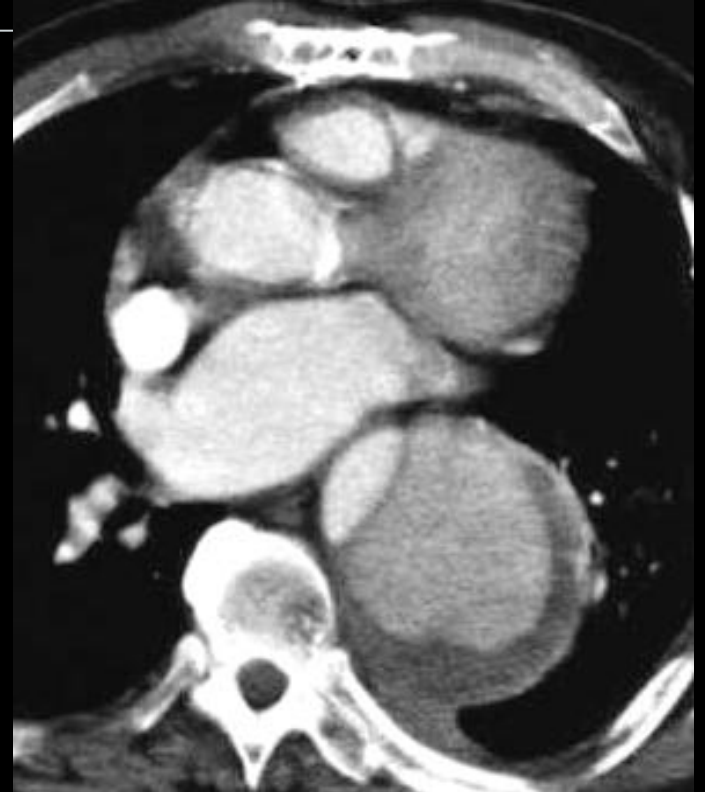
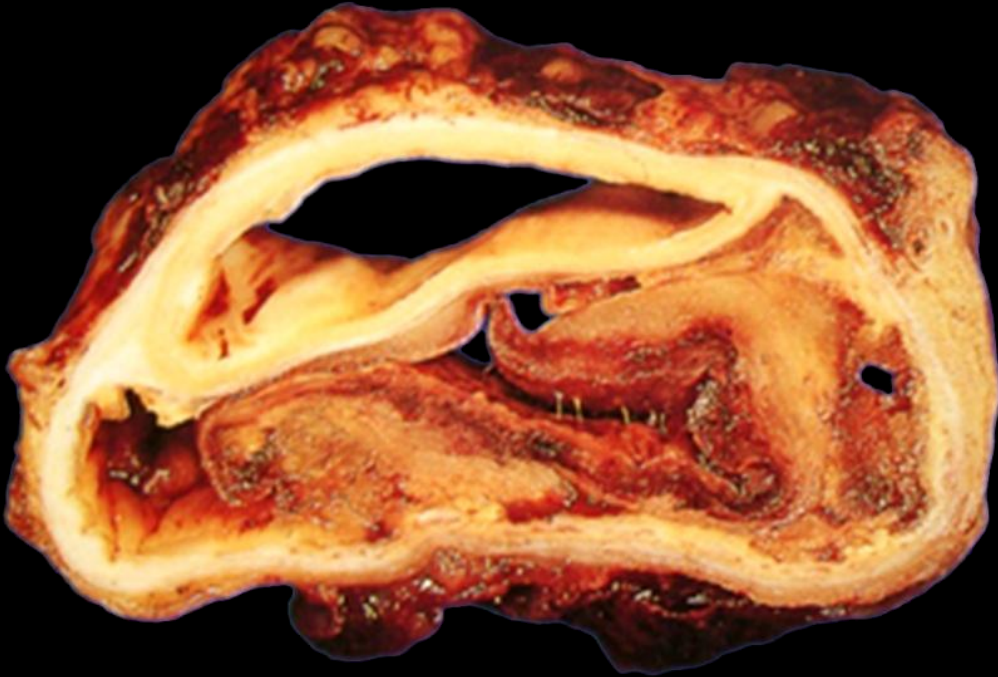


Fig.1 : Mécanisme de la DAA, et ses conséquences.

# La dissection aortique

## Étiologie

- HTA +- Athérome
- Malformations (bicuspidie, coarctation)
- Grossesse
- Dystrophie tissu élastique (Marfan, Ehlers-Danlos...)



## Évolution

### Dilatation faux chenal

- risque rupture
- compression du vrai chenal
- < si thrombose faux chenal

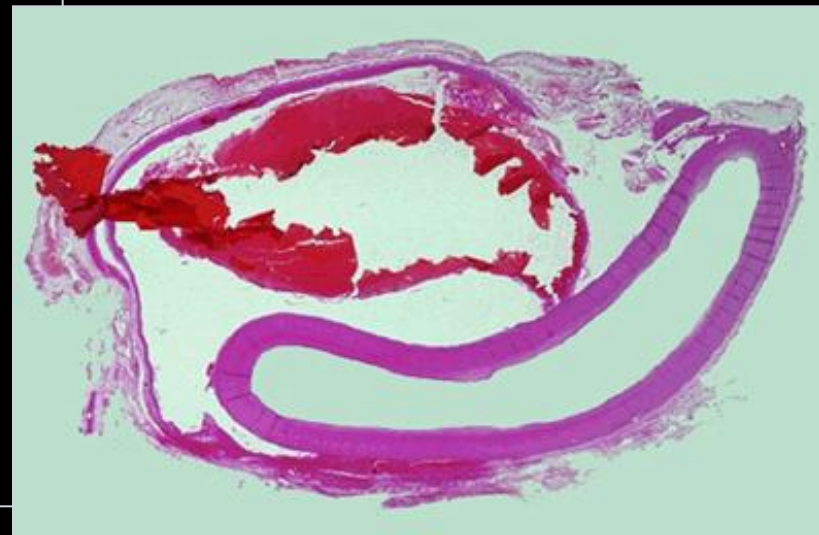
### Dilatation vrai chenal : HTA, âge ++, athérome

- chir si > 6cm

### Complications abdominales : 27%

- obstruction statique : flap entre dans A
  - (ttt par stent)
- o. dynamique : flap couvre ostium
  - (fenestration, pontage)

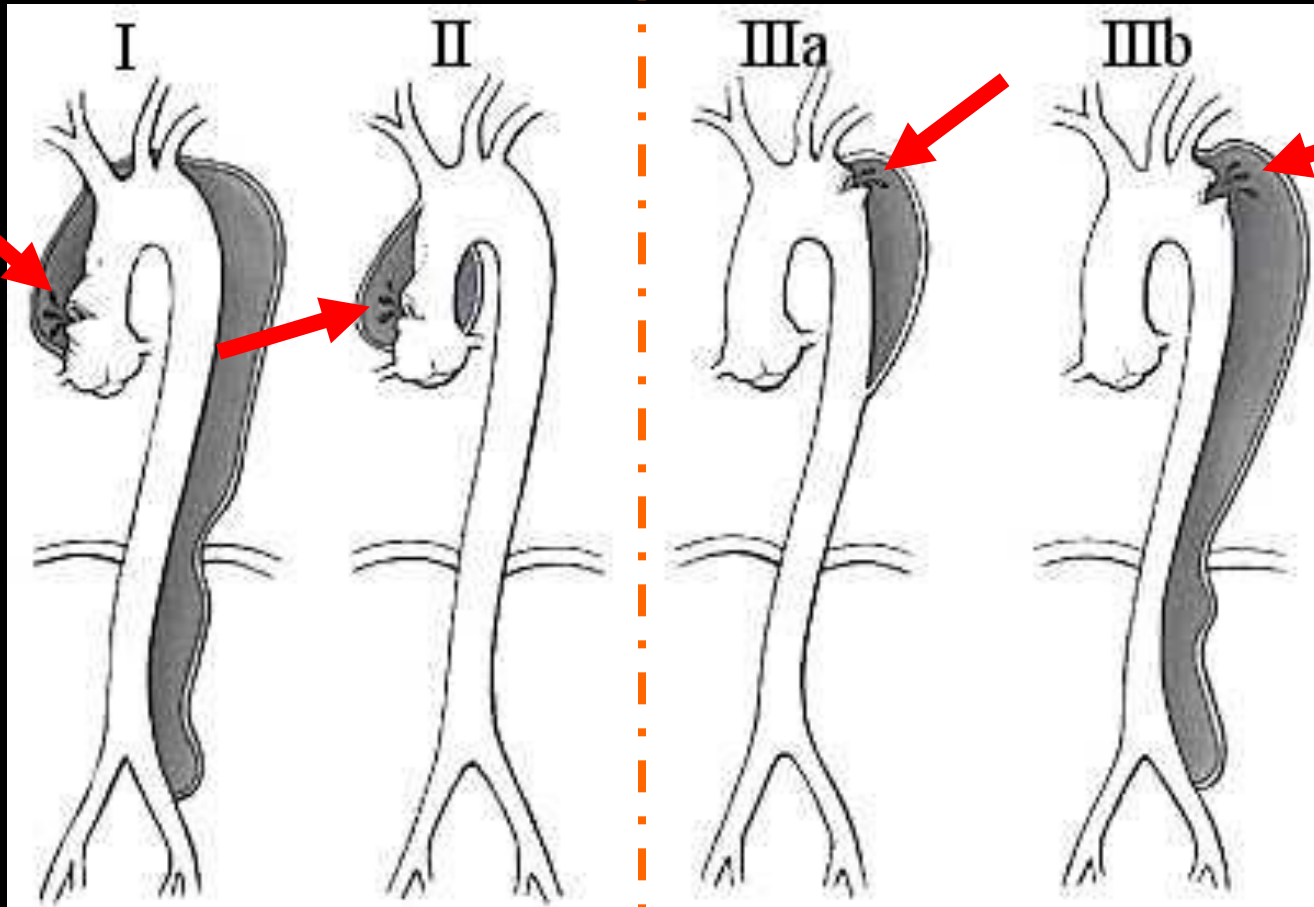
### Thrombose iliaque



# Imagerie et orientations thérapeutiques des dissections aortiques

De Bakey type I et II

De Bakey type III



Stanford type A

Stanford type B

# Classification des brèches intimaes selon Svensson

## Type I

DA classique avec brèche intimale et double lumière séparée d'un flap

## Type II

HIM sans brèche intimale imagée bien que retrouvée en per-opératoire ou à l'autopsie

## Type III

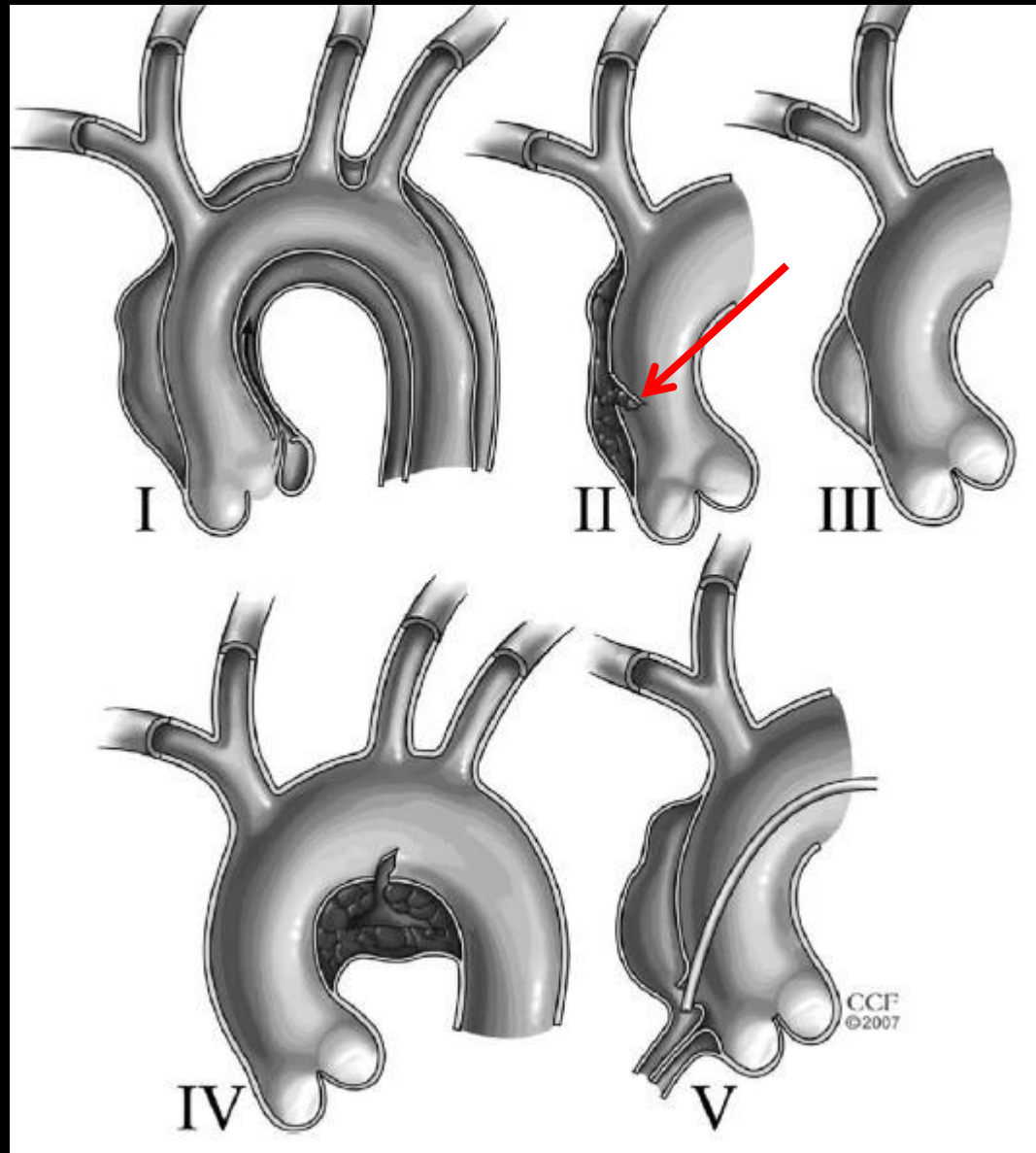
Déchirure intimale limitée sans hématome médial avec renflement excentré au site de dissection suspendue (Marfan +++ ) *diagnostic difficile en CT ou ETT*

## Type IV

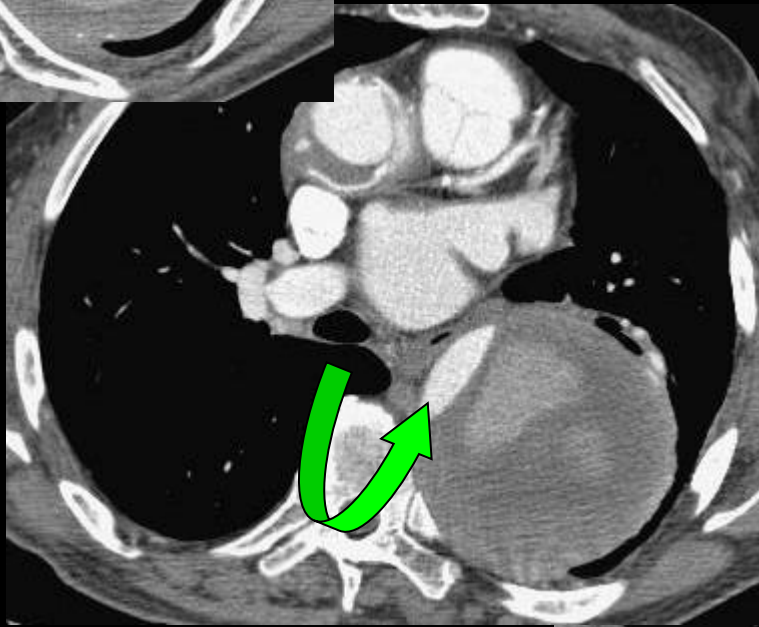
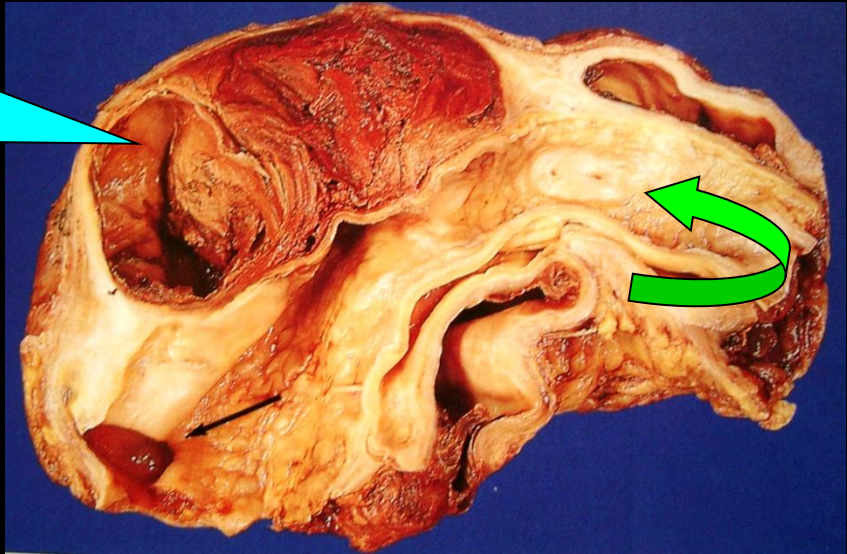
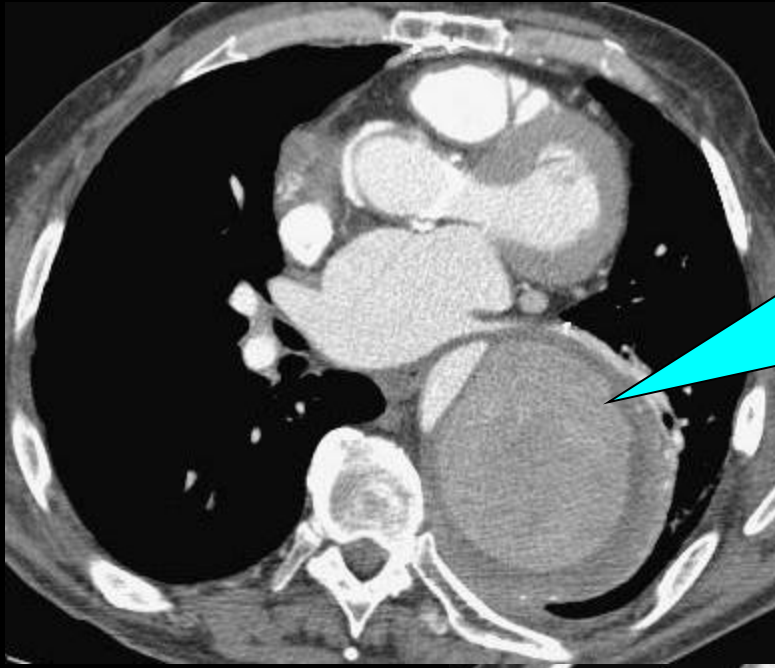
ulcère athéromateux profond jusqu'à l'adventice avec hématome localisé ou anévrisme sacculaire

## Type V

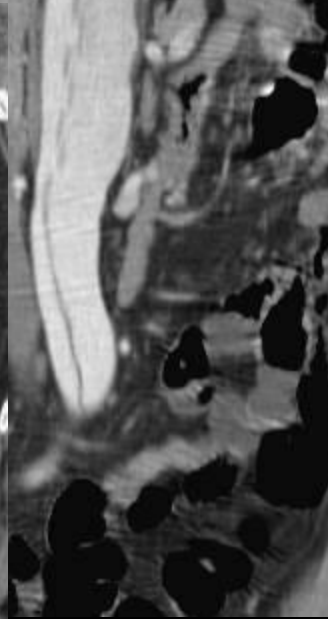
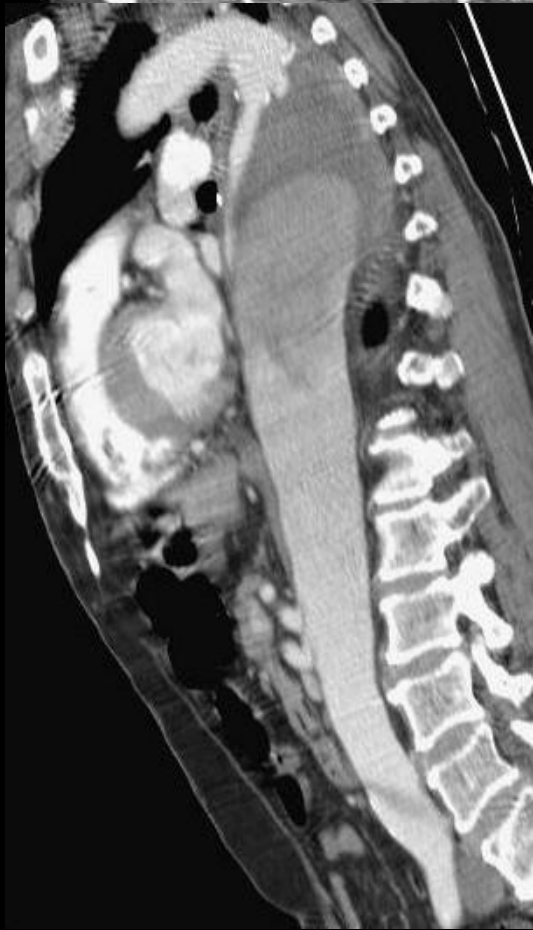
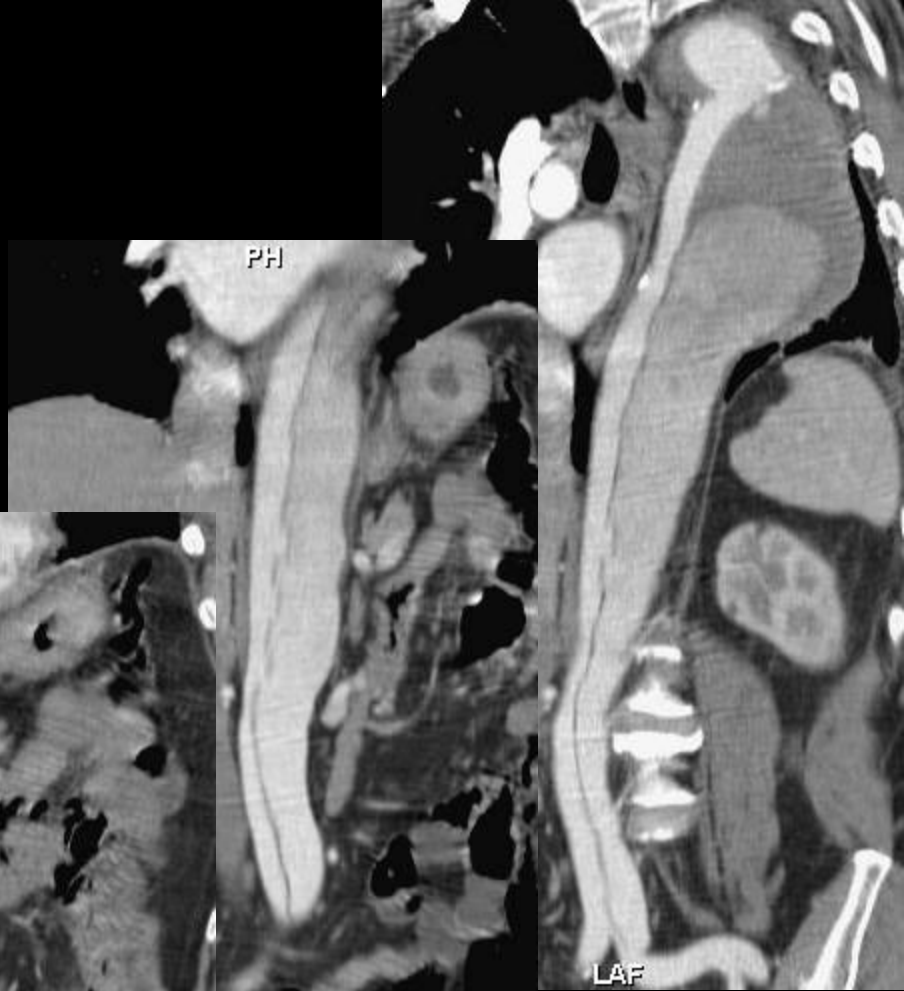
Brèche intimale iatrogène (KT,Chir) ou traumatique (décélération)

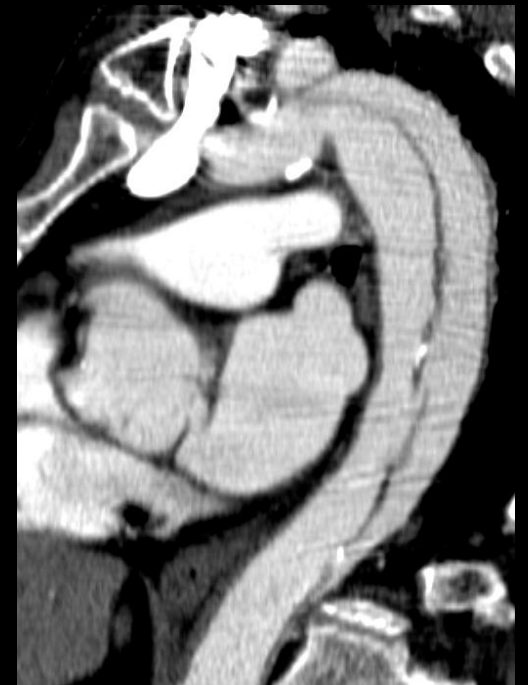
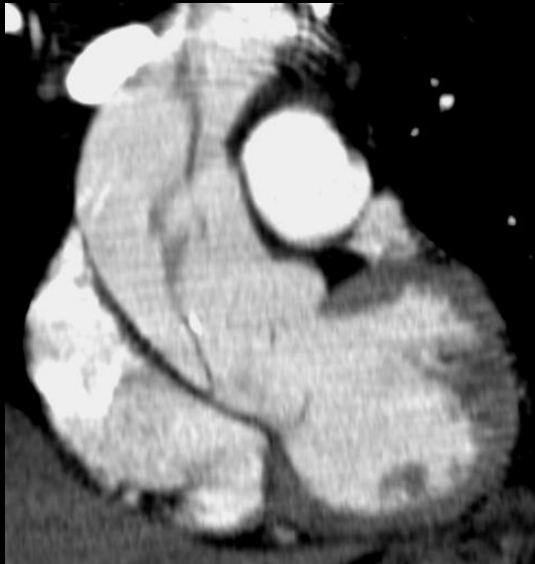




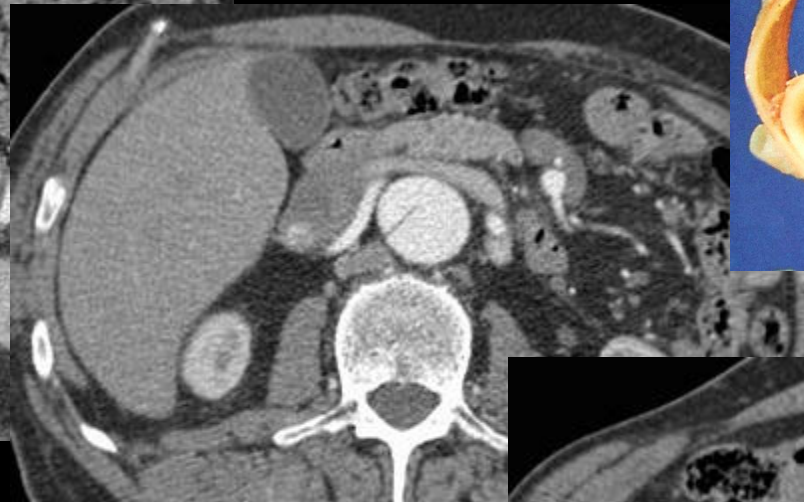


**Dilatation du faux chenal**

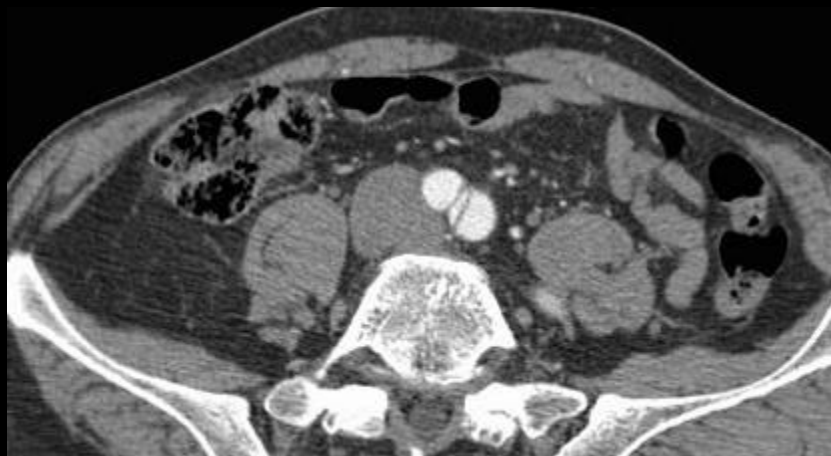
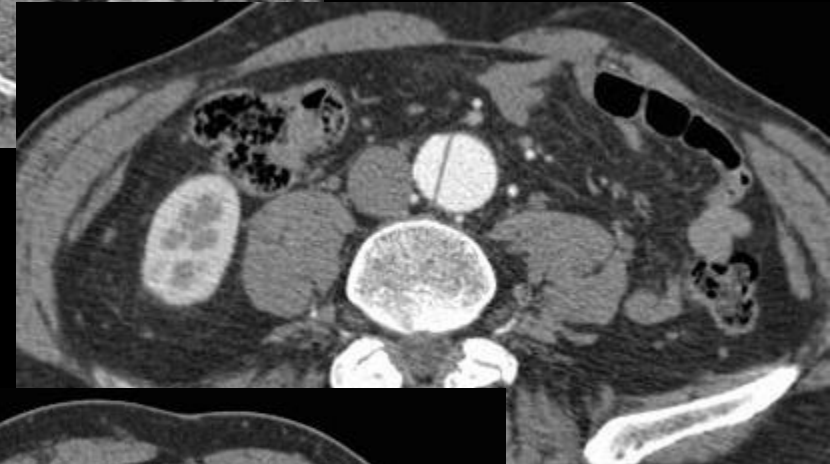




**Dissection de type I et re-entrées**

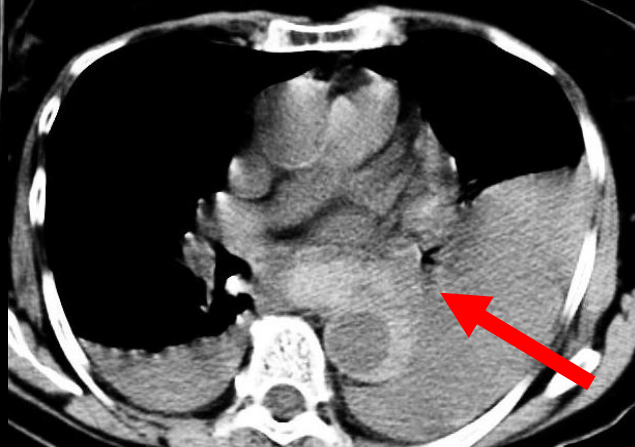
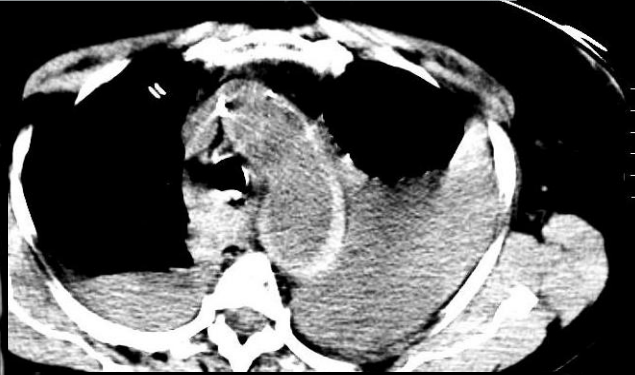
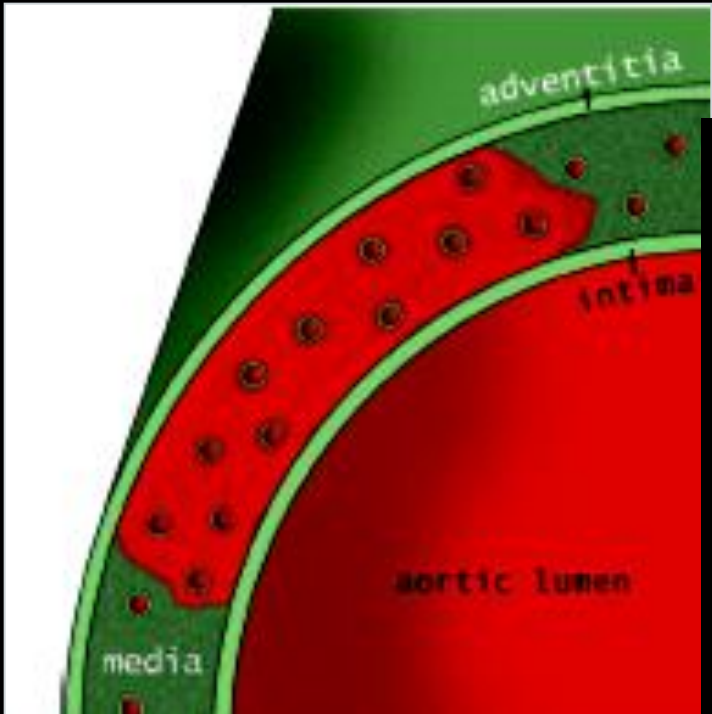


**Dissection de type III entrée sous rénale**



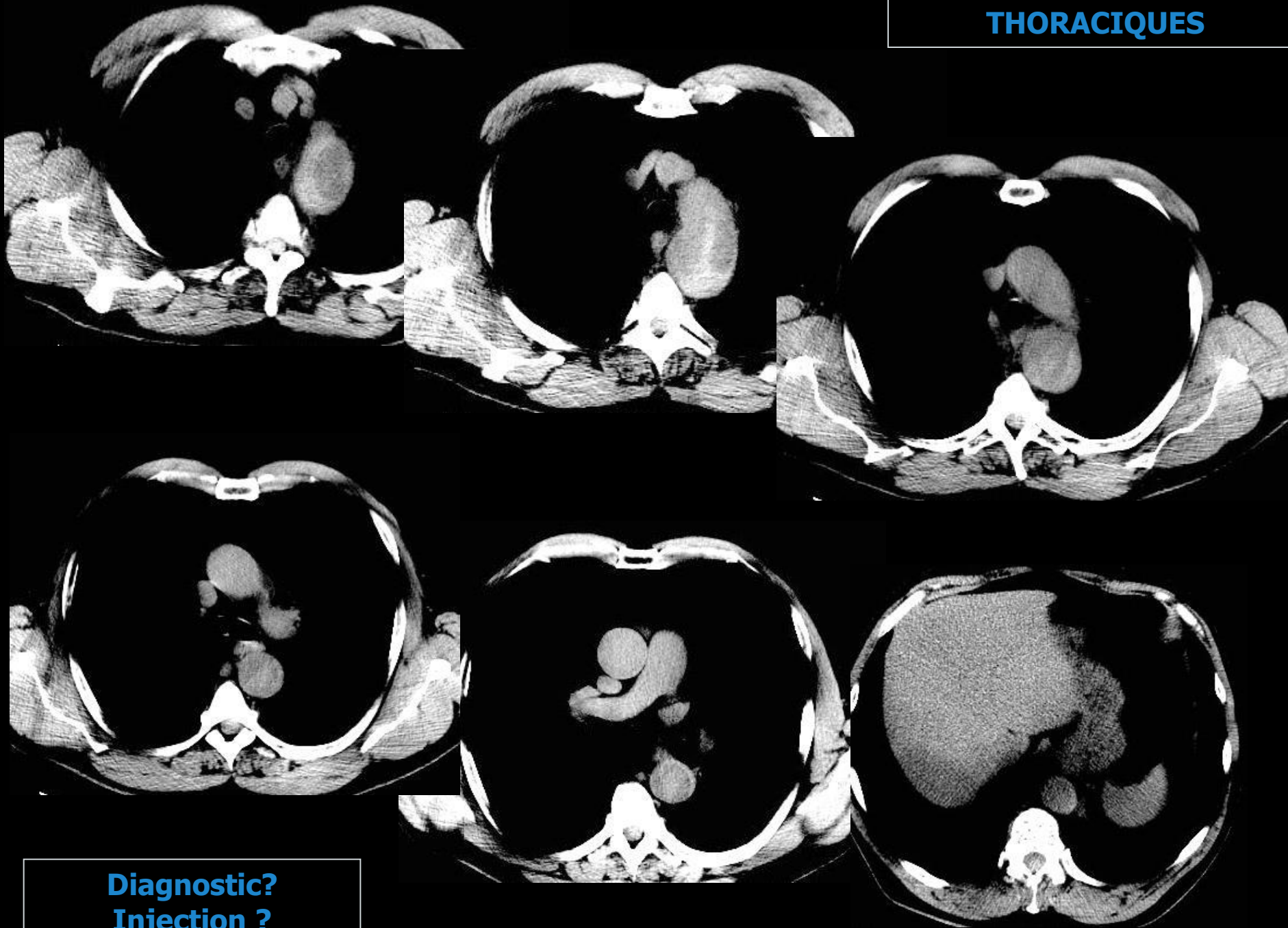
# Cas particulier hématome mural de l'aorte

Pas de brèche intimale ?????/Hématome dans la média (vasa vasorum)

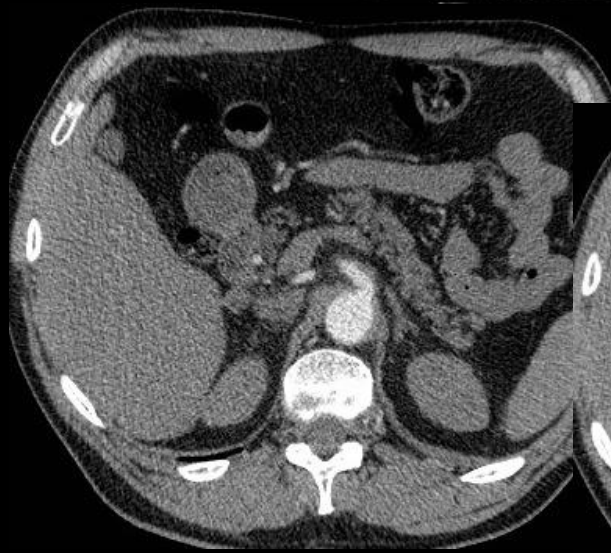
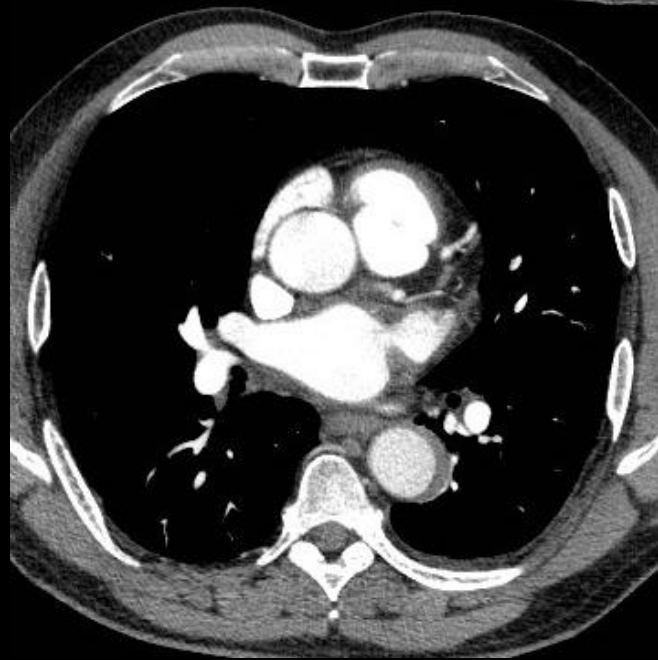
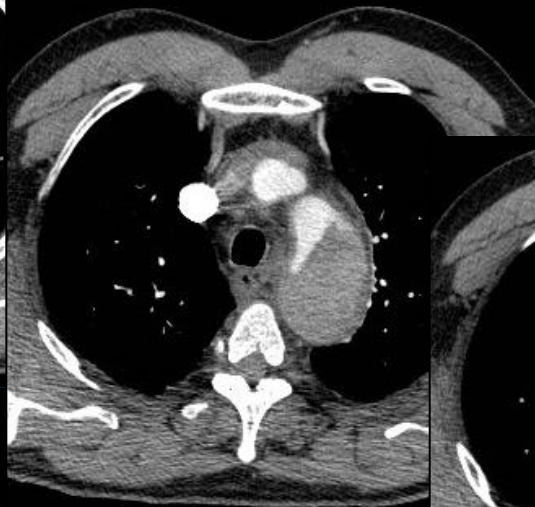
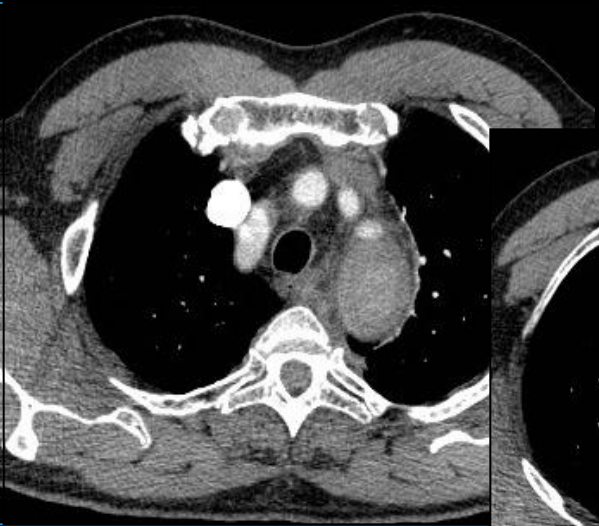


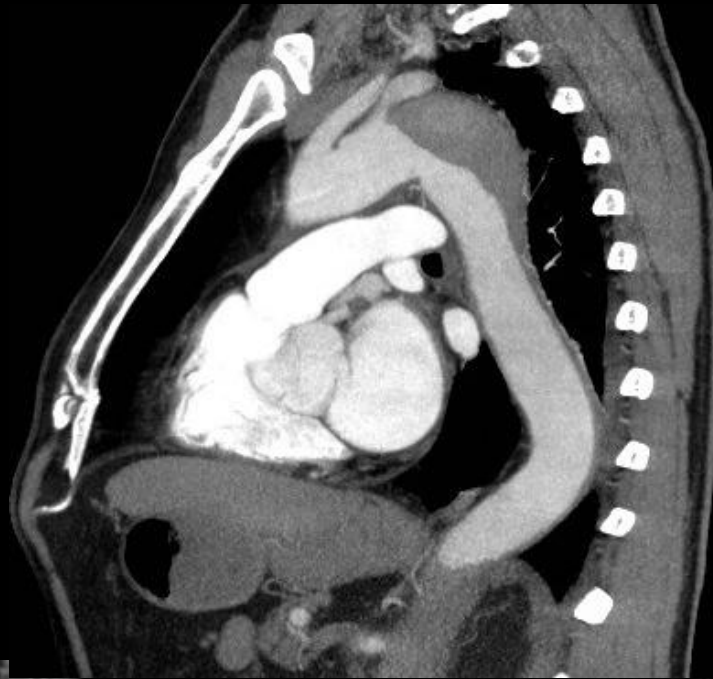
**hématome intra-mural de l'aorte sans injection**

# DOULEURS THORACIQUES



**Diagnostic?  
Injection ?**

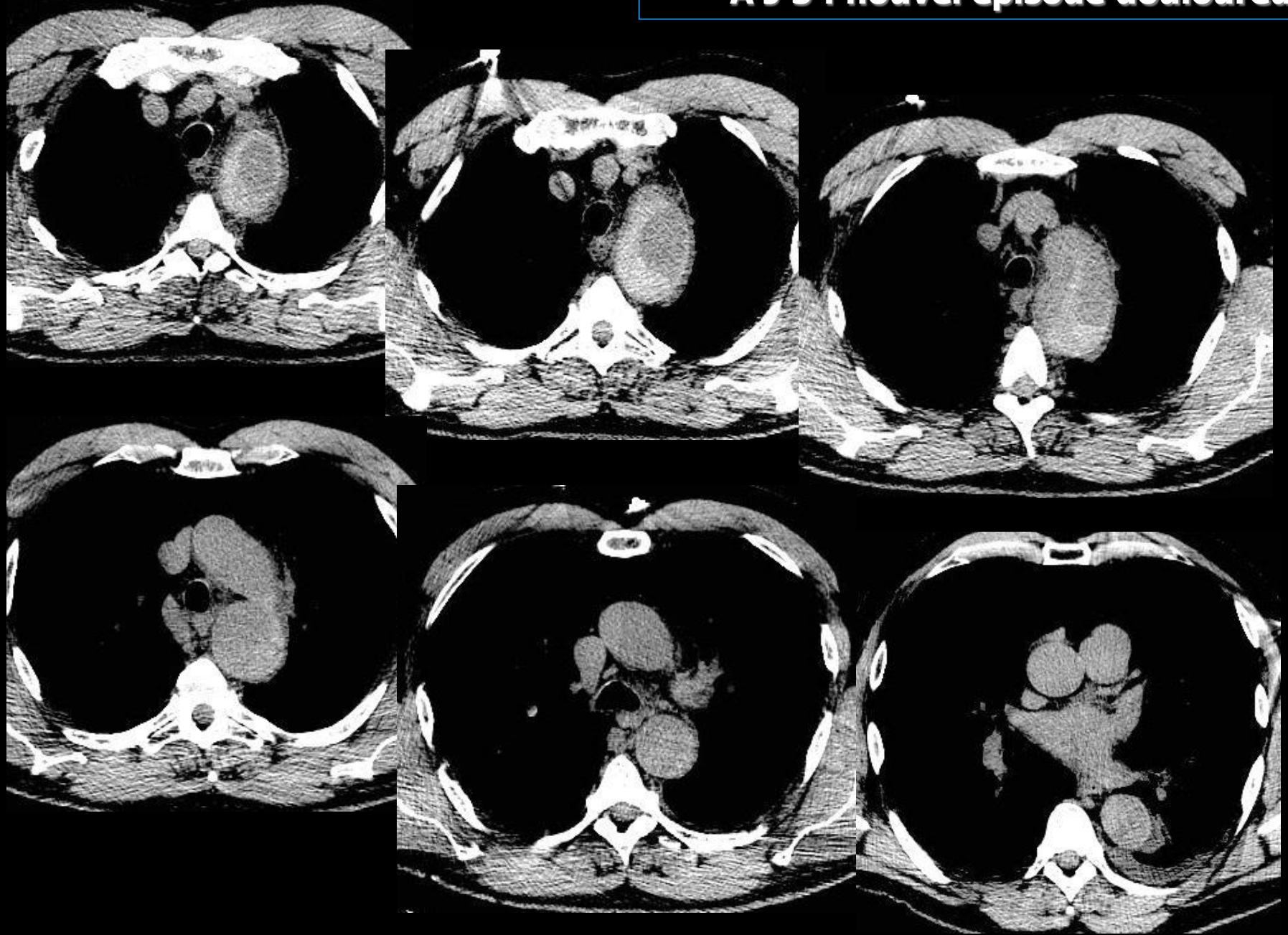


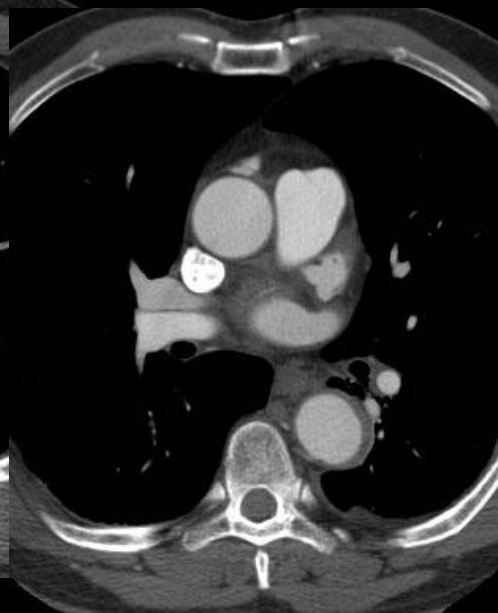
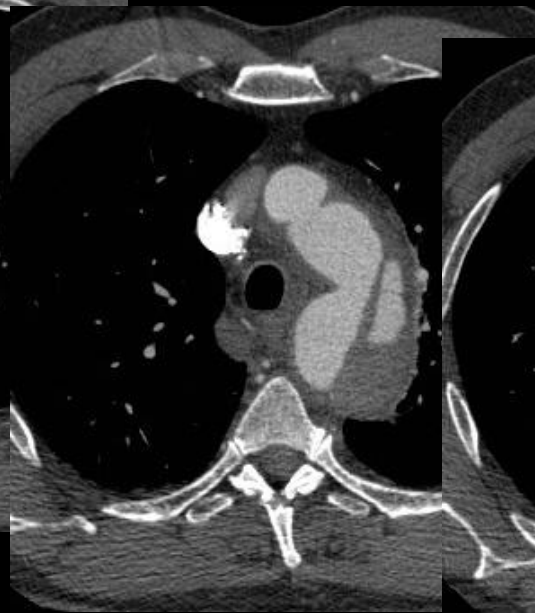
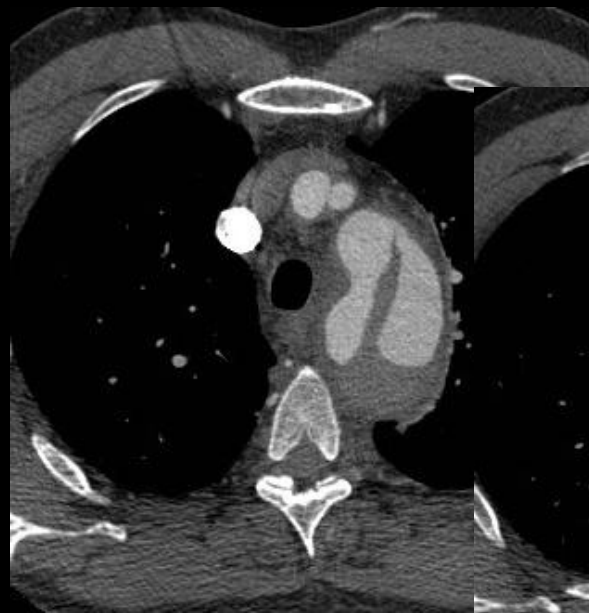
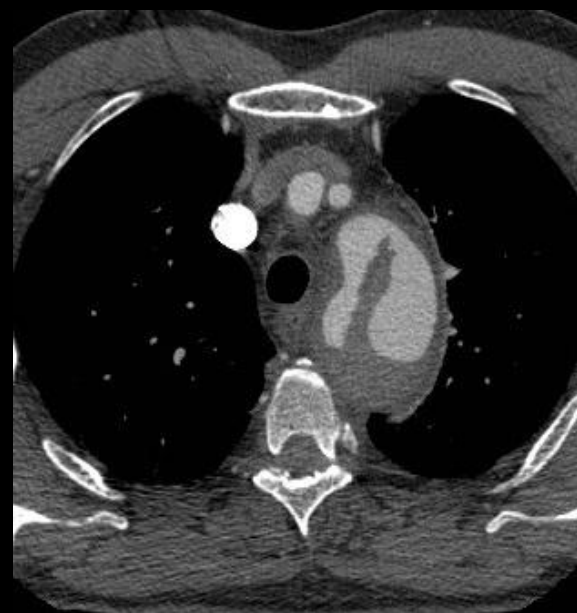
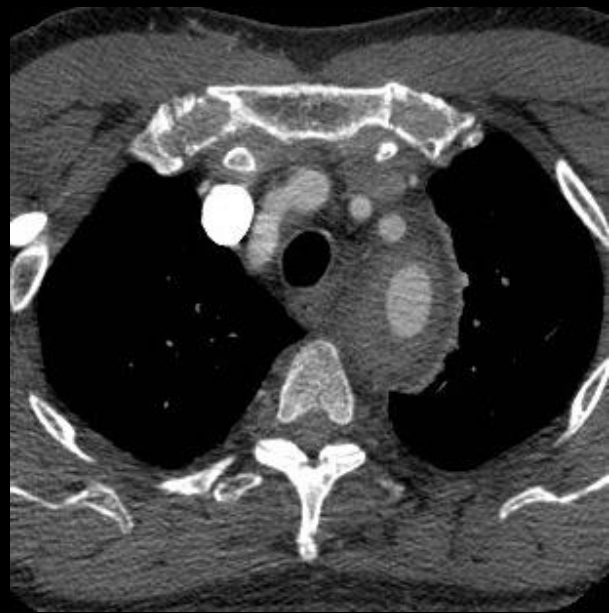


Type de dissection ?

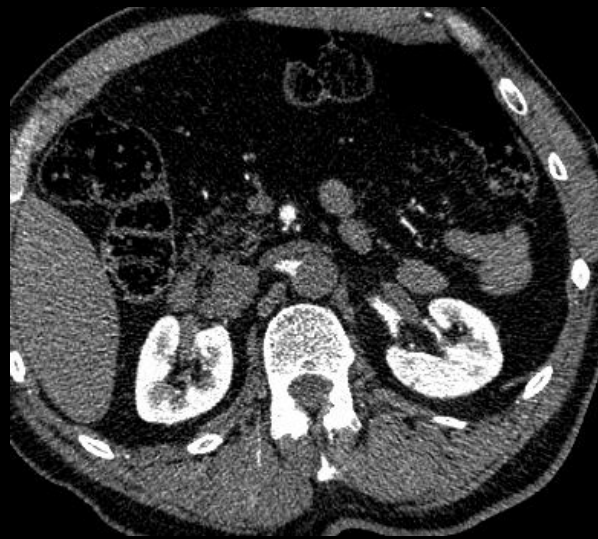
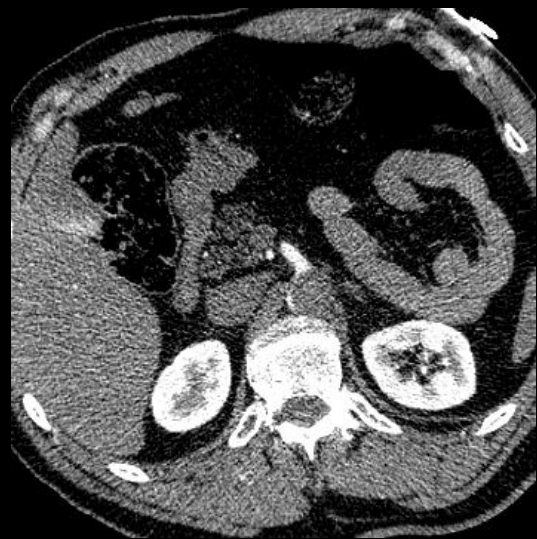
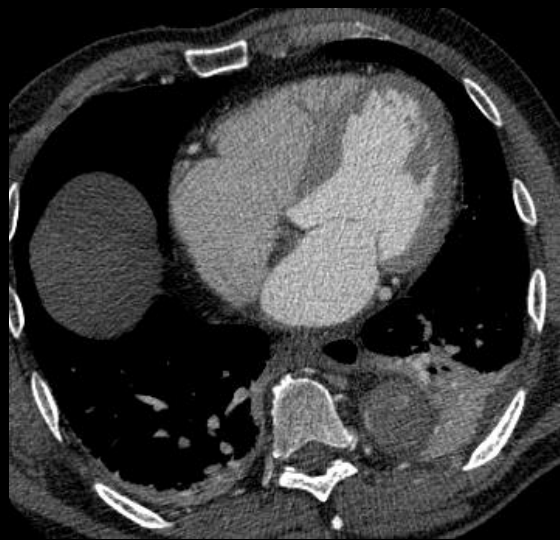


**A J 5 : nouvel épisode douloureux**





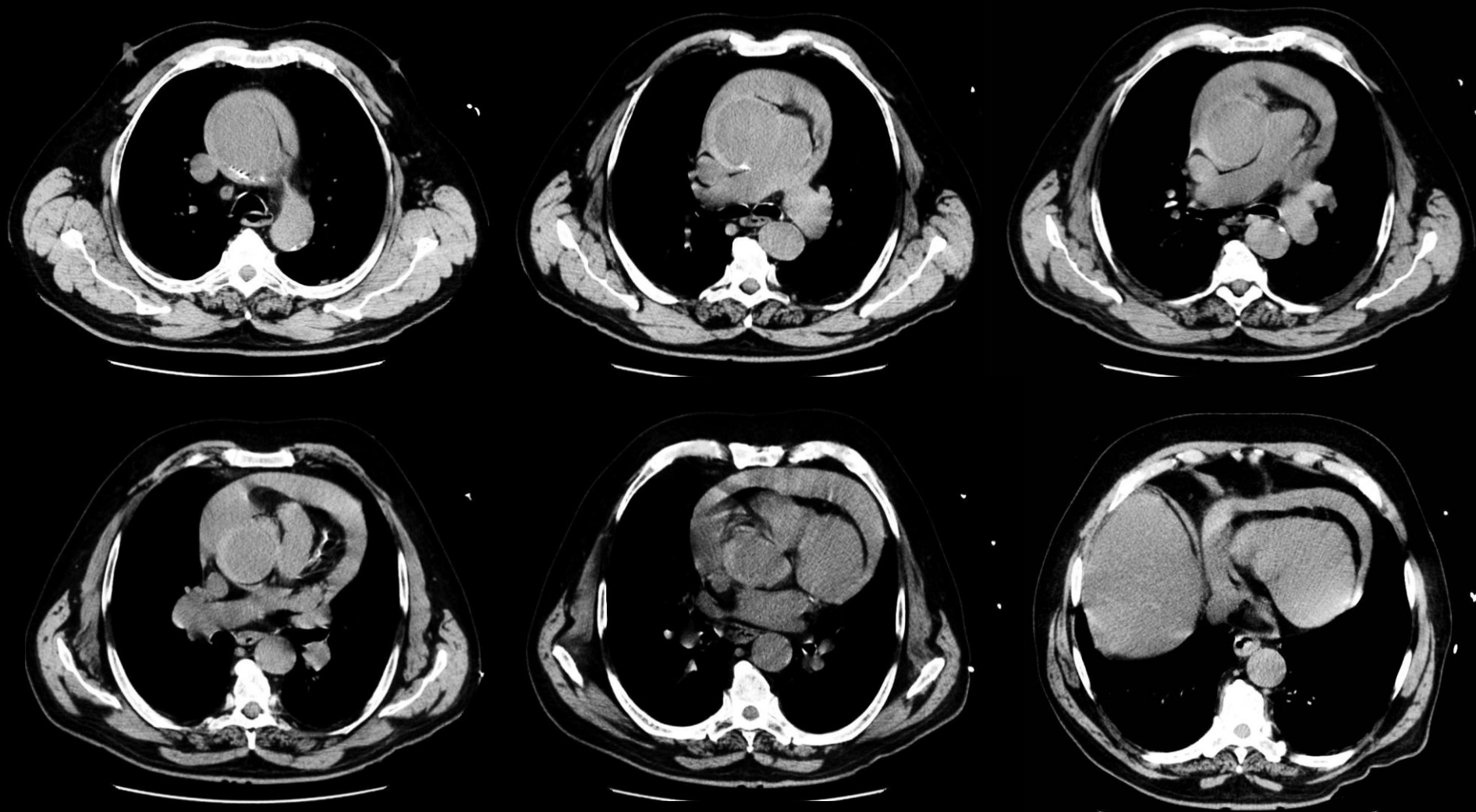




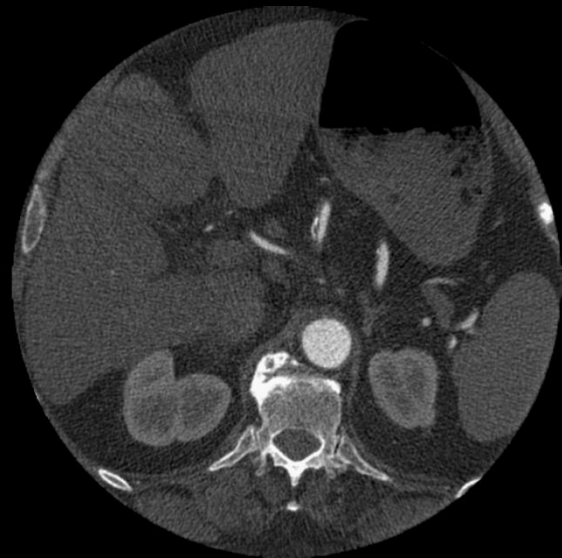
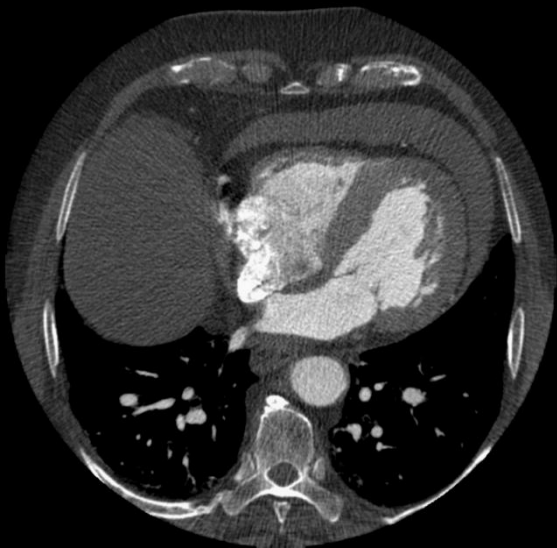
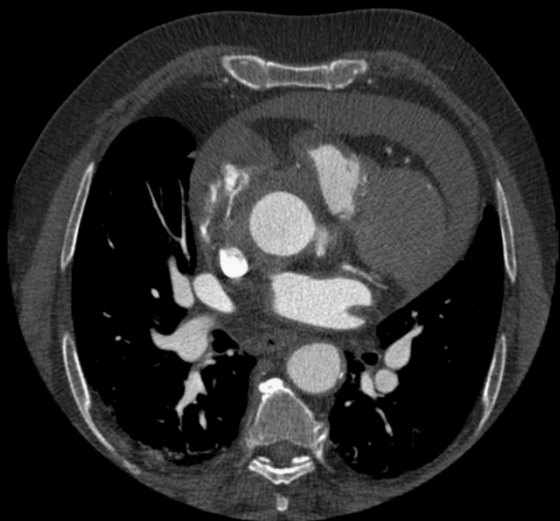
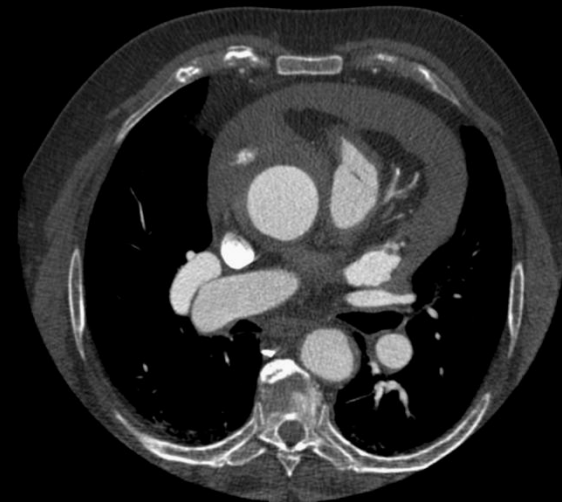
Hématomes aortiques intra-muraux :  
existe t'il une porte d'entrée ?

existe t'il une porte d'entrée ?

Hématomes aortiques intra-muraux :



Homme 65 ans.  
Asymétrie tensionnelle



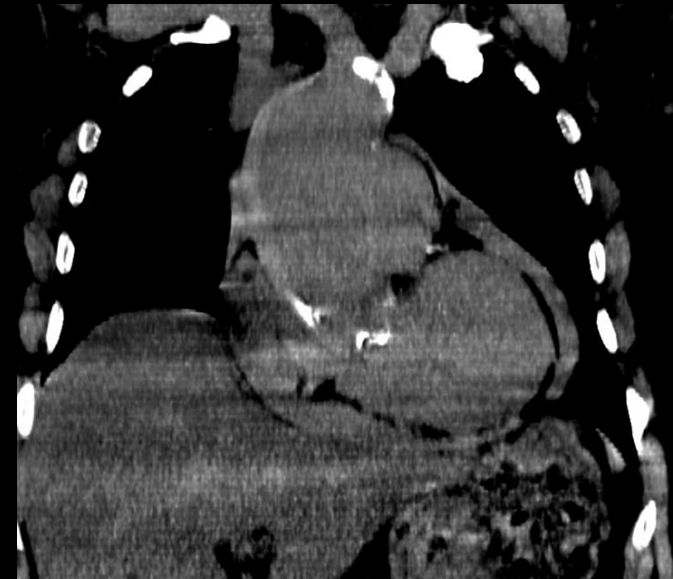
PAS DE PORTE D'ENTREE



n/rot



0mm/rot  
sp

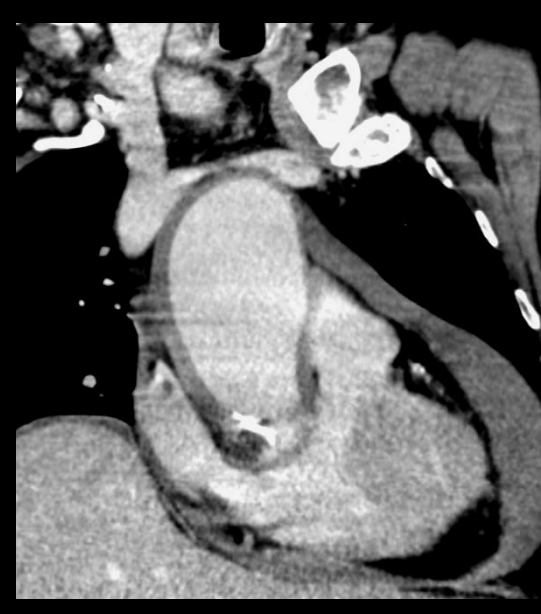


REFORMATION MULTI-PLANNAIRE

PAS DE PORTE D'ENTREE



n/rot

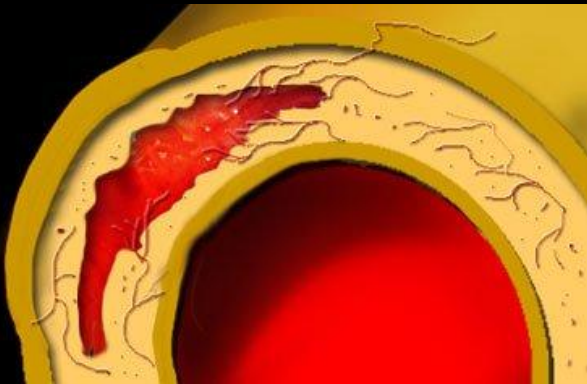




## Hématome intra-mural aortique

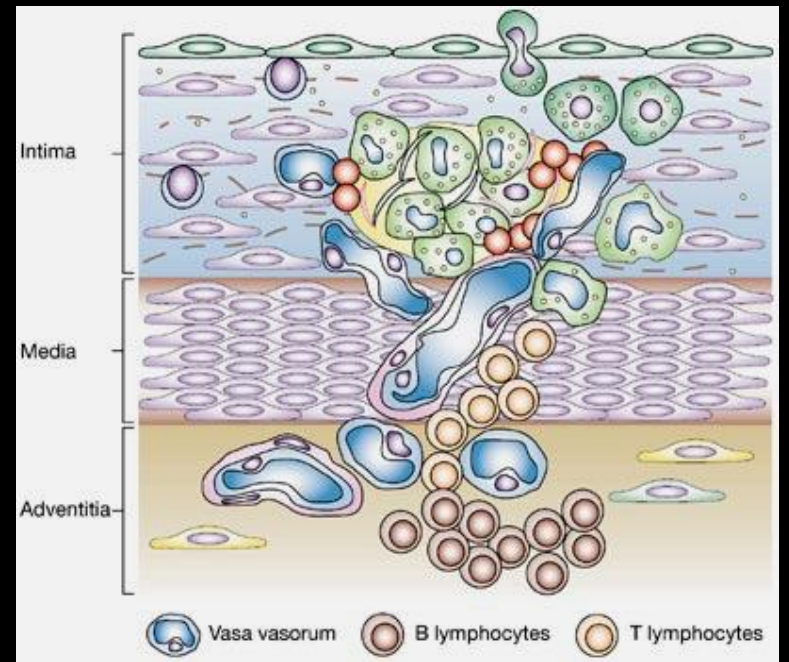
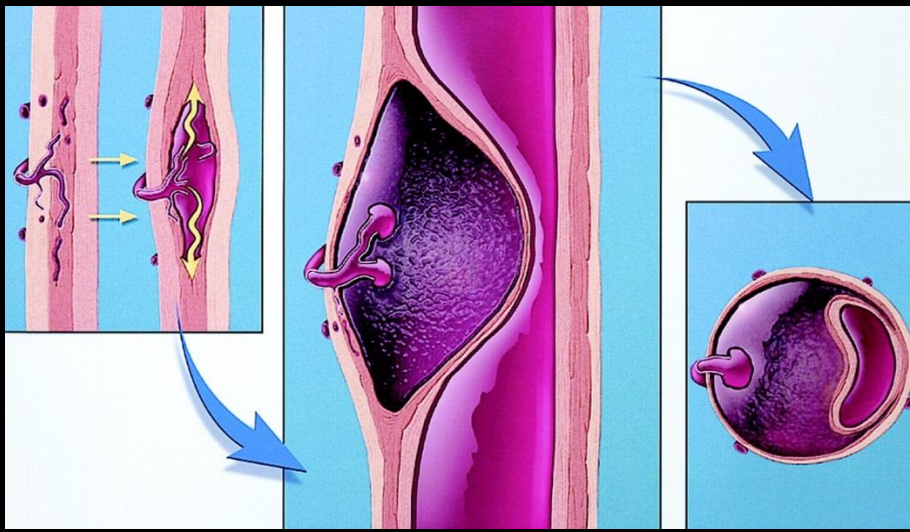
Hématome non circulant clivant la paroi aortique , survenu en l'absence de porte d'entrée

Ils représentent une variante de la dissection aortique classique



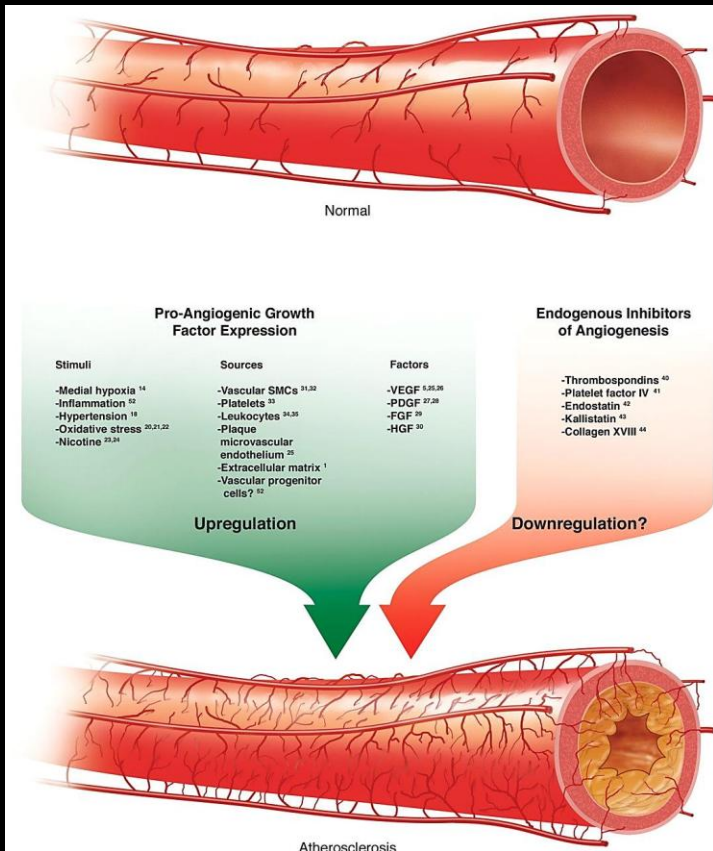
Prévalence **masculine**, moyenne d'âge : **65 ans**

**L'HTA** est le seul facteur de risque clairement identifié et retrouvé dans 50 % des cas



# PHYSIOPATHOLOGIE

Hématomes liés à **une rupture des vasa-vasorum** (vaisseaux des vaisseaux). Le processus de clivage siègerait contrairement aux dissections aortiques standard dans une couche plus externe.





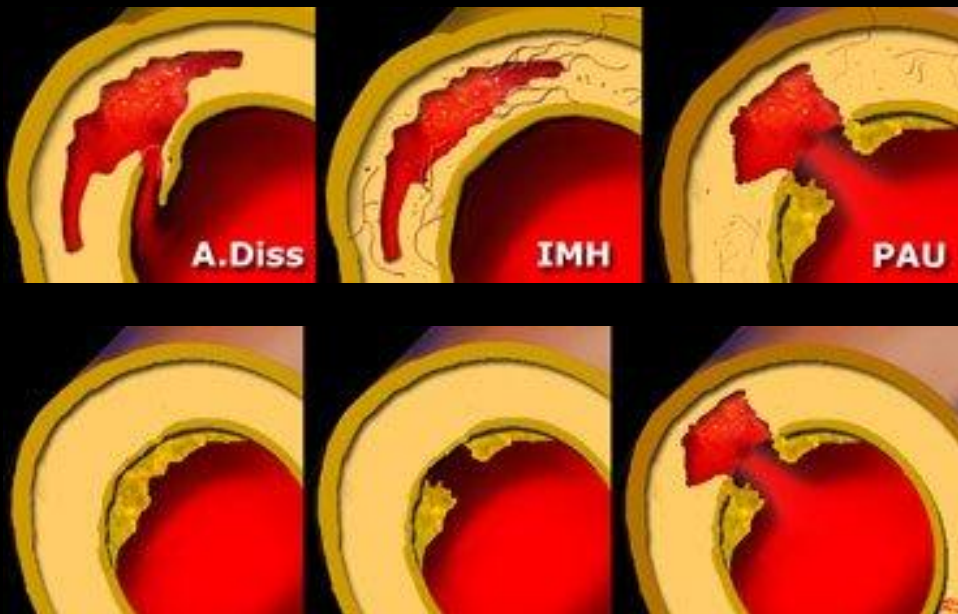
## Hématome intra-mural aortique

SIGNES RADIOLOGIQUE :

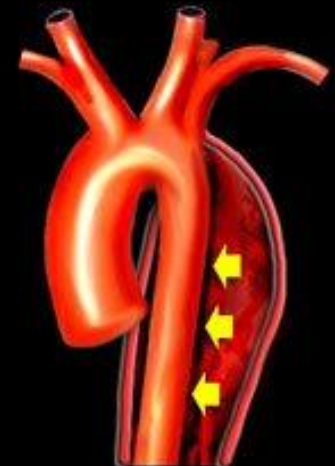


Épaississement en croissant de lune spontanément dense d'une épaisseur supérieure à 7 mm

TOUJOURS REALISER DES ACQUISITIONS SANS INJECTION DEVANT TOUTE SUSPICION DE DISSECTION AORTIQUE !!!!!!!!!!!



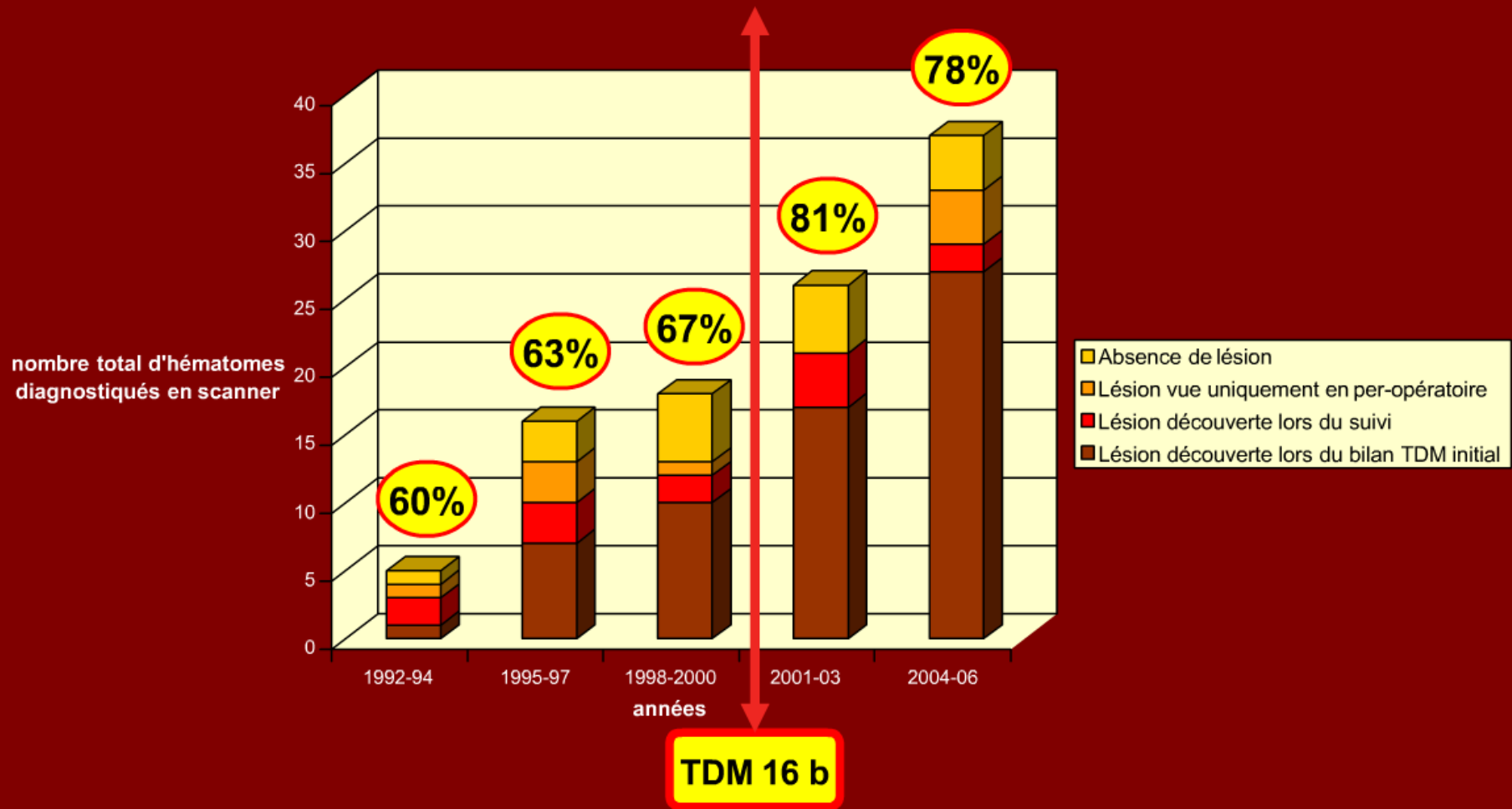
Stanford A



Stanford B

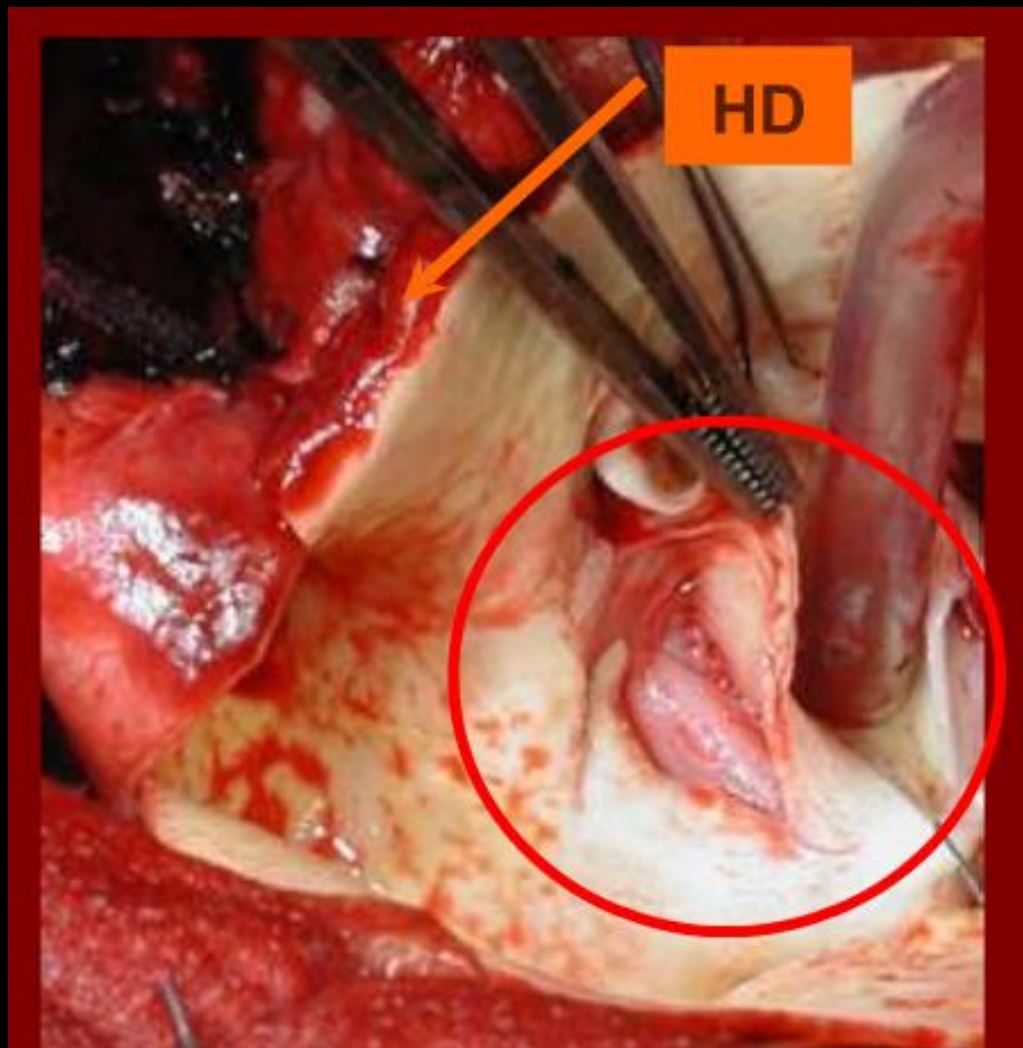
- ❖ Les premiers à remettre en cause la physiopathologie même de l'HD telle qu'elle était historiquement établie furent les chirurgiens : les données per-opératoires montrent l'existence de ruptures intimo-médiales à l'origine de l'hématome, avec extension antérograde ou rétrograde du clivage (*Cambria, Journal of Vascular Surgery, juin 2002*).
- ❖ Les progrès de l'imagerie ont par la suite permis la détection de telles lésions. Yoshida fut le premier radiologue à employer le terme de « porte d'entrée » dans sa description de l'HD (*Yoshida et al, Radiology, août 2003*).

## Diagnostic des lésions intimes en scanner au cours du temps



L'amélioration du taux de détection est corrélé essentiellement à l'amélioration de la qualité des scanners.

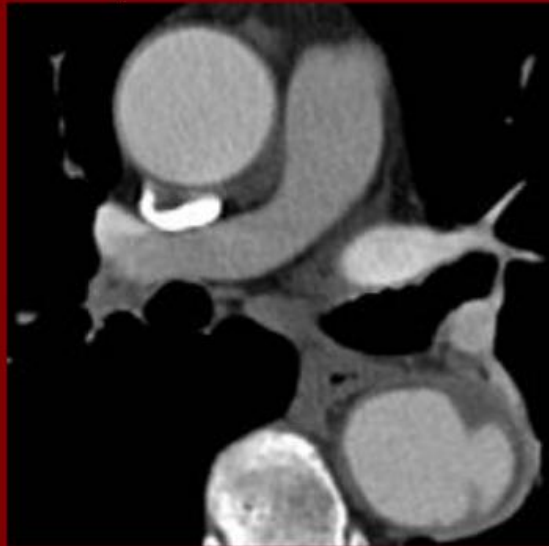
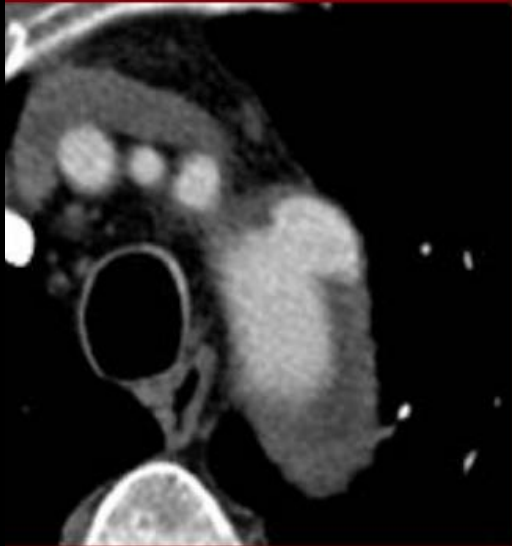
Le pic observé après 2001 correspond à l'introduction dans notre service d'un scanner 16 barrettes.



## Scène 2 : Aspects des lésions

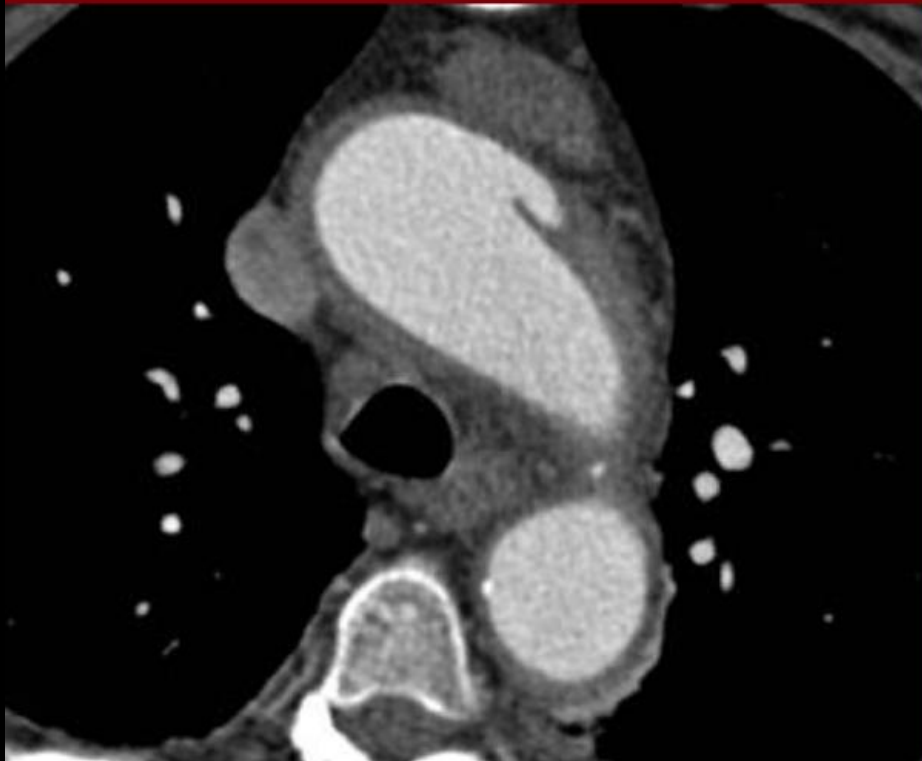
### ❖ Ulcère :

- Correspond à une image d'addition de forme ronde à collet large, située dans la paroi aortique
- Il s'agit du type de lésion le plus fréquemment observé (n=41 soit 47% des lésions)



## ❖ Fente intimo-mediale :

- Correspond à une image spiculaire ou arrondie, visible sur plusieurs niveaux de coupes successifs, lui conférant un aspect grossièrement linéaire sur les reformations.
- n=20 soit 23% des lésions

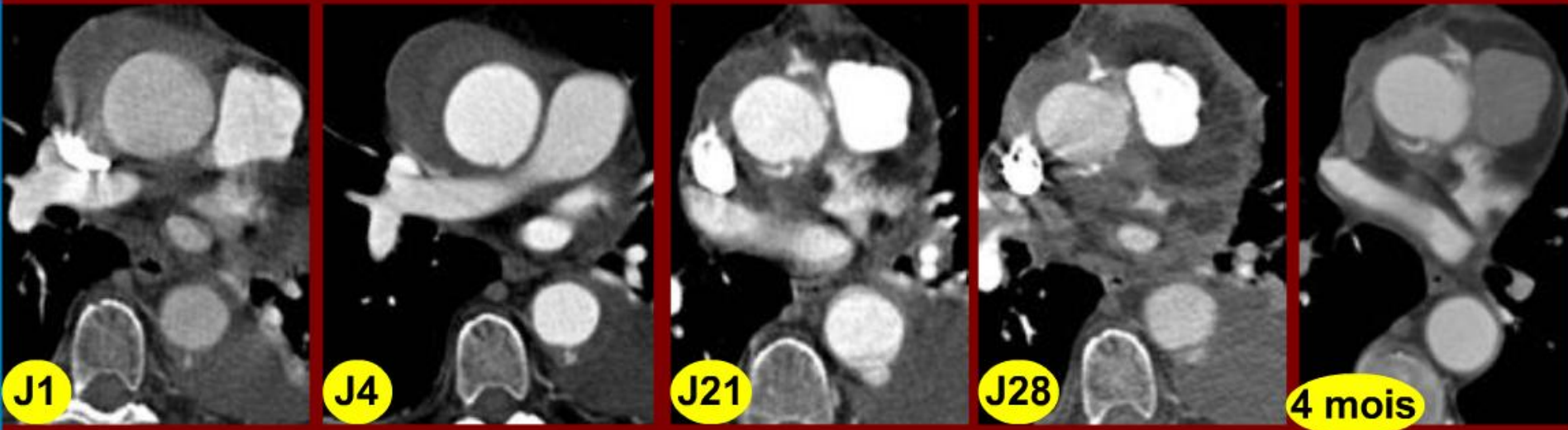




## ❖ Arrachement d'ostium :

- A l'inverse des 3 premiers, ce dernier type de lésion n'est pas considéré comme une éventuelle porte d'entrée de l'hématome mais plutôt comme une conséquence de celui-ci.
- Correspond à une image d'addition punctiforme, ronde, située entre la lumière aortique circulante et la collatérale étirée (le plus souvent une artère intercostale).
- Du fait de son évolution souvent rapide dans le temps, cette lésion est parfois diagnostiquée à un stade plus évolué, sous forme d'un image ulcériforme, voire d'une dissection localisée.

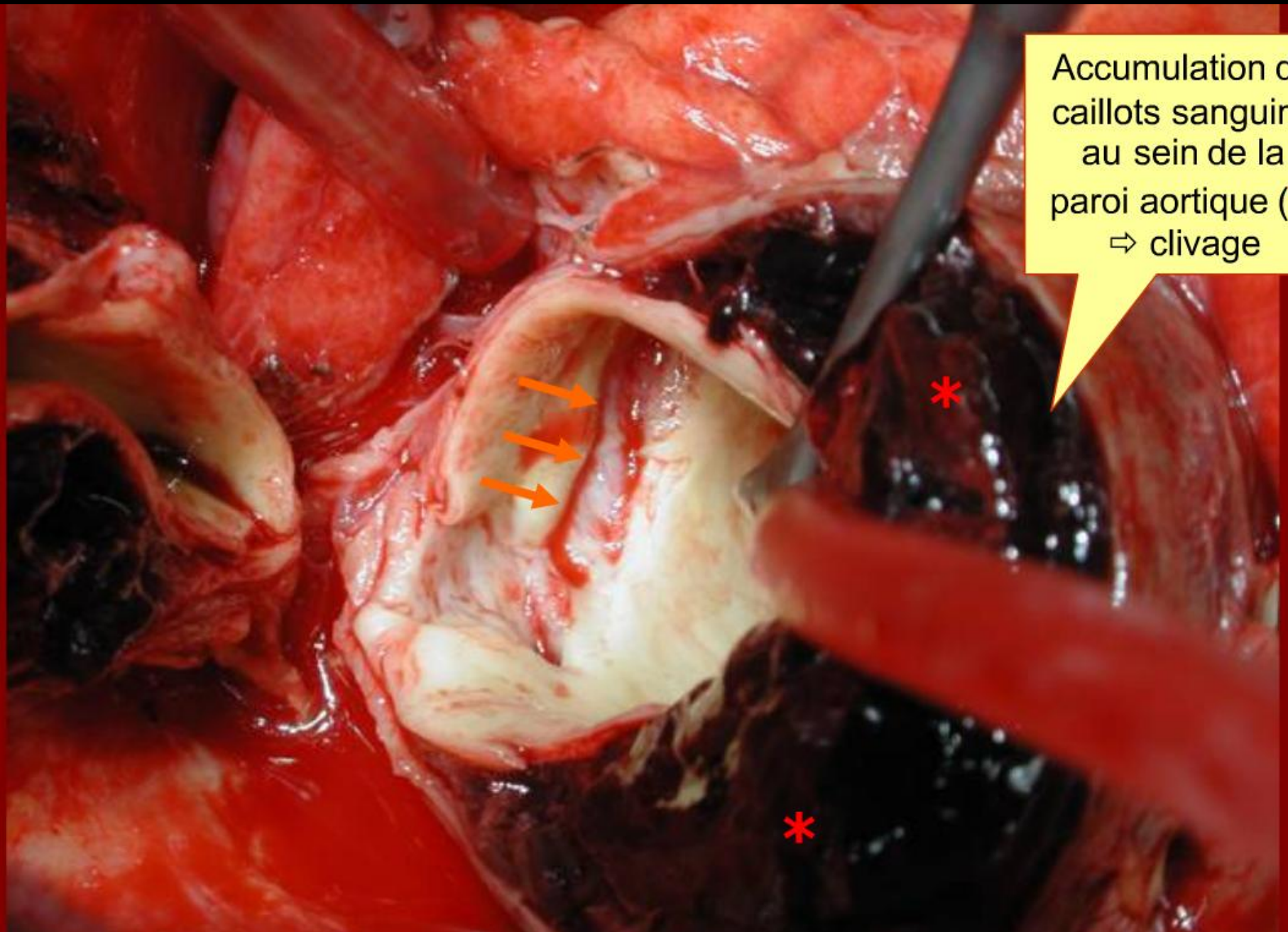
❖ L'évolution est spontanément favorable dans la plupart des cas : 65% (n=15/23) des lésions se sont thrombosées lors du suivi.





**HD de type A opéré en urgence**

Accumulation de  
caillots sanguins  
au sein de la  
paroi aortique (\*)  
⇒ clivage



## Qu'en est il dans le service ... ?

Recherche sur le base de données du PACS => mots clefs :  
=> *Hématome intra-mural*  
=> *Hématome disséquant*

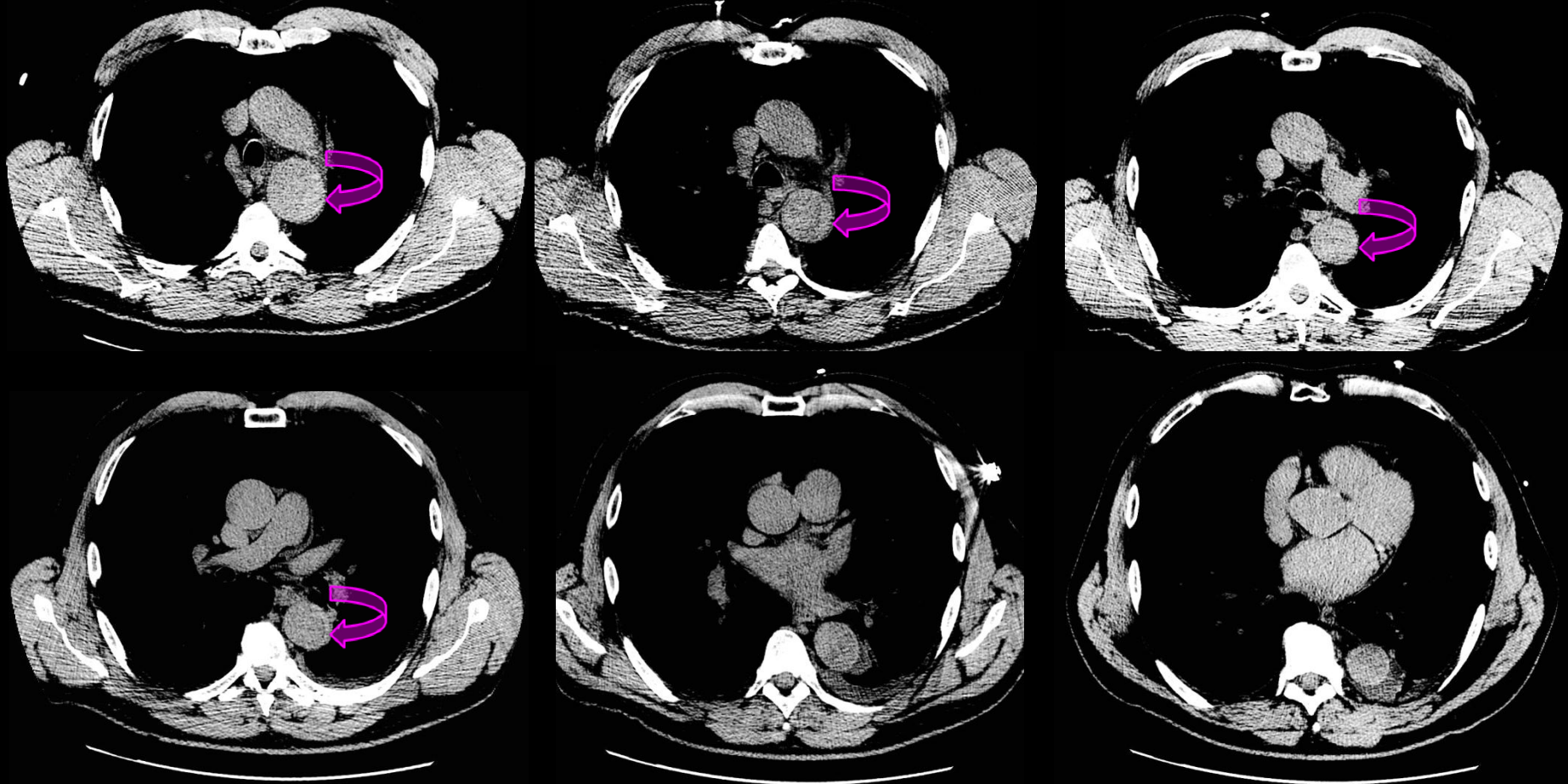
Au total : 35 dossiers trouvés de 2003 à 2010

18 / 35 correspondent à de vrai hématomes intra-muraux  
Le reste : hématoxime + dissection ou dissection simple

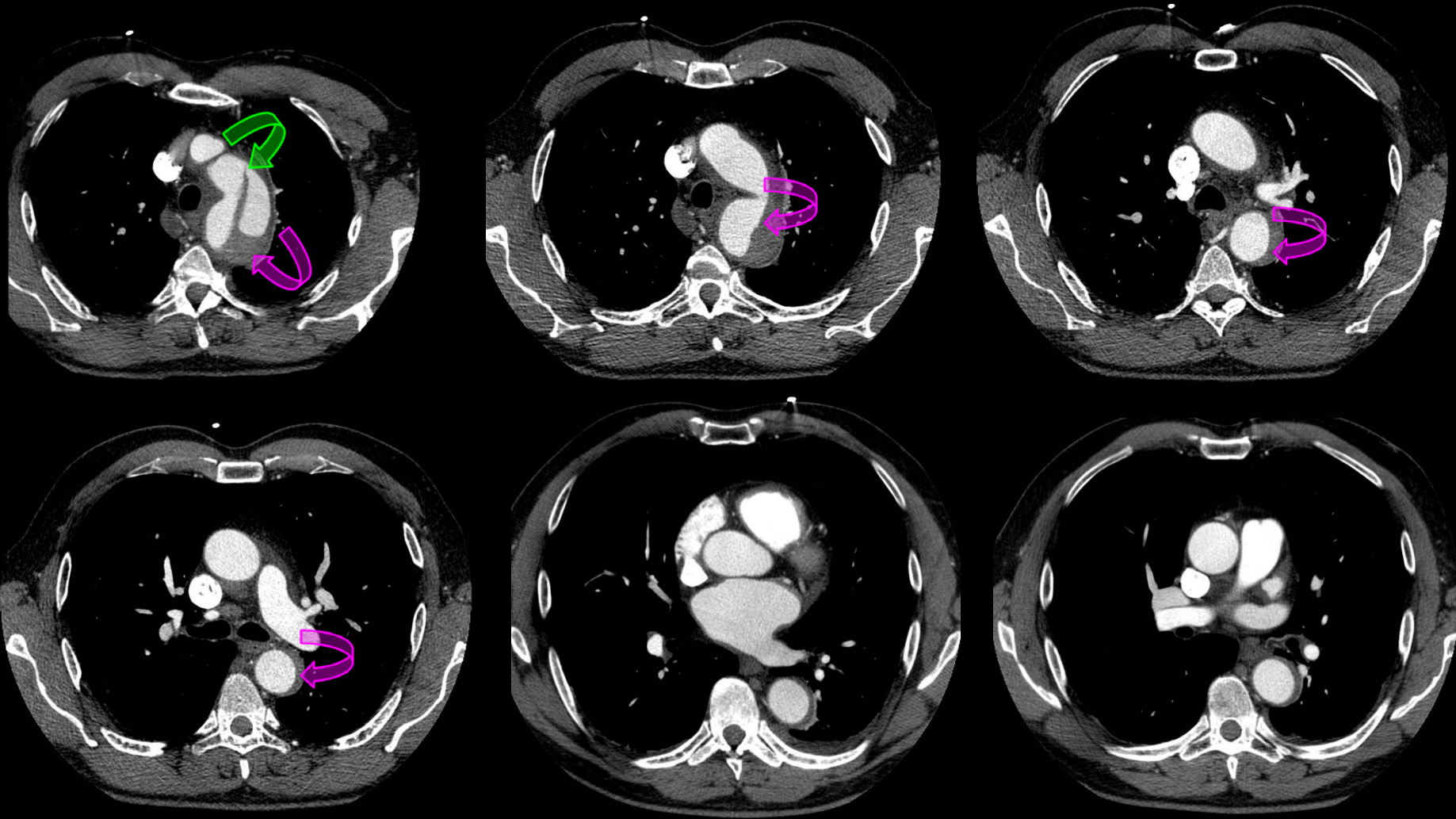
Etude rétrospective sur les 18 dossiers

Post traitement MIP et VR fait sur AW  
pour chaque patient

Comparatif direct avec ce qui été dit dans  
les comptes rendus

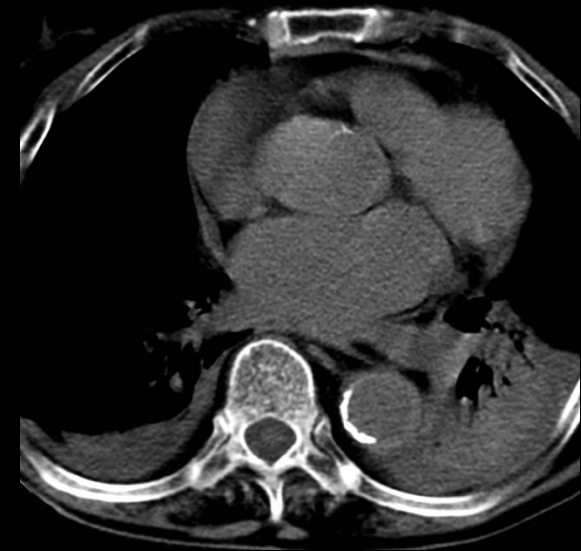
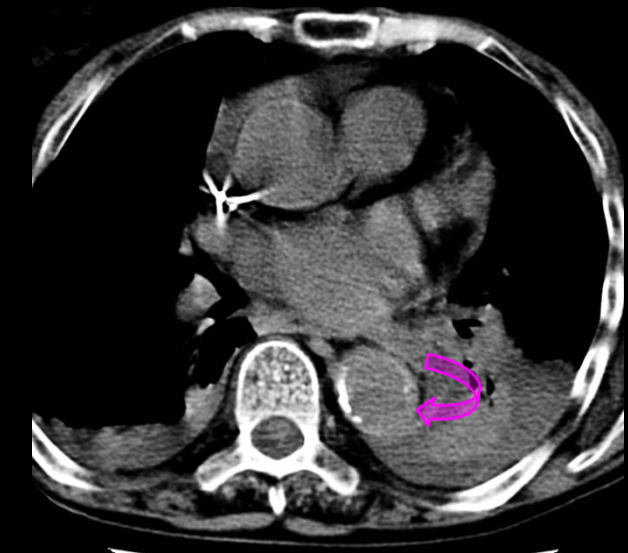
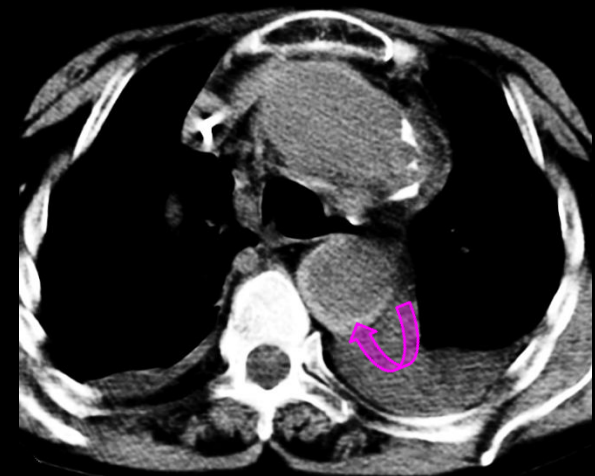
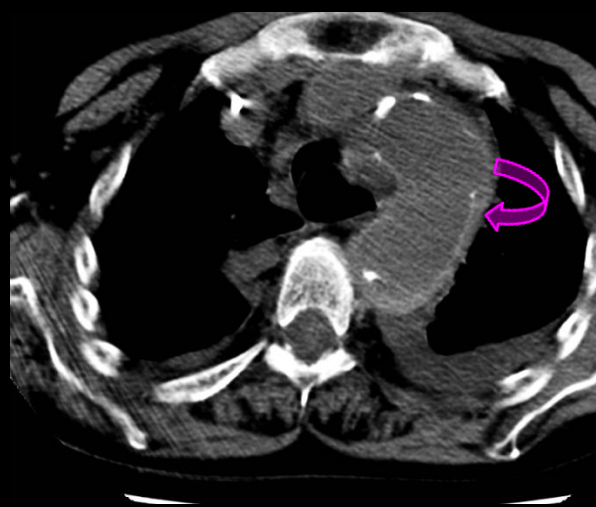
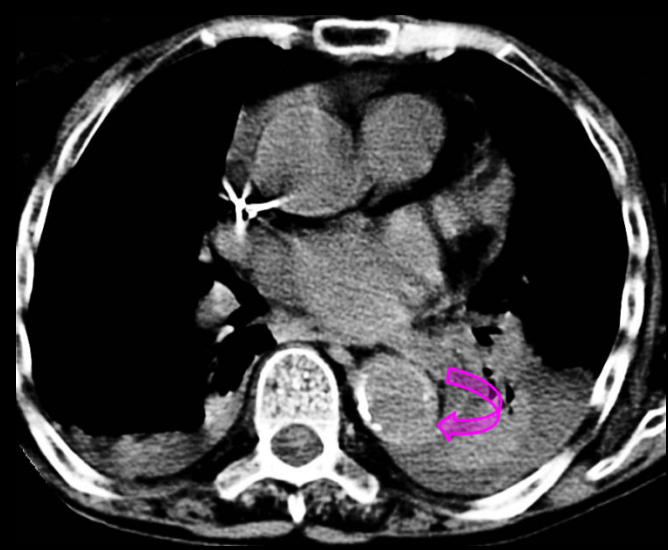


Cas n°1 : 2005



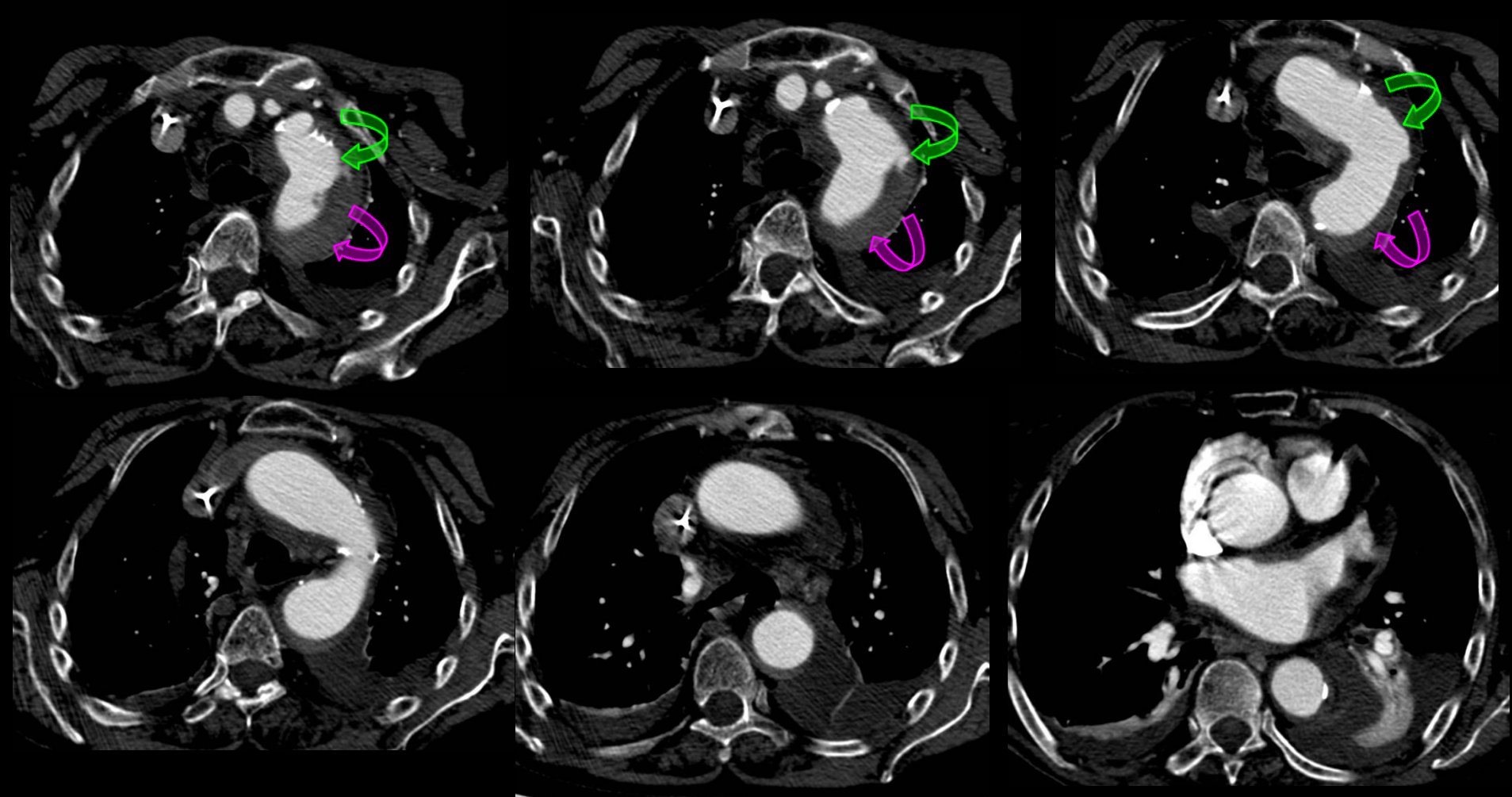
- Vue
- Décrite comme porte d'entrée
- Noté dans la conclusion

Cas n°1 : 2005

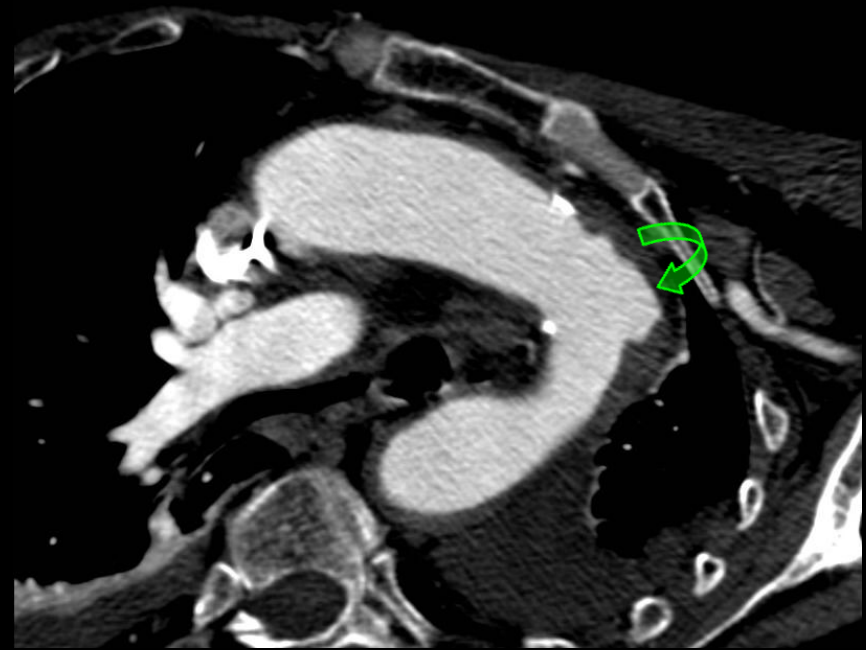
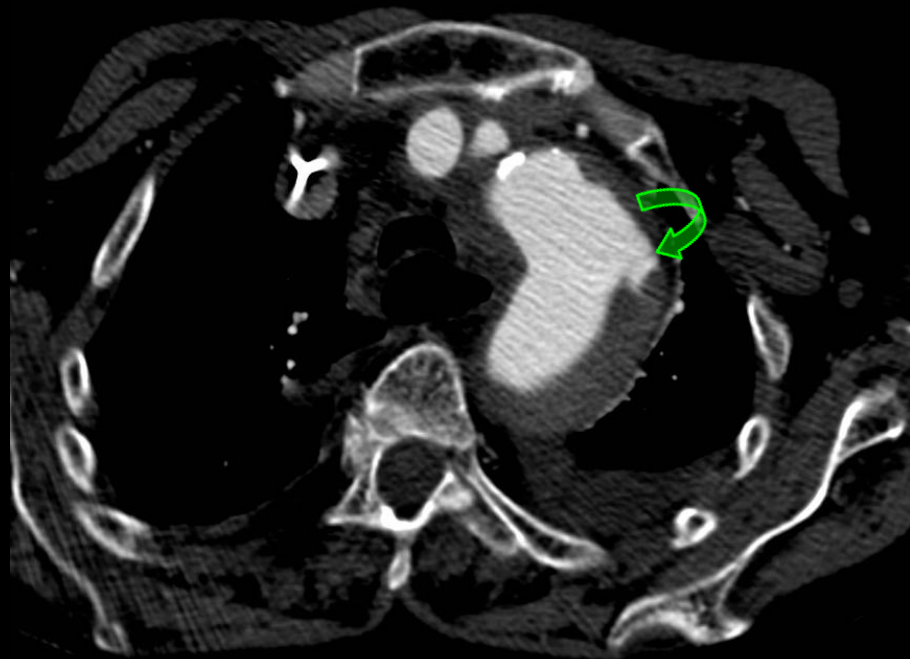


Cas n°2: 2005





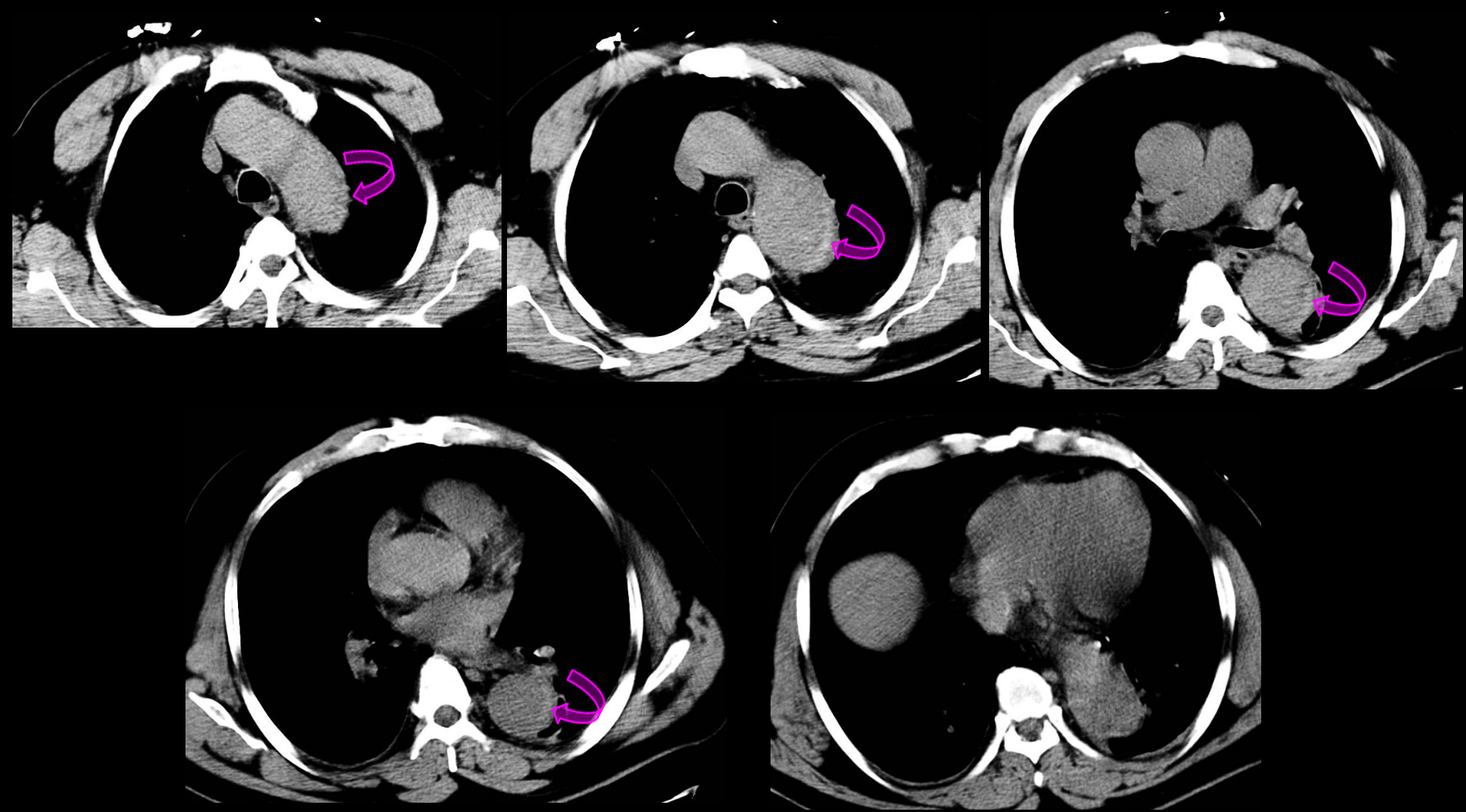
Cas n°2: 2005



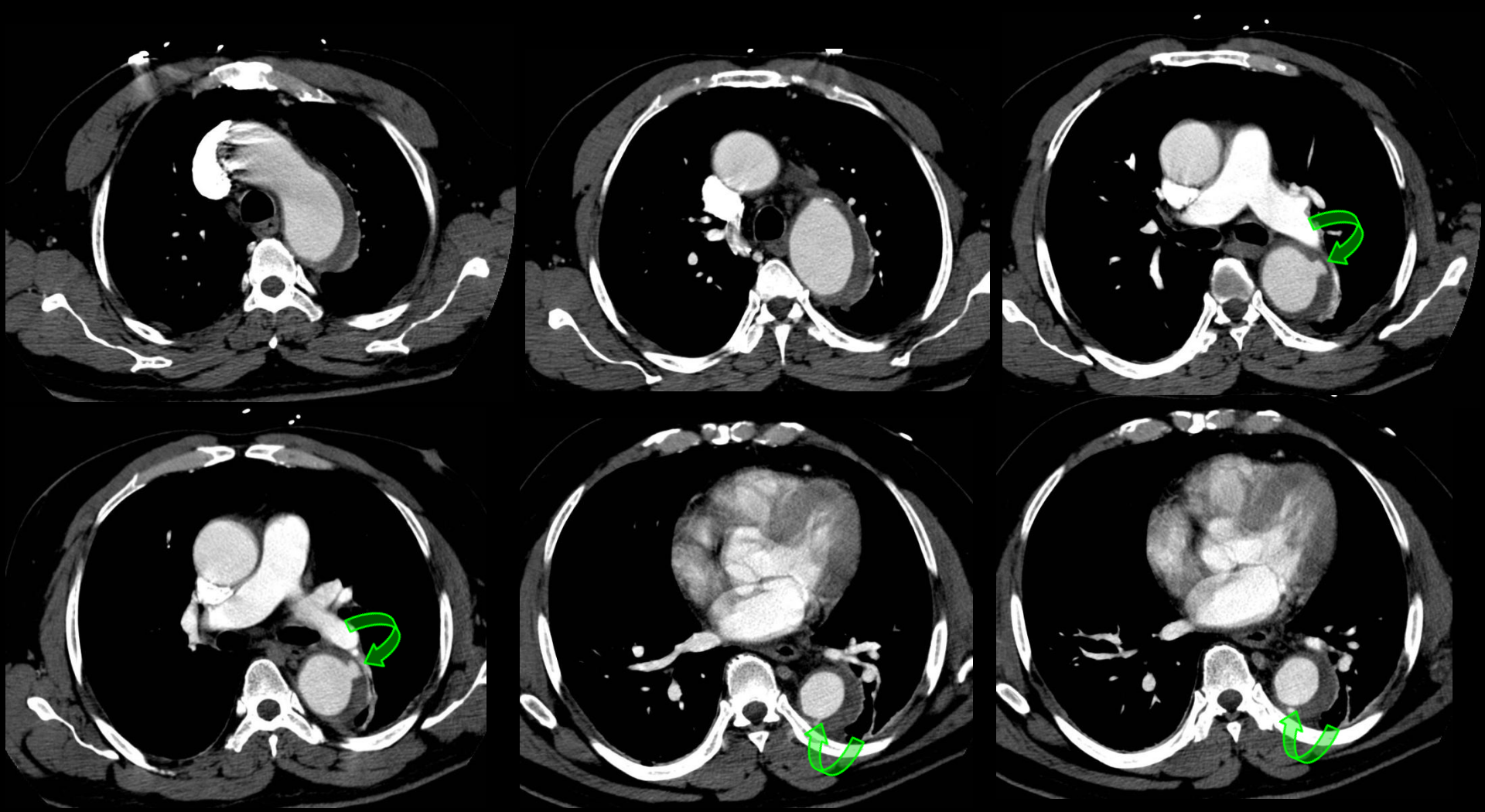
- Vue
- Décrite comme ulcère athéromateux
- Noté dans la conclusion

- Noté dans la conclusion
- Décrite comme ulcère athéromateux

Cas n°2: 2005



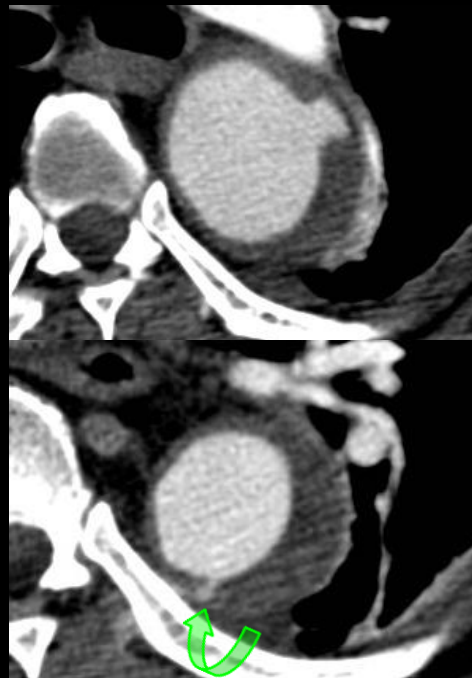
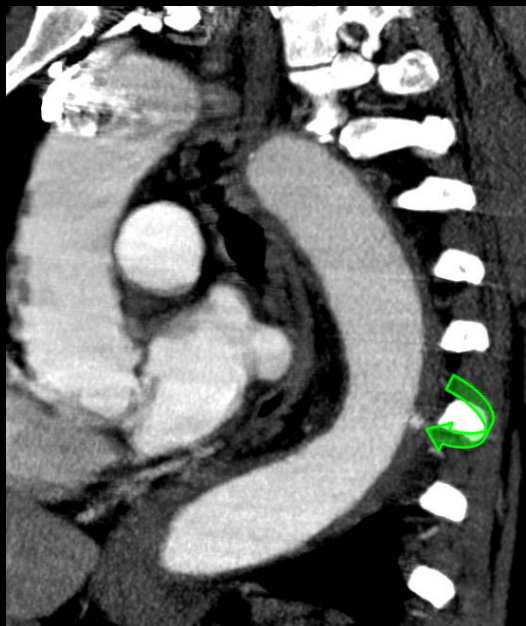
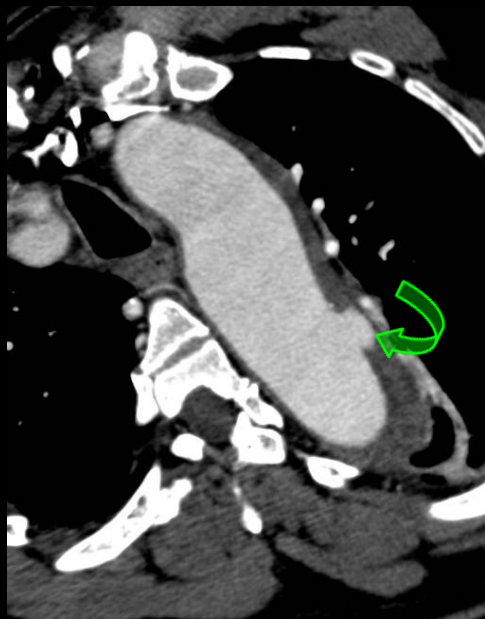
Cas n°3: 2003



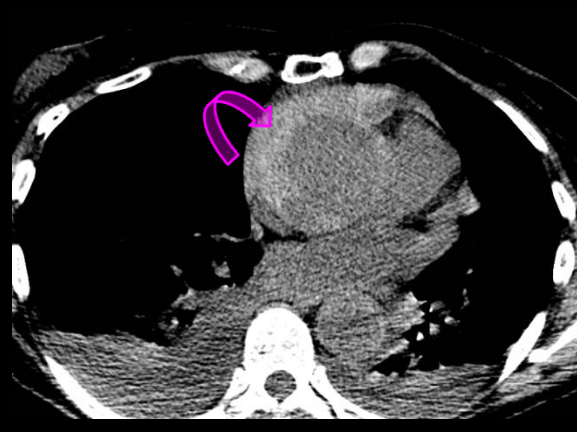
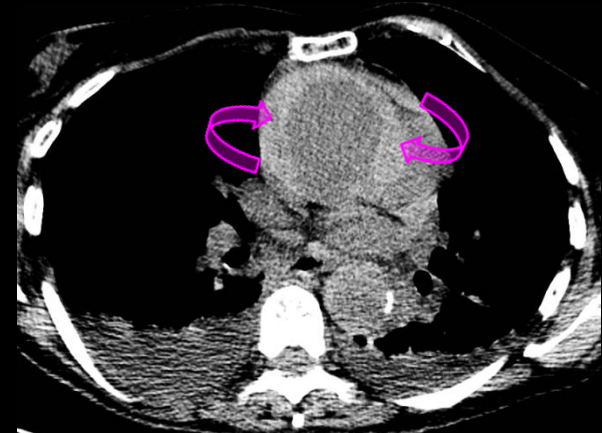
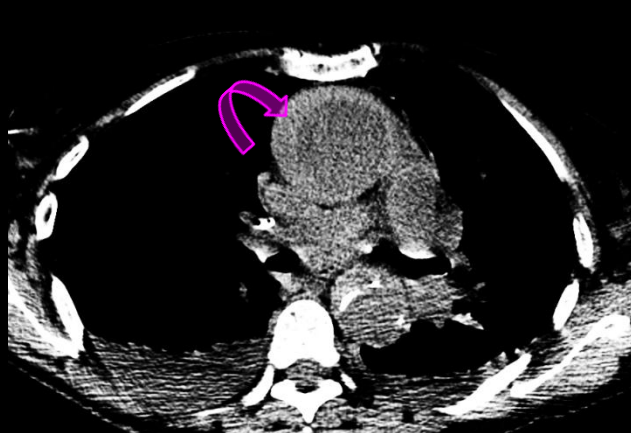
- Vue
- Décrite comme ulcère
- Pas noté dans la conclusion

- Pas noté dans la conclusion
- Décrite comme ulcère

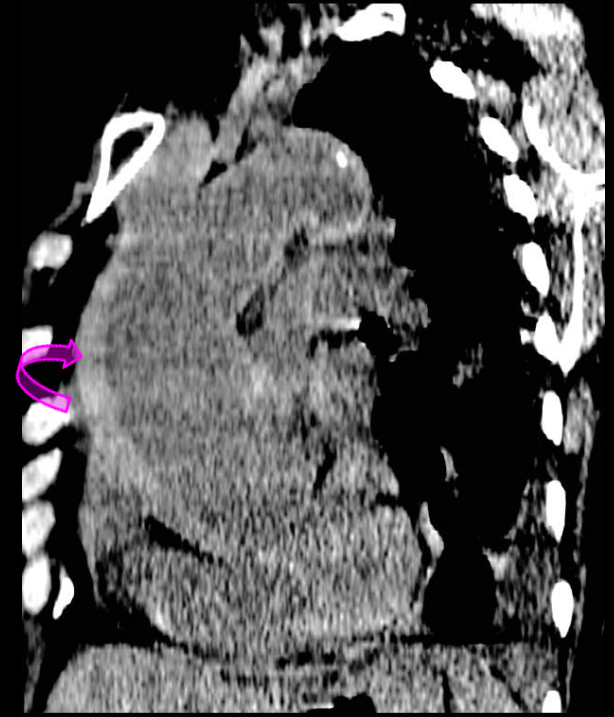
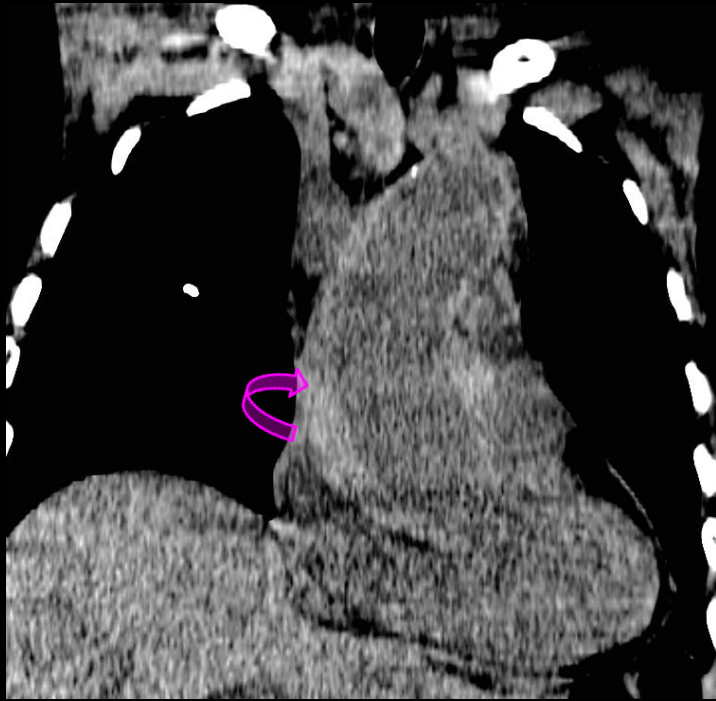
Cas n°3: 2003



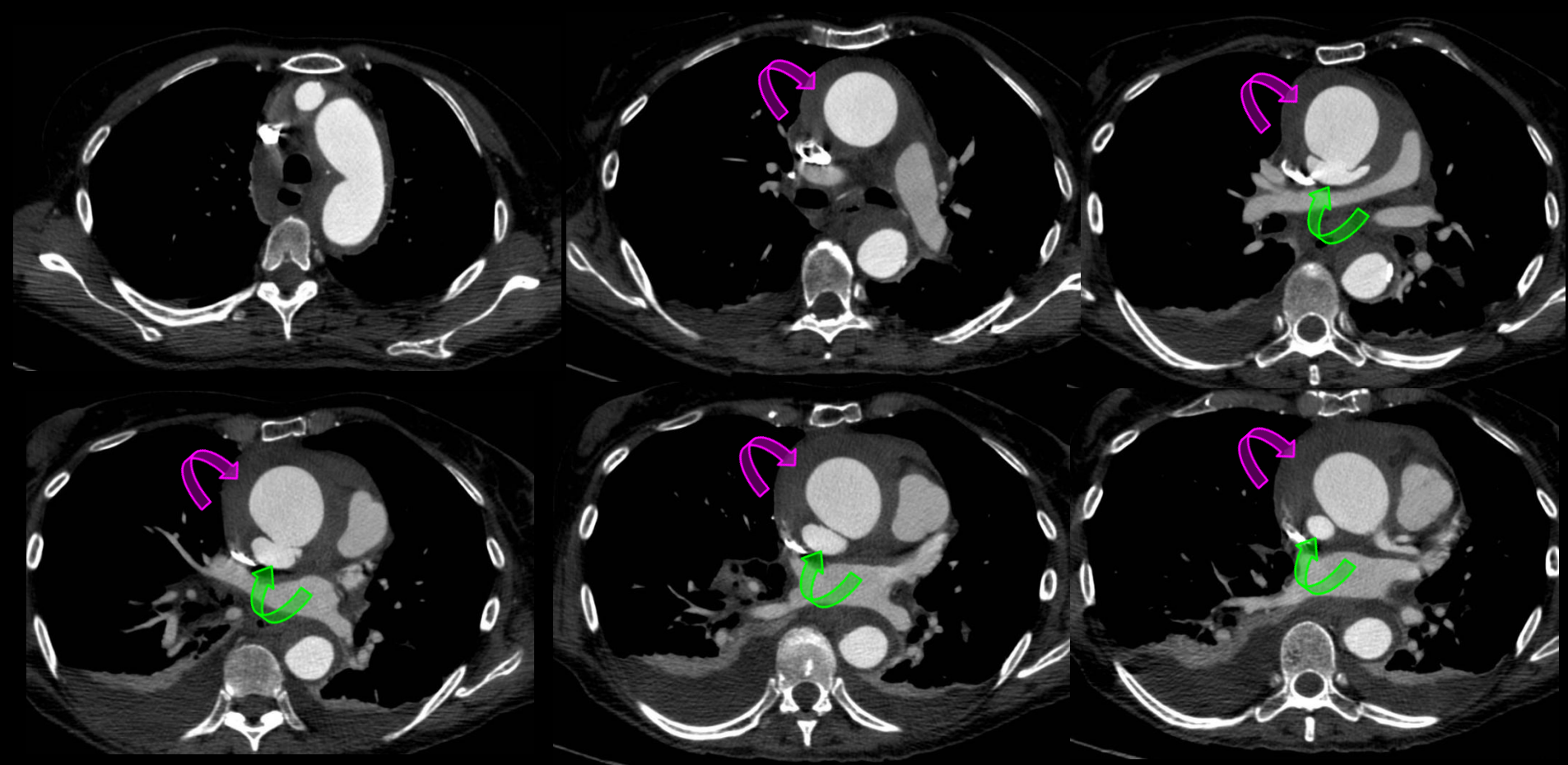
Cas n°3: 2003



Cas n°4: 2009



Cas n°4: 2009

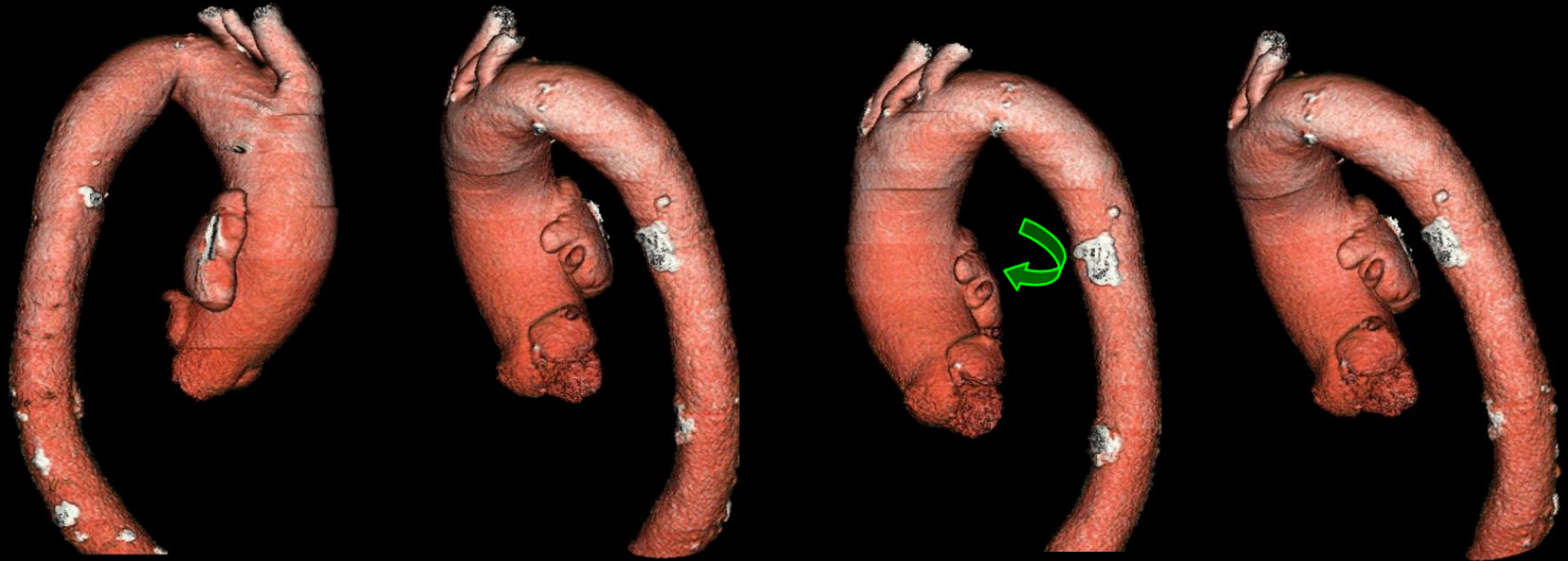
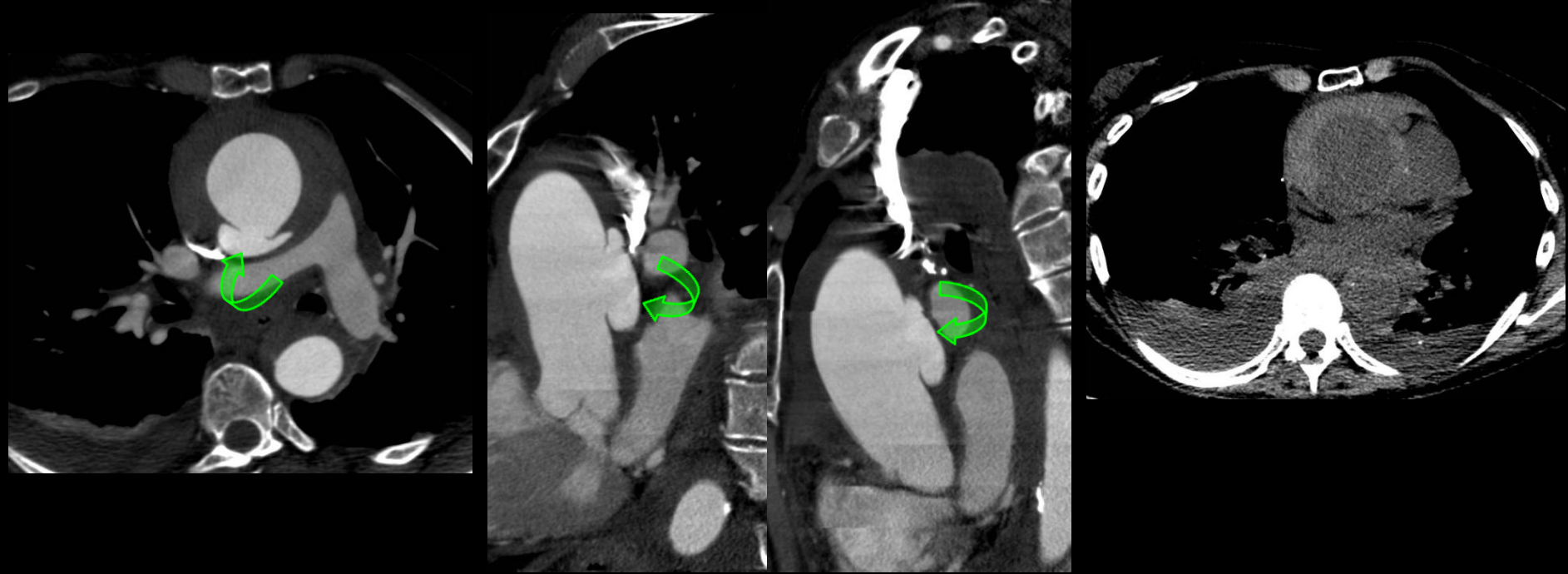


Cas n°4: 2009

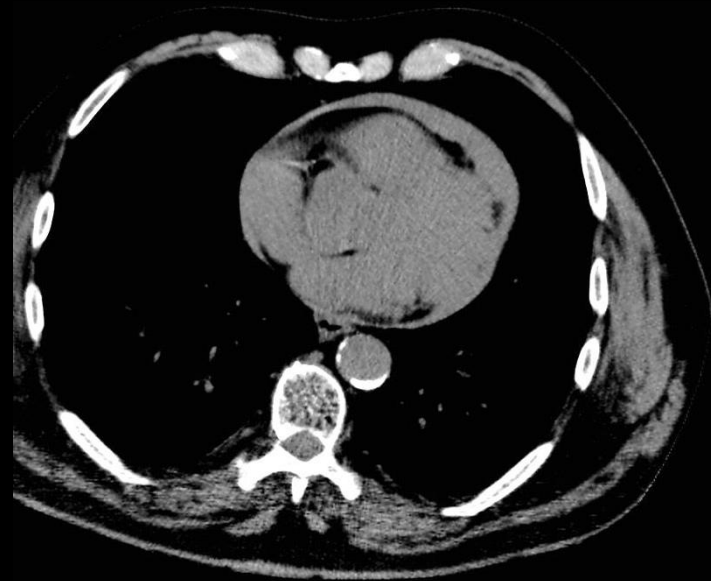
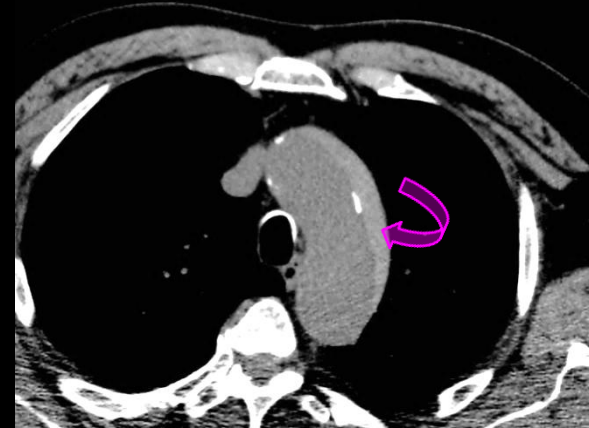
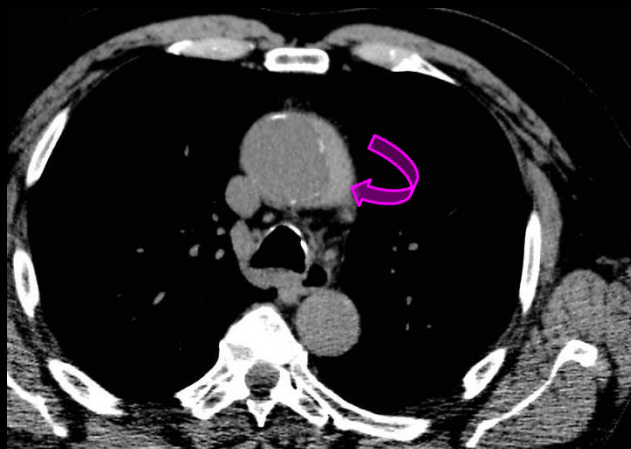
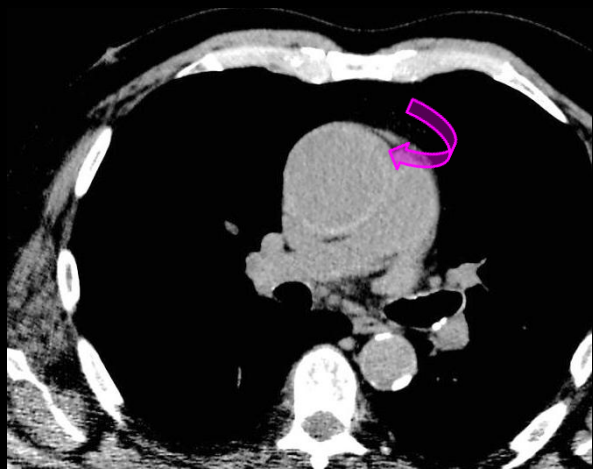
- Vue
- Décrit comme fuite de produit de contraste
- Noté dans la conclusion

- Noté dans la conclusion
- Décrit comme fuite de produit de contraste

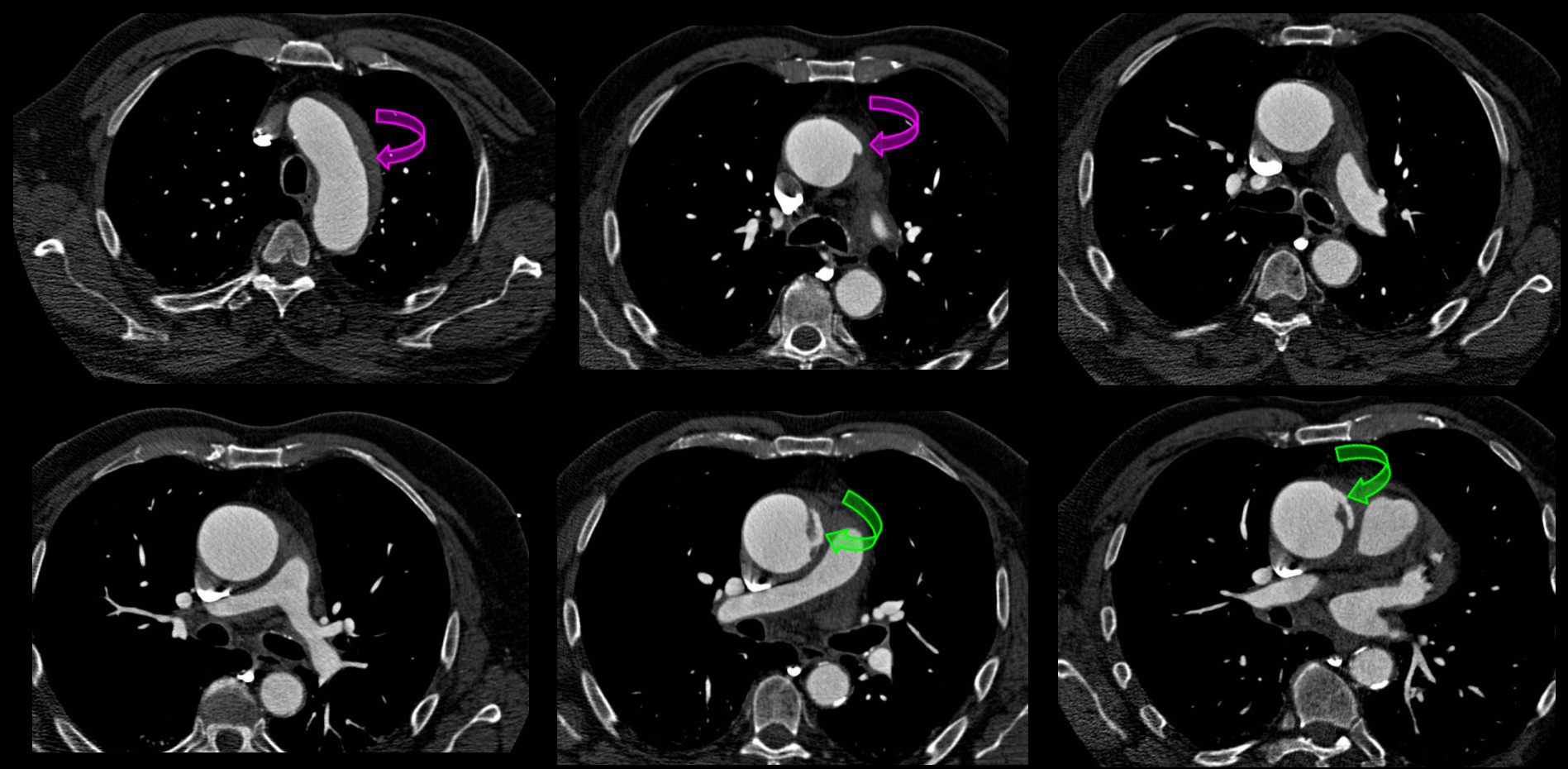




Cas n°4: 2009

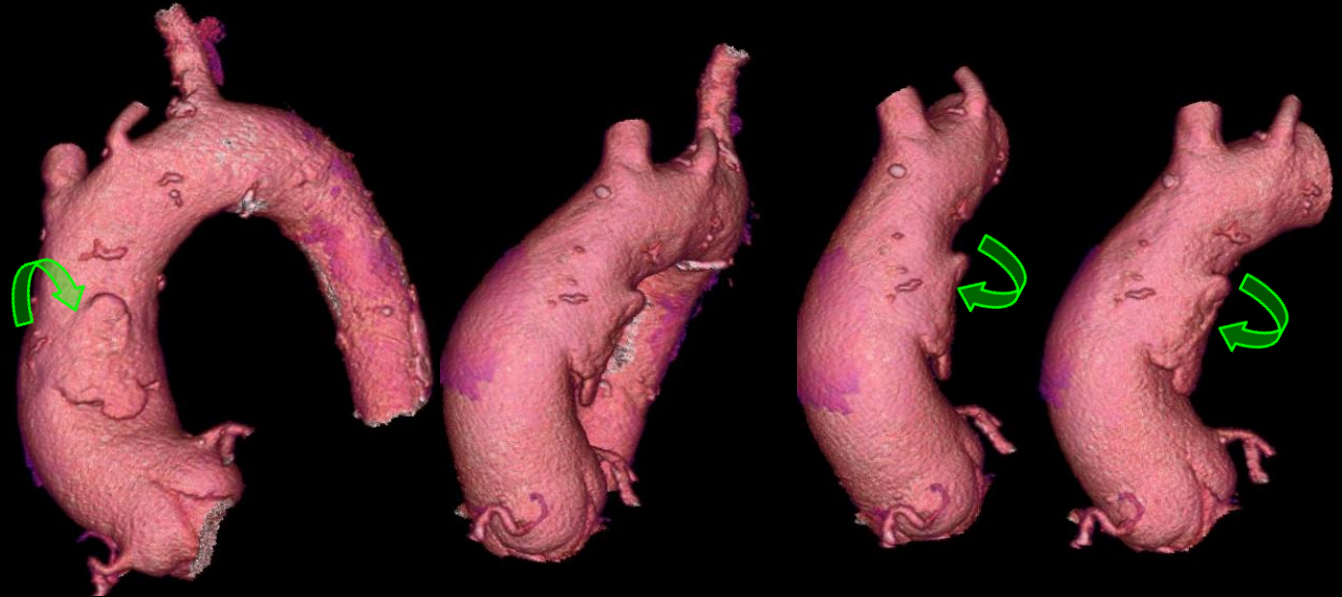
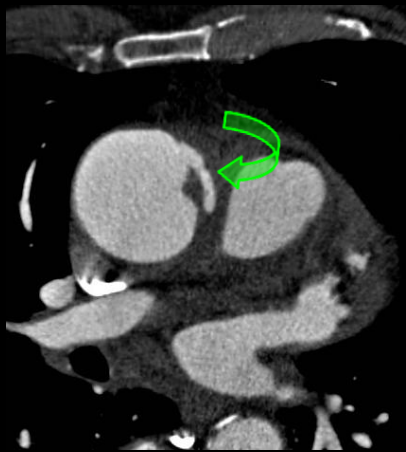
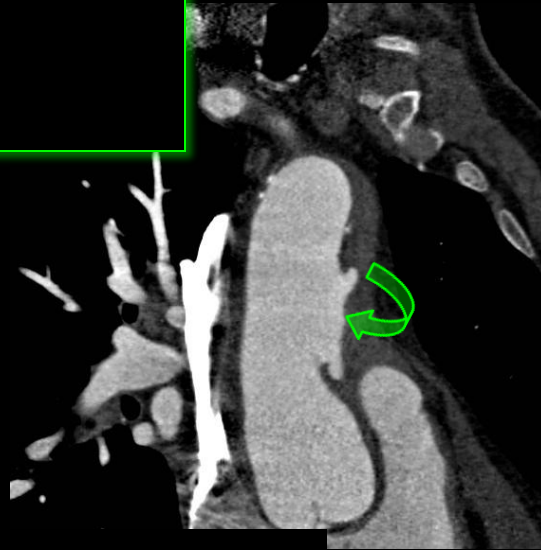


Cas n°5 : 2009

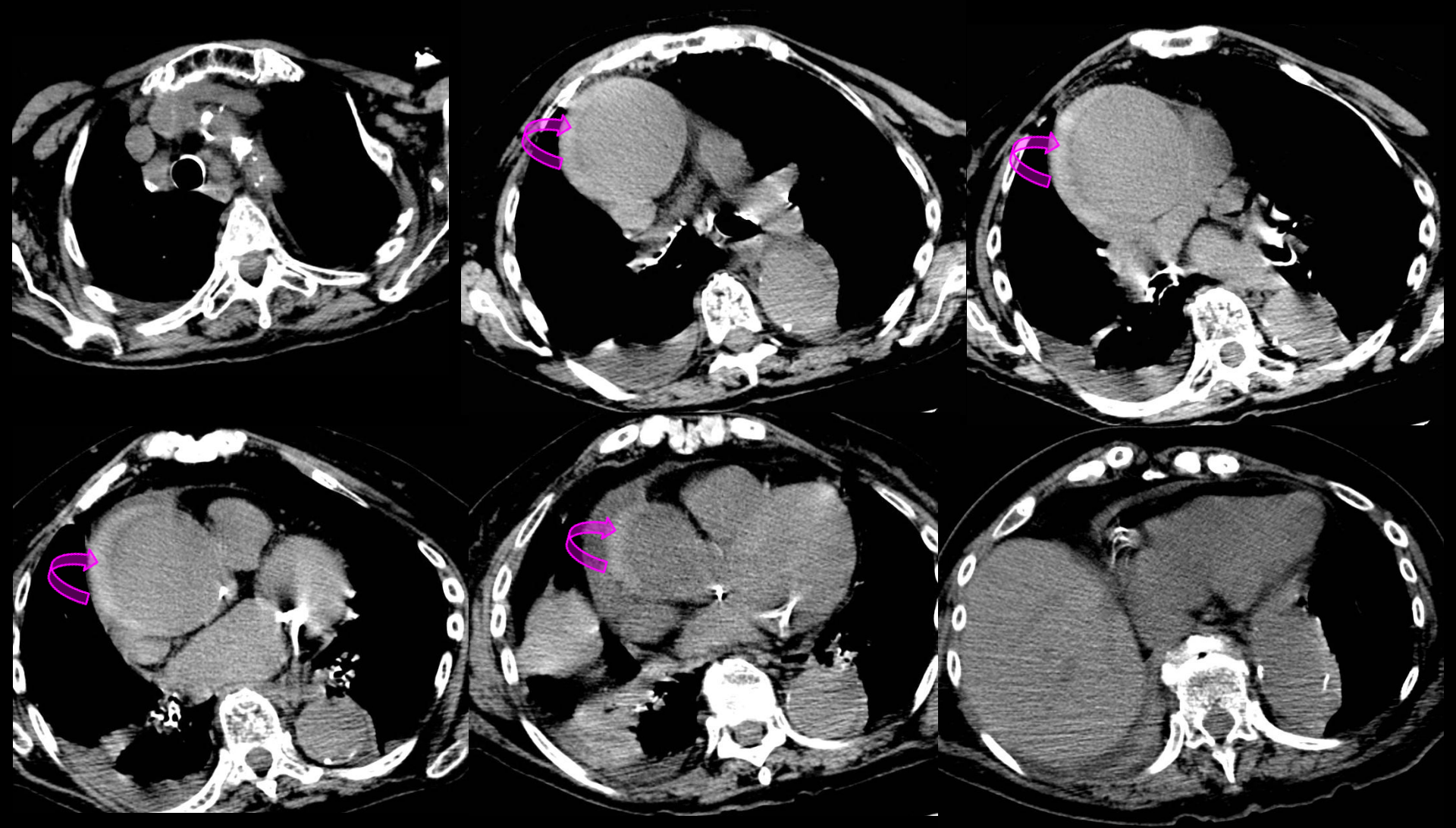


Cas n°5 : 2009

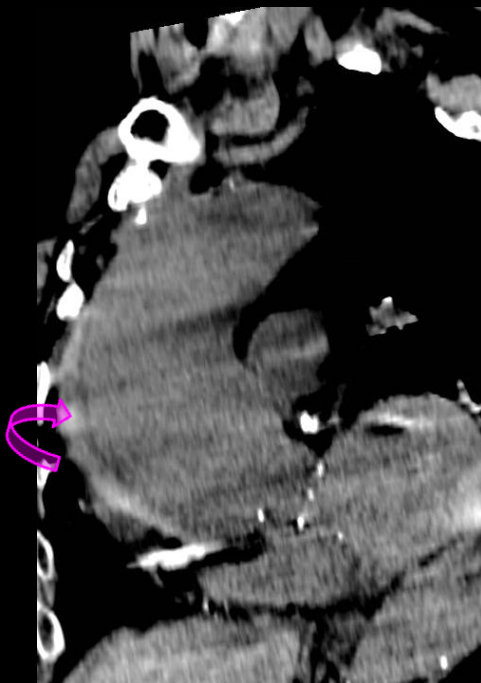
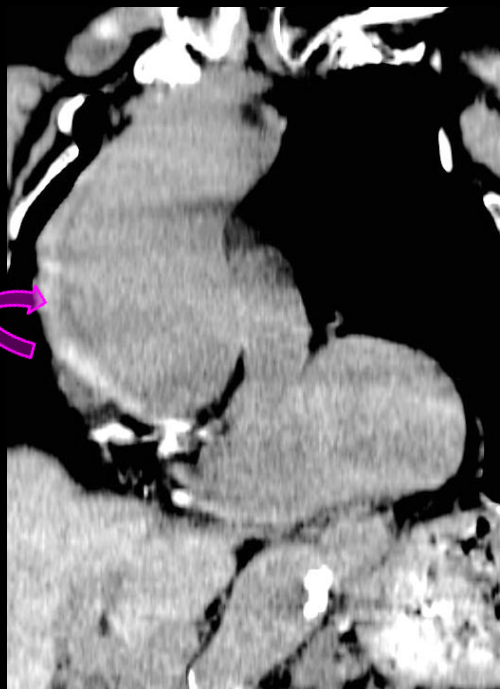
- Vue
- Décrit comme fuite de produit de contraste
- Pas noté dans la conclusion



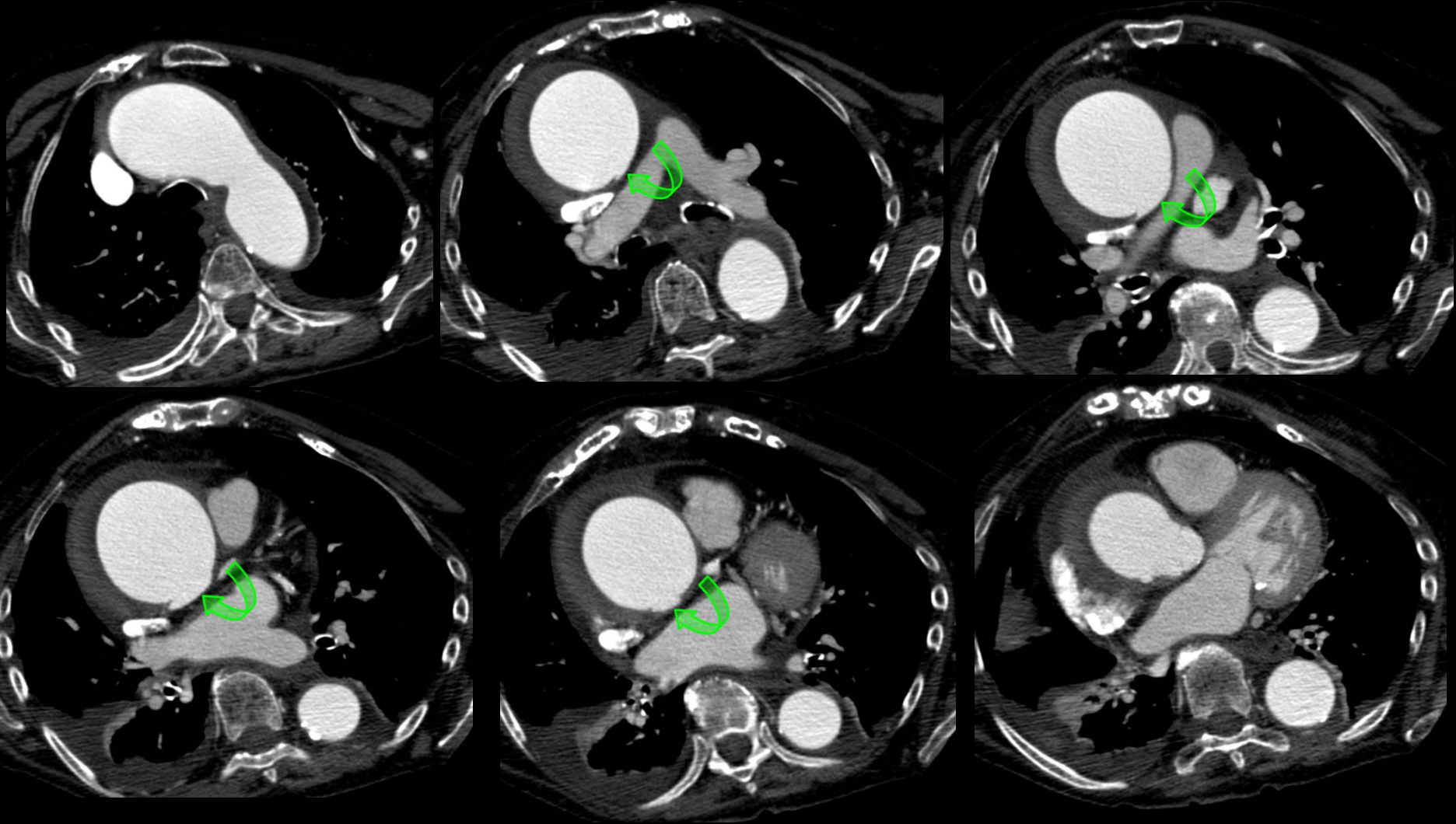
Cas n°5 : 2009



Cas n°6: 2009



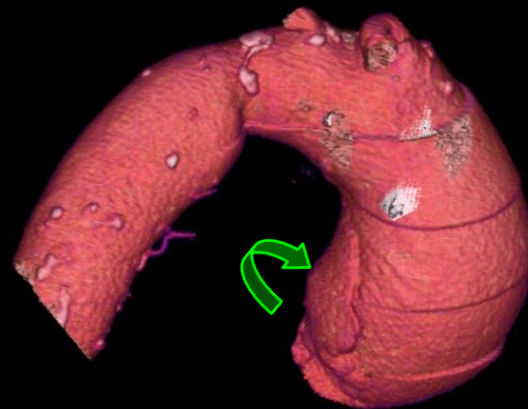
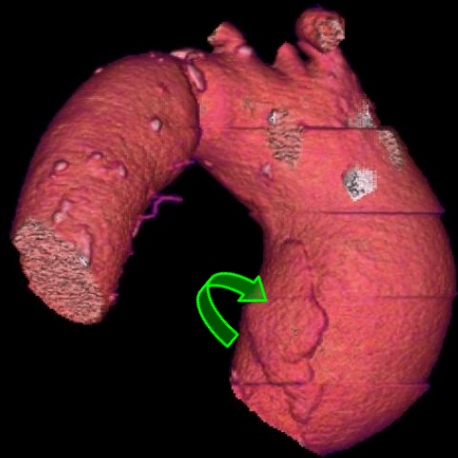
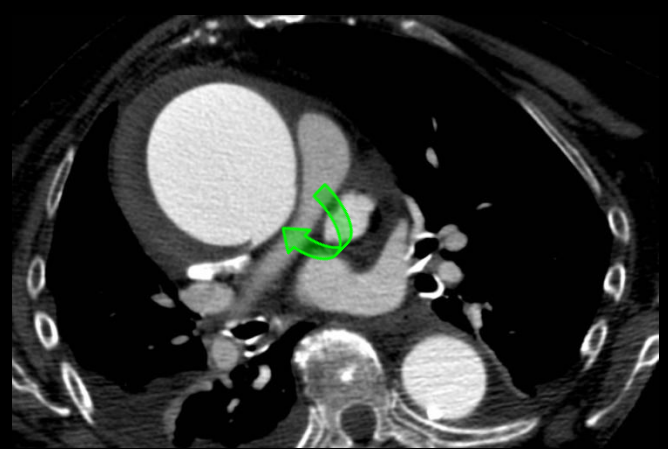
Cas n°6: 2009



- Vue
- Décrit comme flap intimal
- Pas noté dans la conclusion

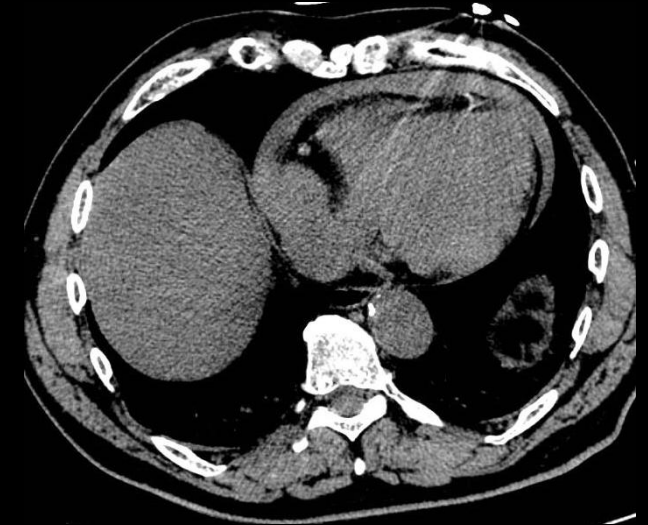
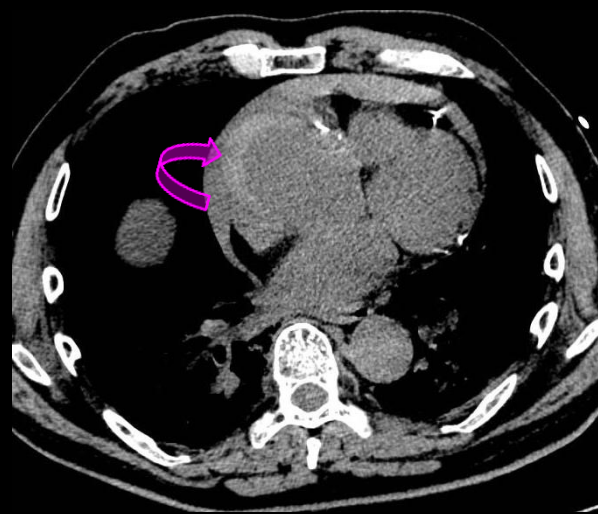
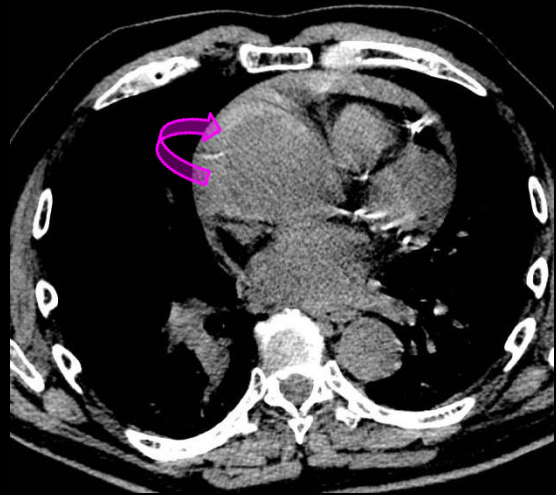
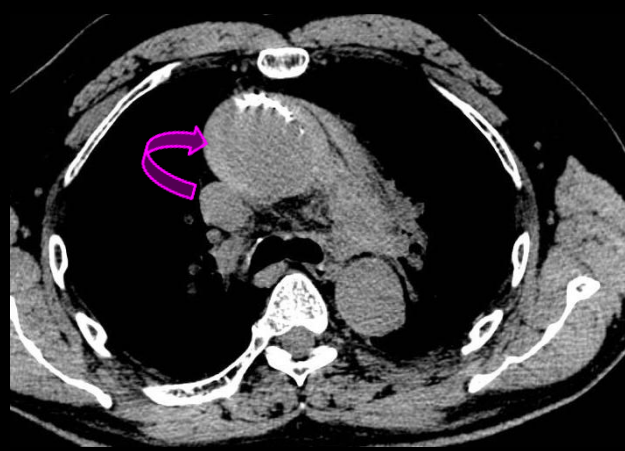
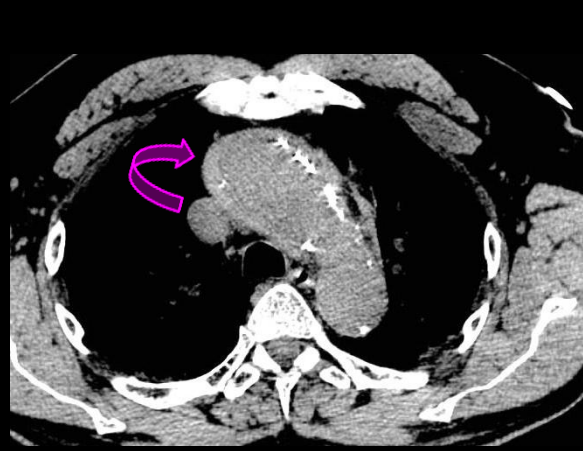
- Pas noté dans la conclusion
- Décrit comme flap intimal

Cas n°6: 2009

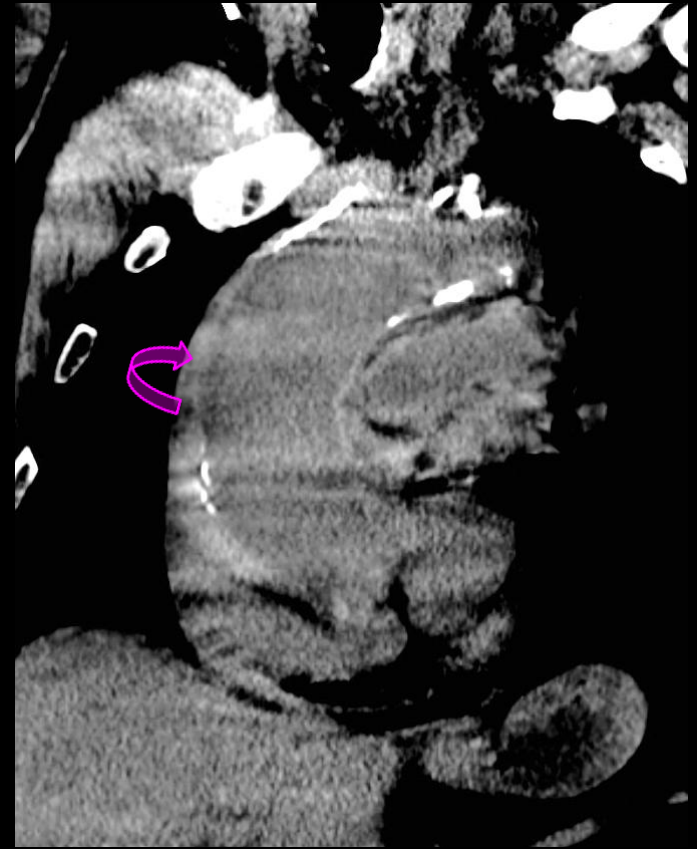
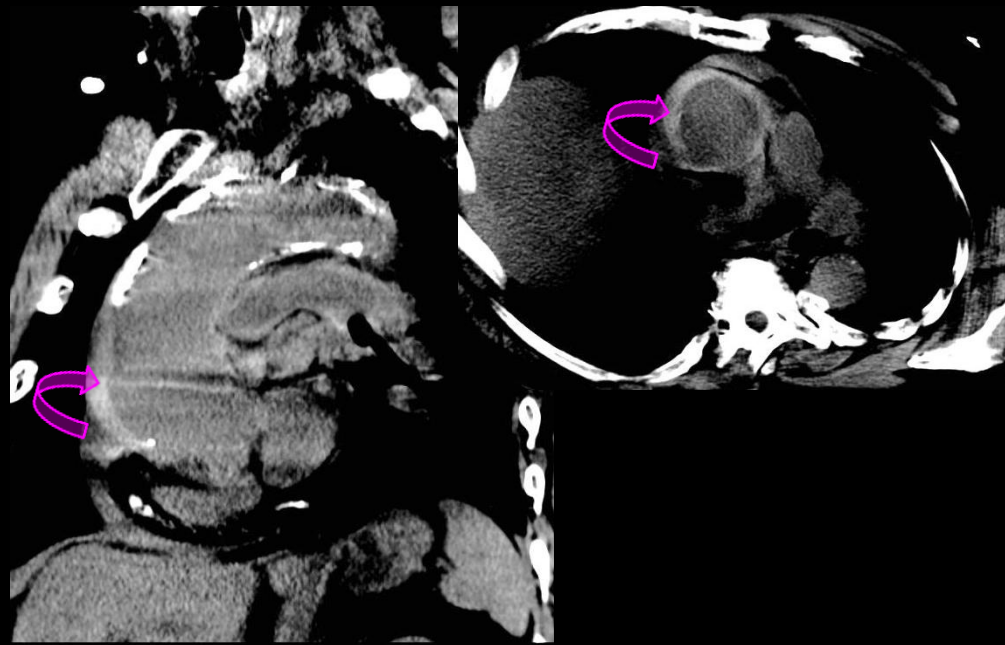


Cas n°6: 2009

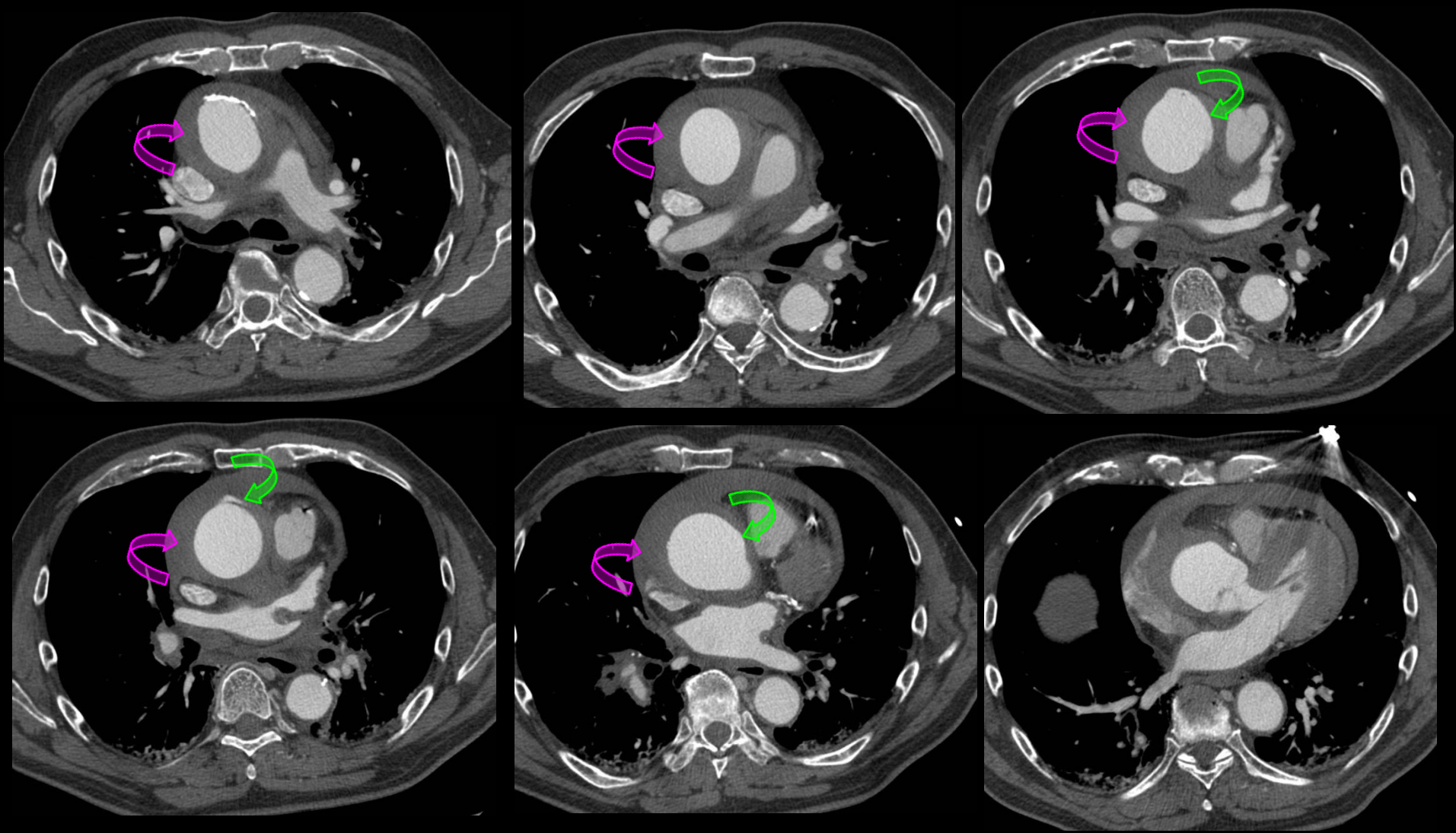




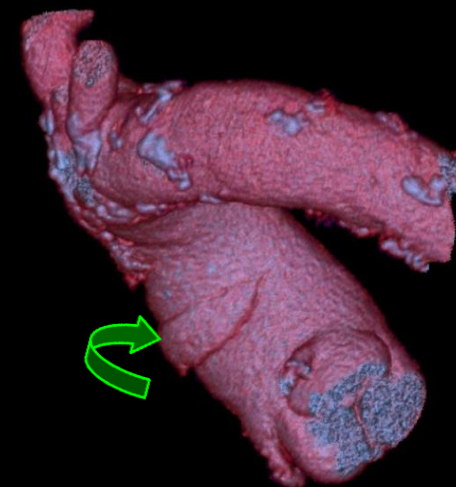
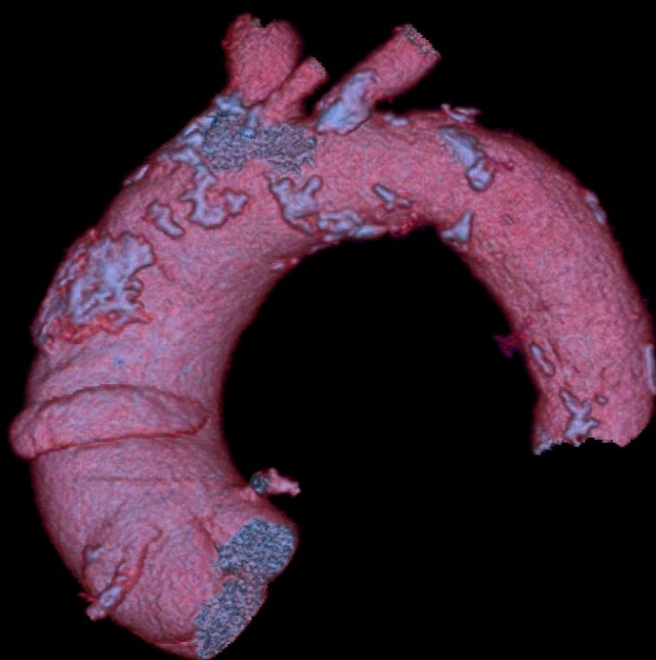
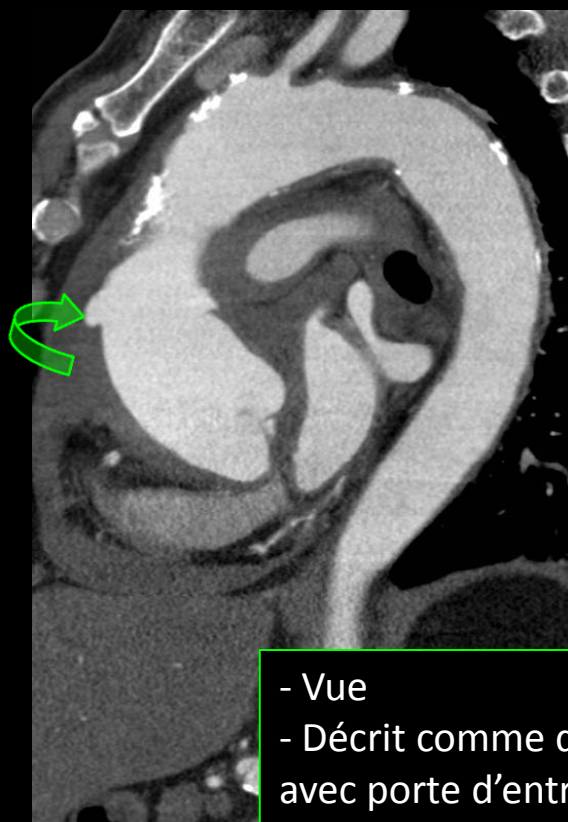
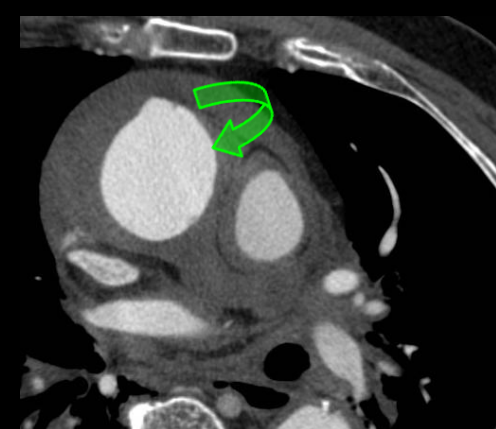
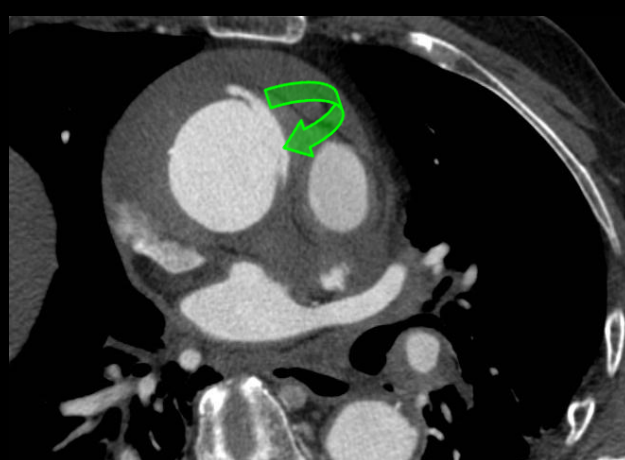
Cas n°7: 2005



Cas n°7: 2005

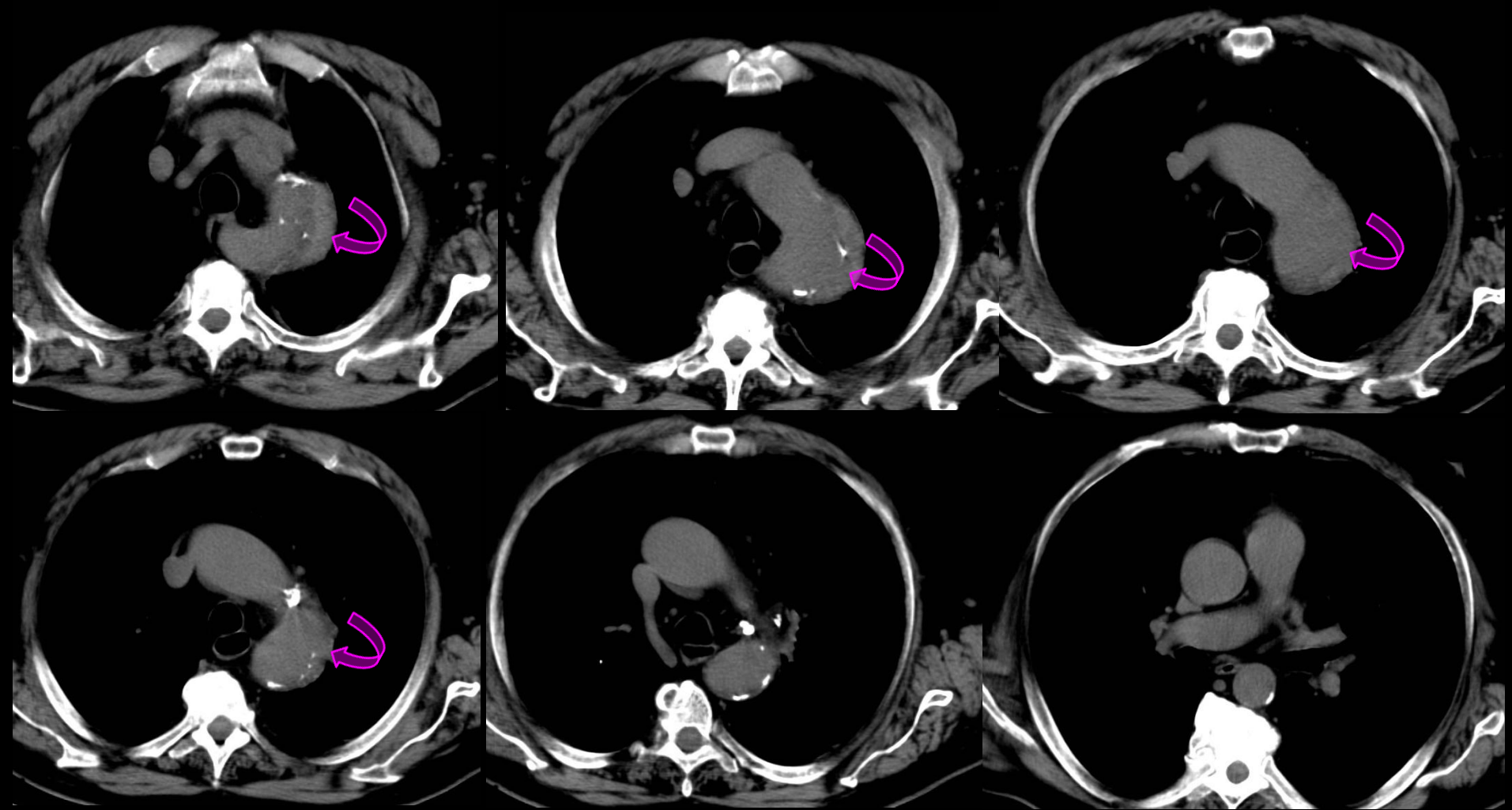


Cas n°7: 2005

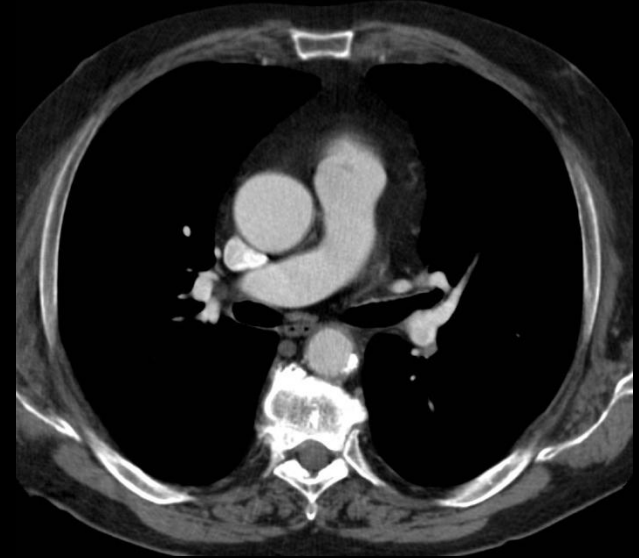
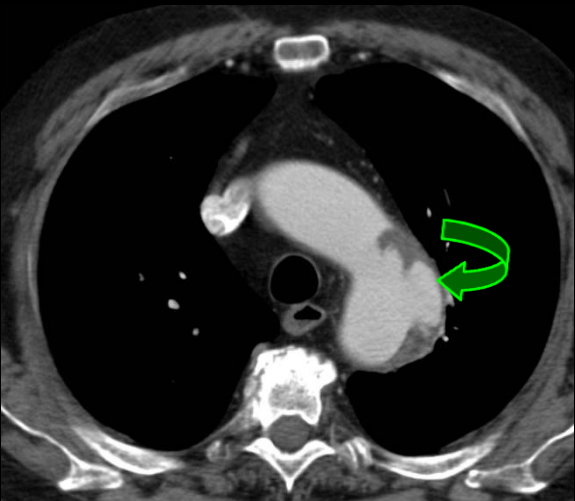
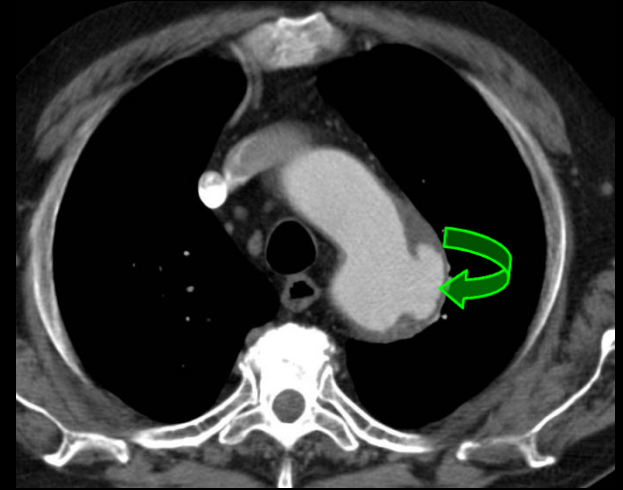
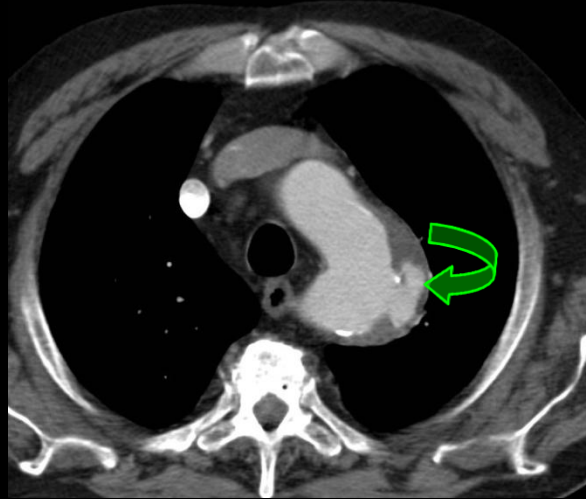


- Vue
- Décrit comme dissection débutante avec porte d'entrée antérieure
- Noté dans la conclusion

Cas n°7: 2005



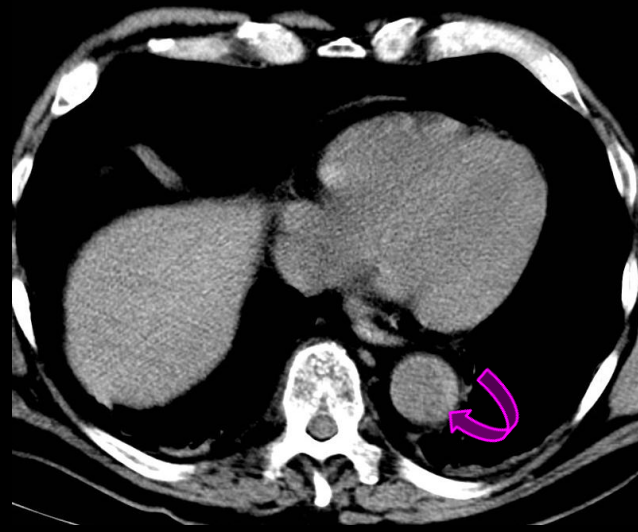
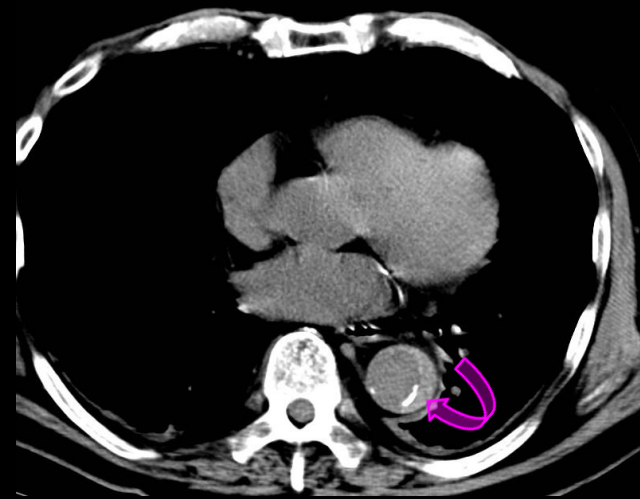
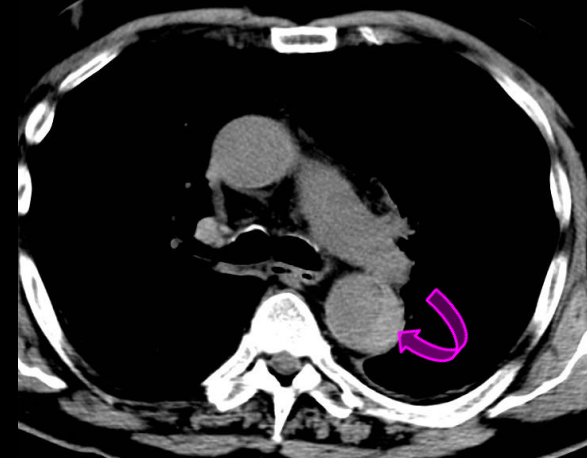
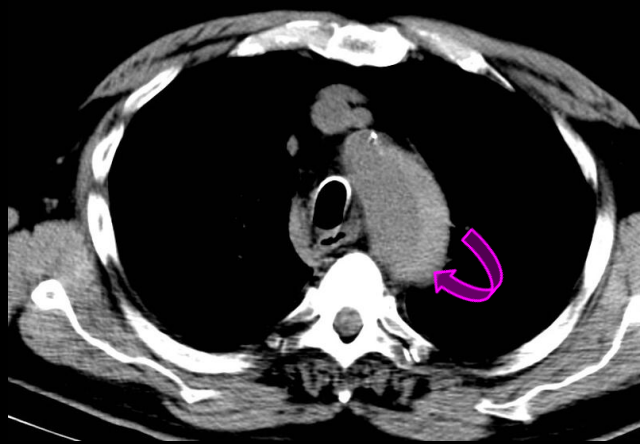
Cas n°8: 2004



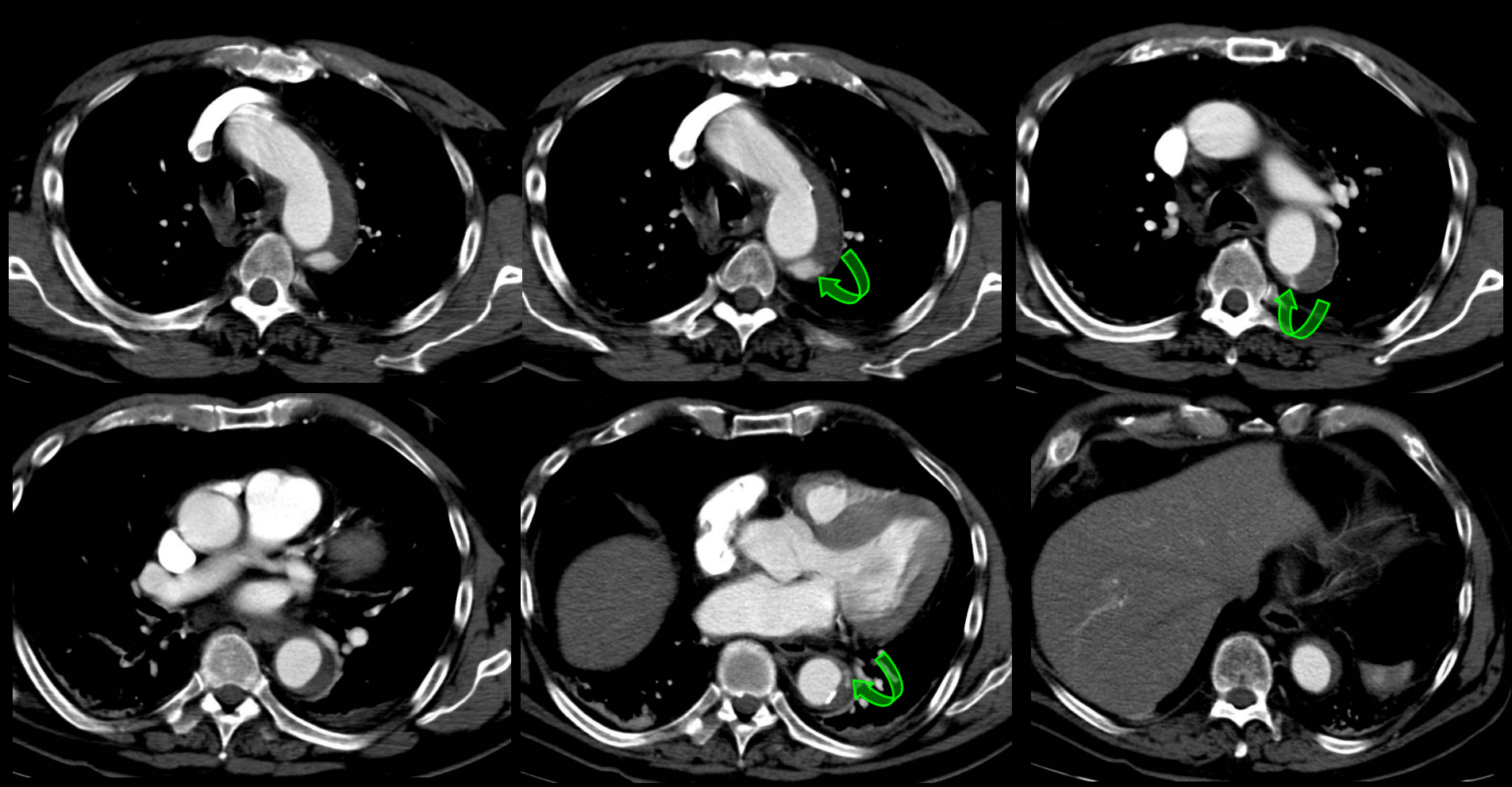
Cas n°8: 2004

- Vue
- Décrit comme ulcère
- Pas noté dans la conclusion

- Pas noté dans la conclusion
- Décrit comme ulcère



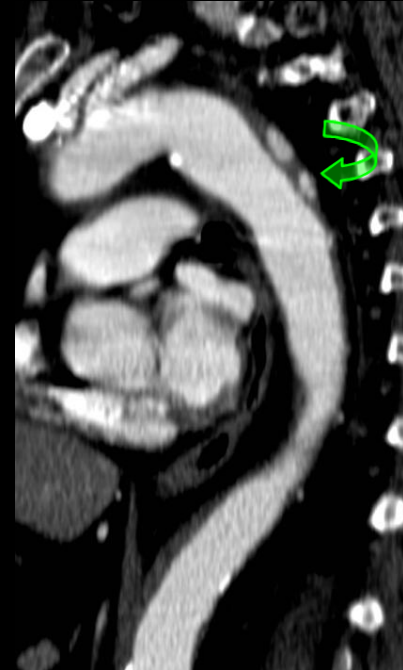
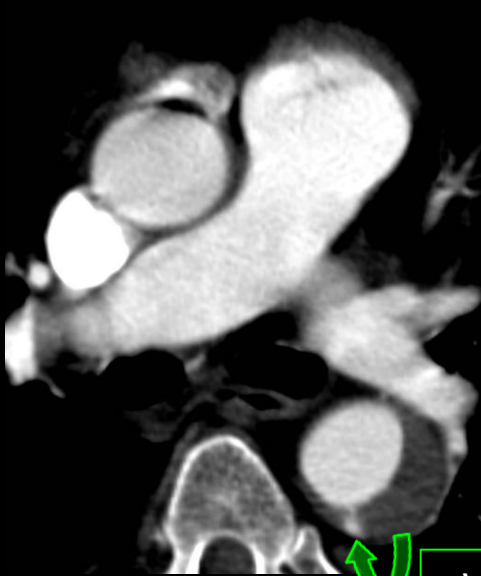
Cas n°9: 2003



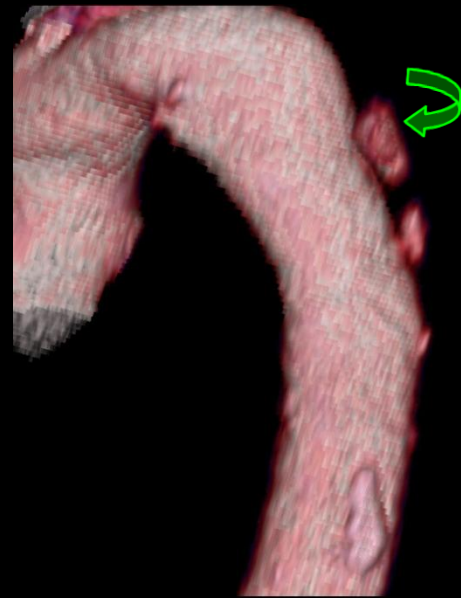
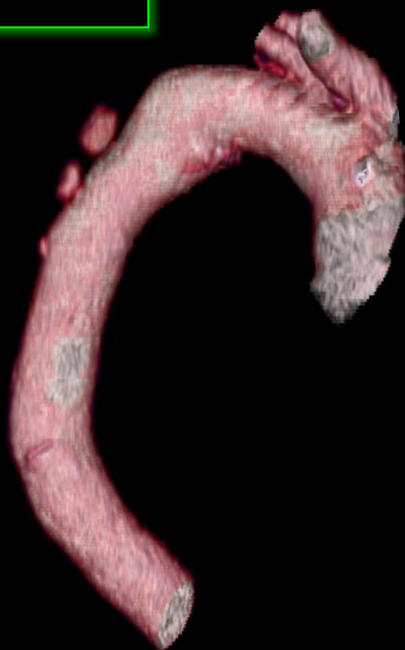
Cas n°9:

2003

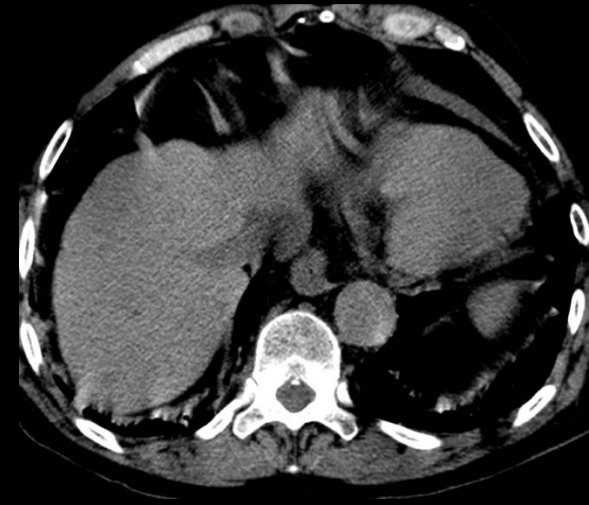
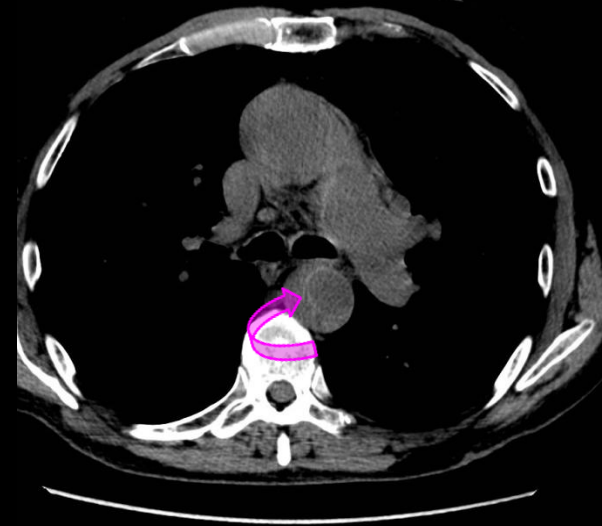
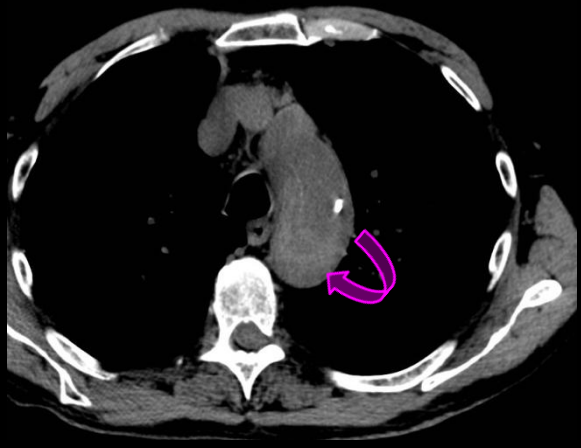




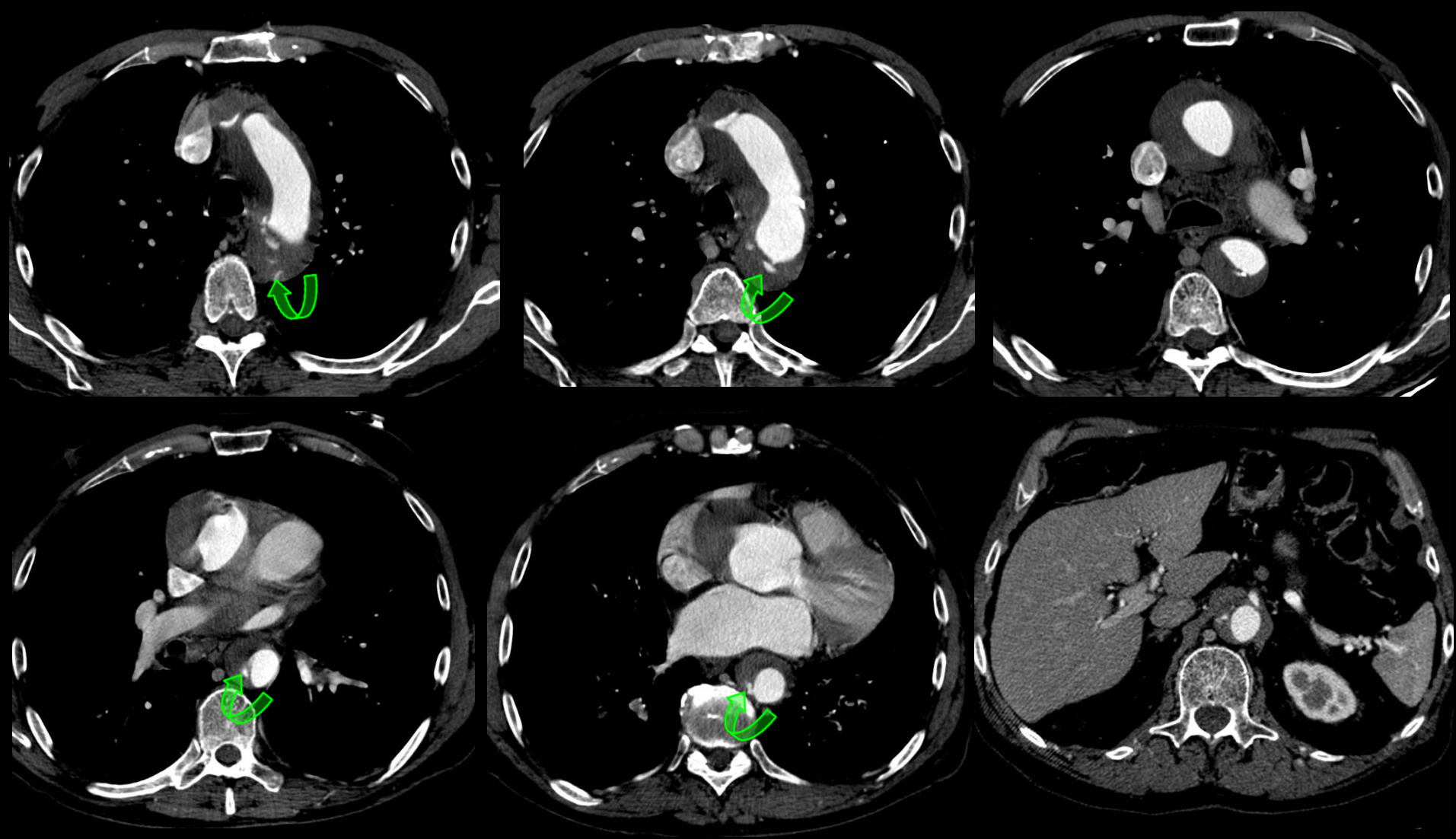
- Vue  
- Décrit comme zone de réticulation  
- Pas noté dans la conclusion



Cas n°9:  
2003



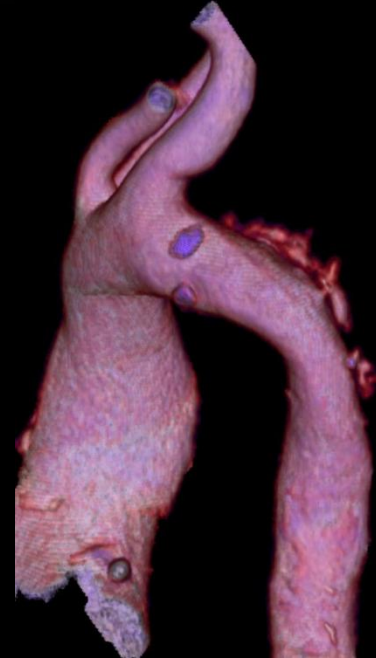
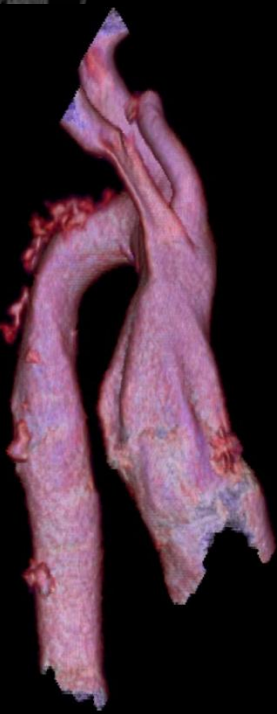
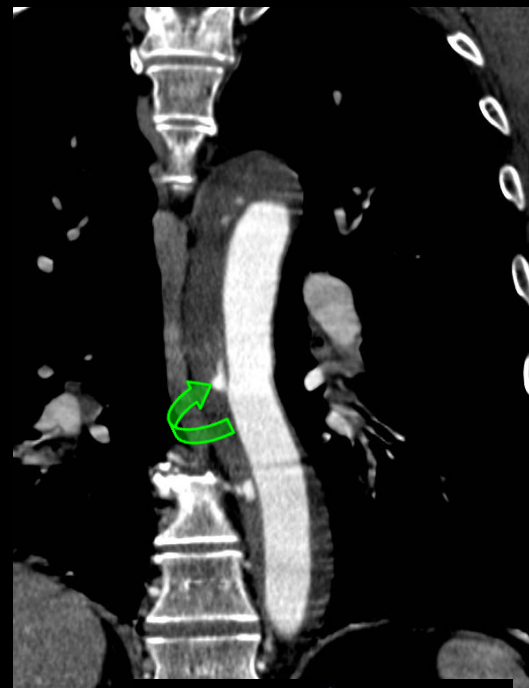
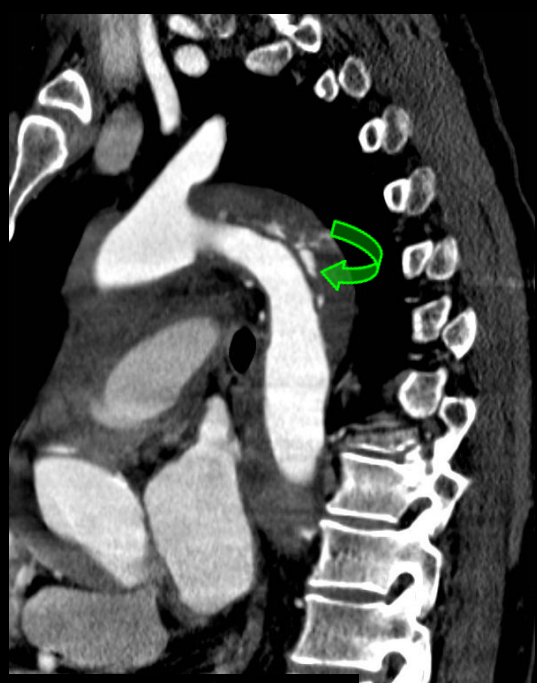
Cas n°10: 2009



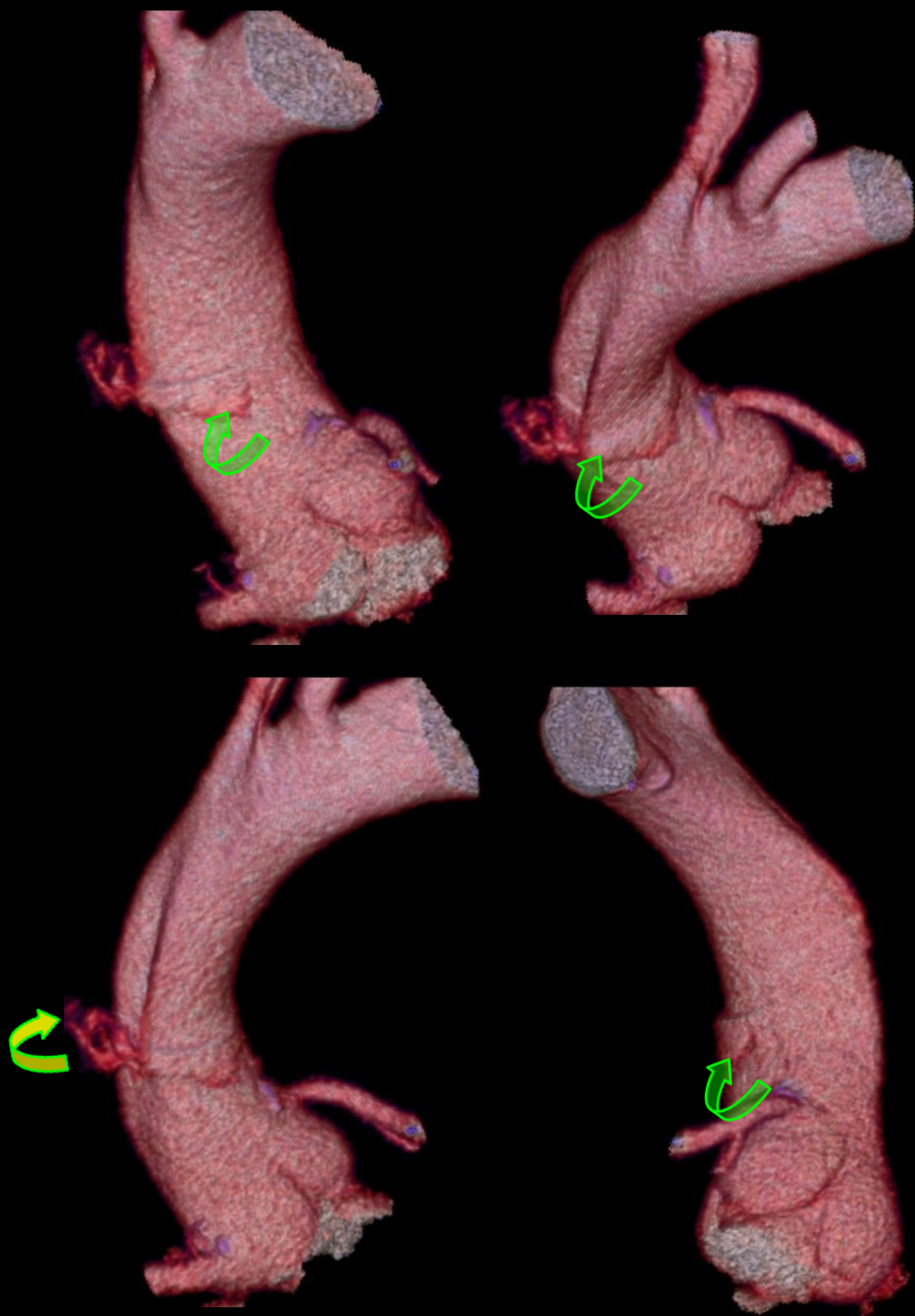
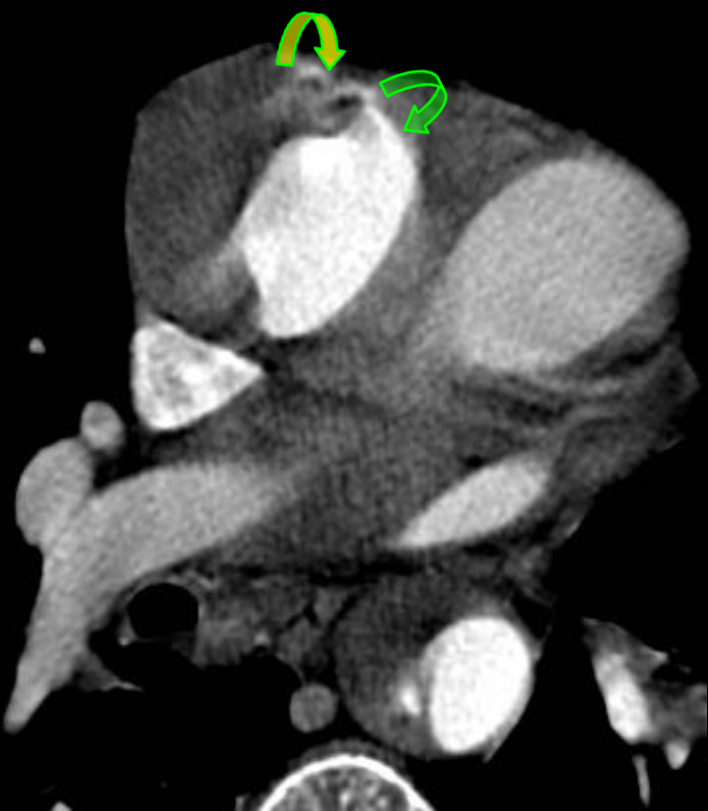
- Vue
- Décrits comme multiples fissurations
- Pas noté dans la conclusion

- Pas noté dans la conclusion
- Décrits comme multiples fissurations

Cas n°10: 2009



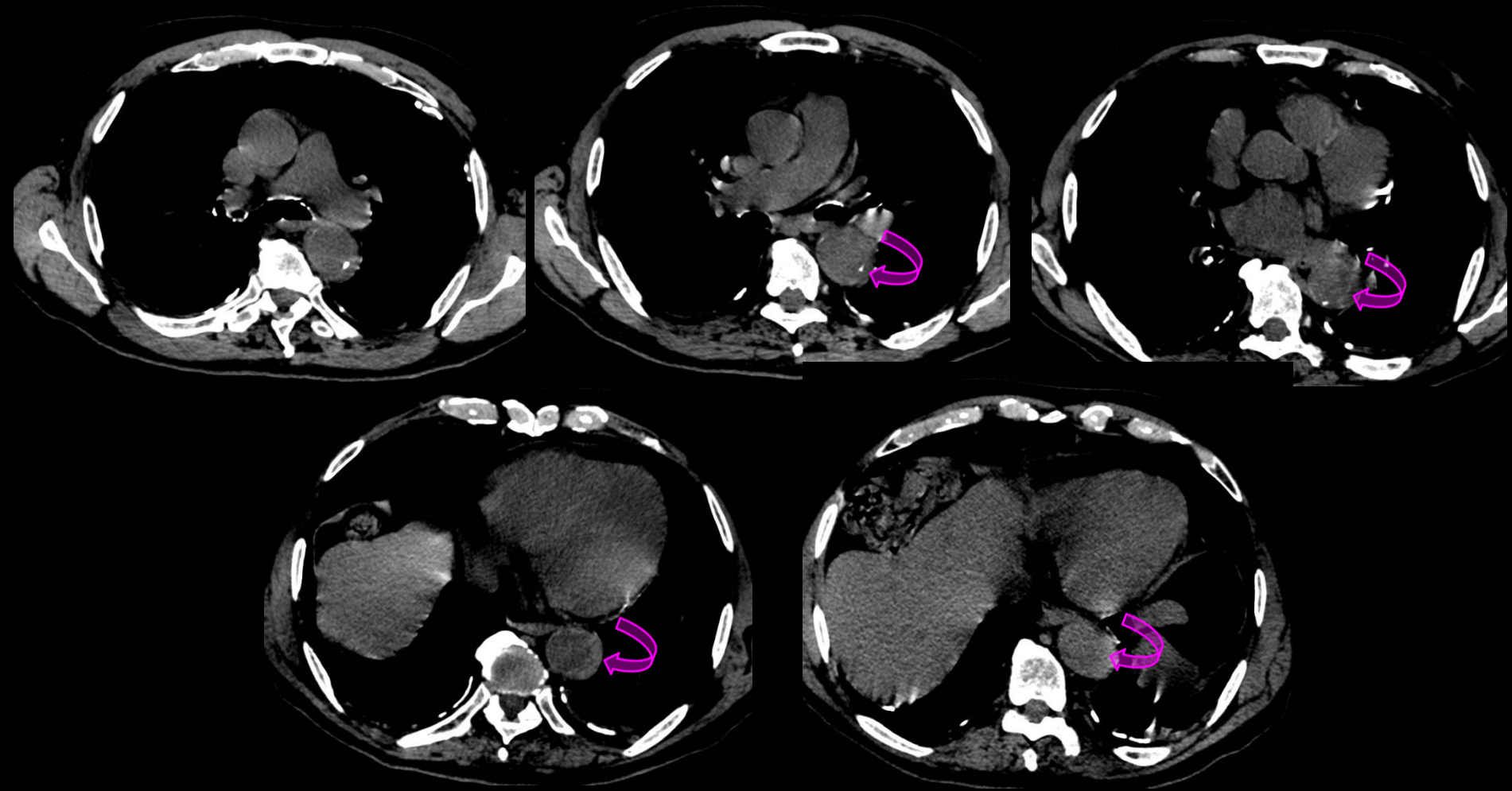
Cas n°10: 2009



Pas vue

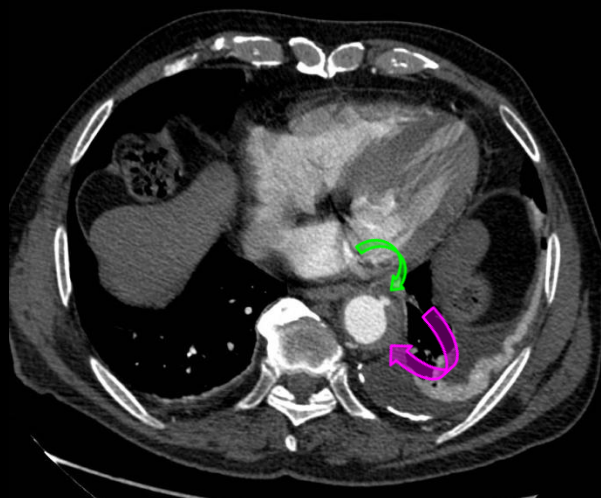
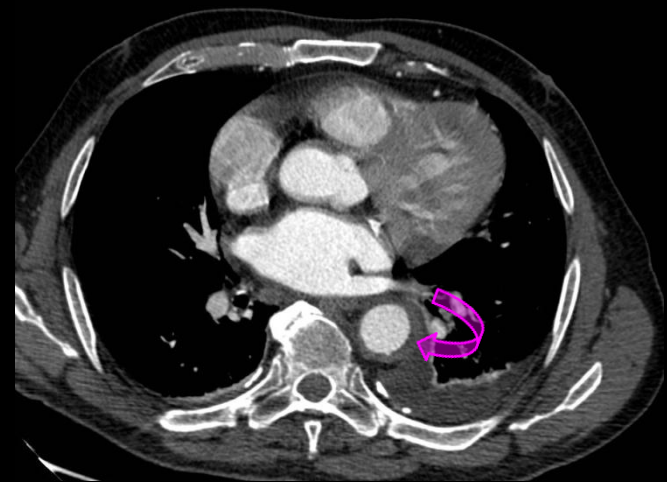
Pas vue

Cas n°10: 2009



Cas n°11 : 2009

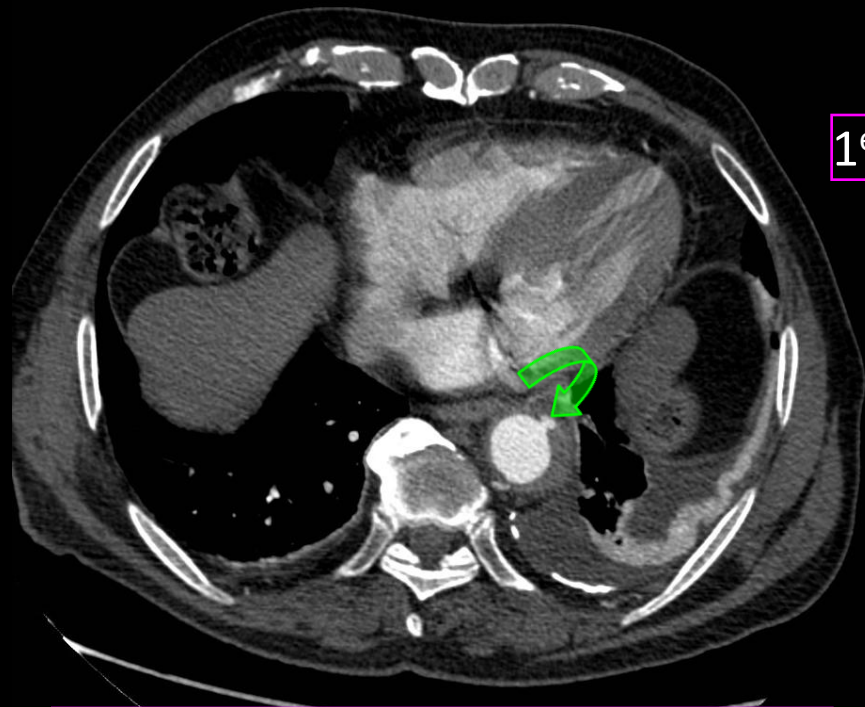
1<sup>er</sup> scan



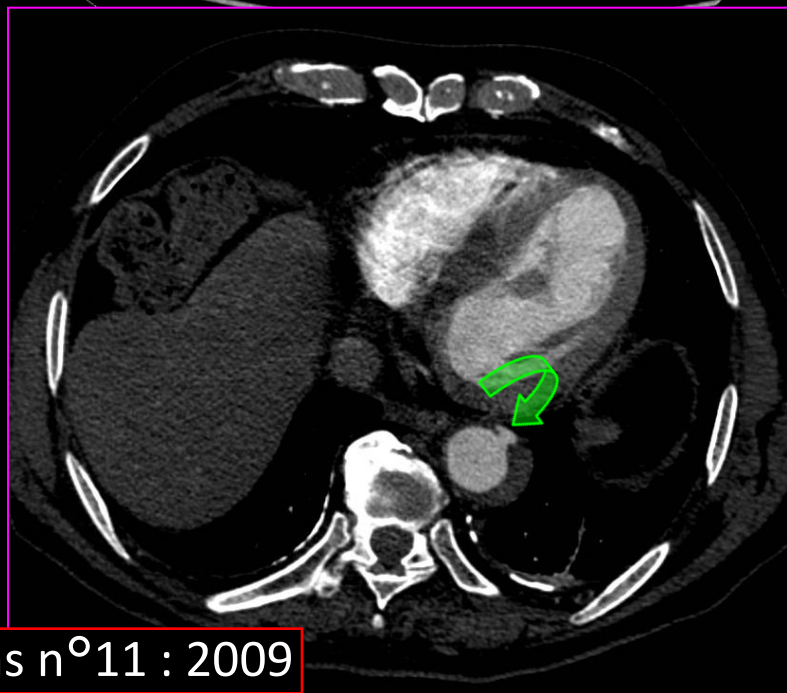
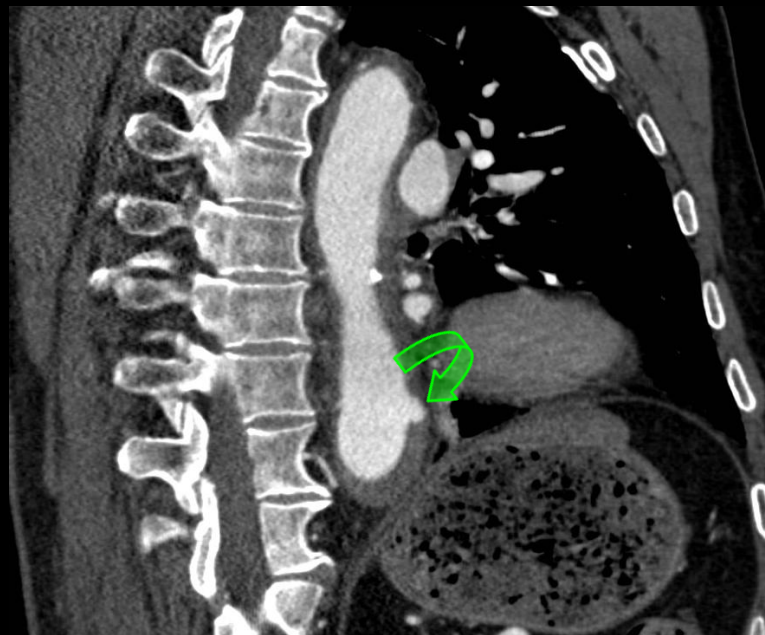
Cas n°11 : 2009

Pas vue

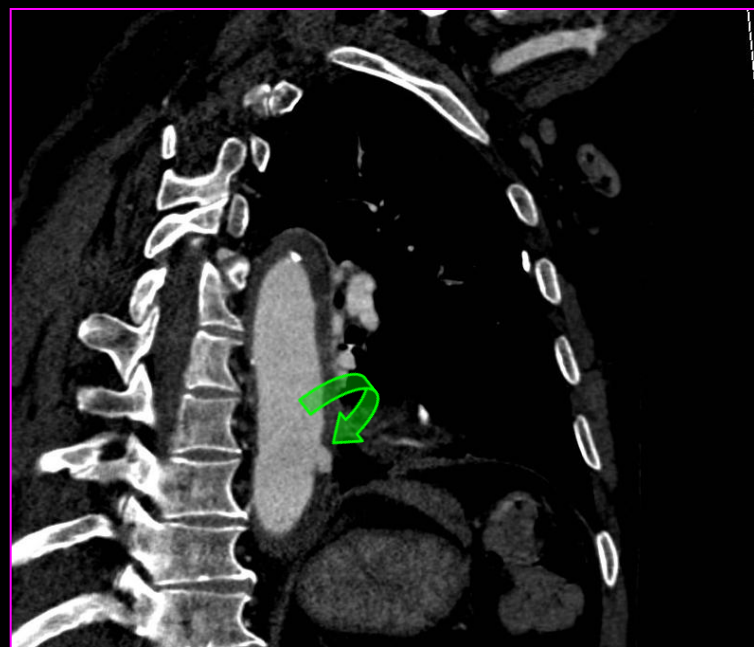
1<sup>er</sup> scan



1<sup>er</sup> scan



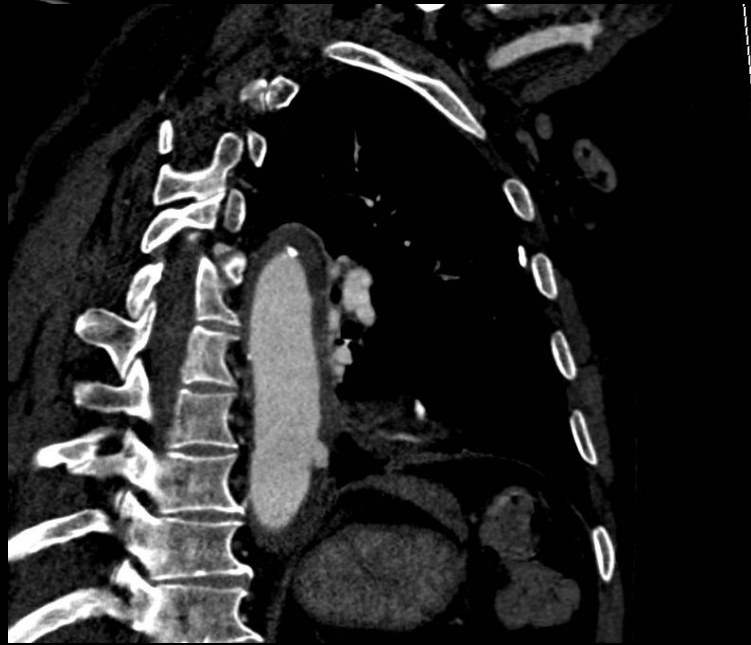
2<sup>ème</sup> scan



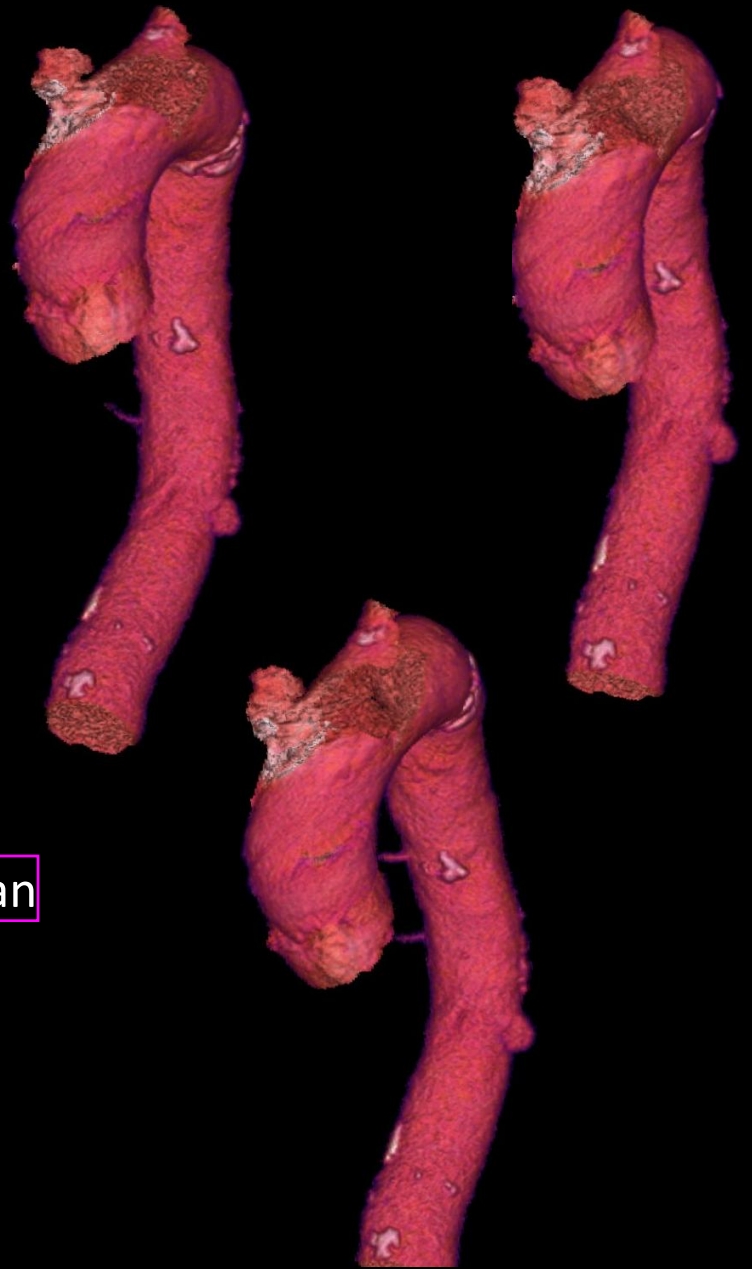
Pas vue

Cas n°11 : 2009

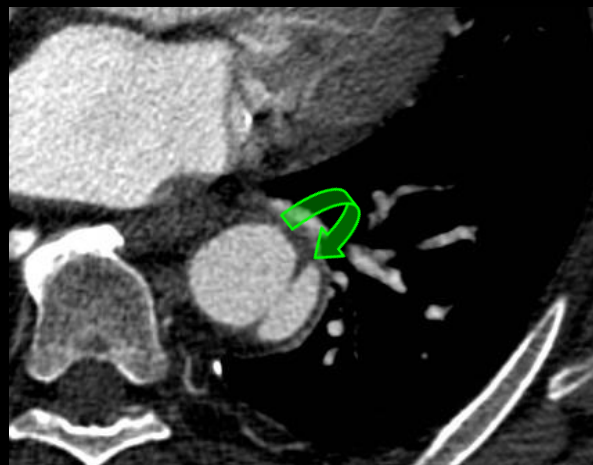




2<sup>ème</sup> scan



Cas n°11 : 2009

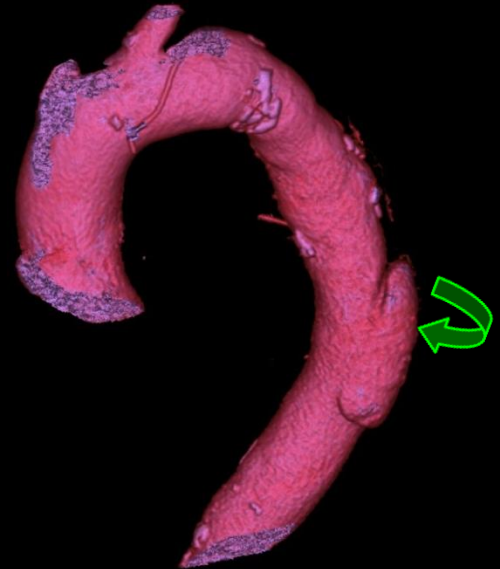
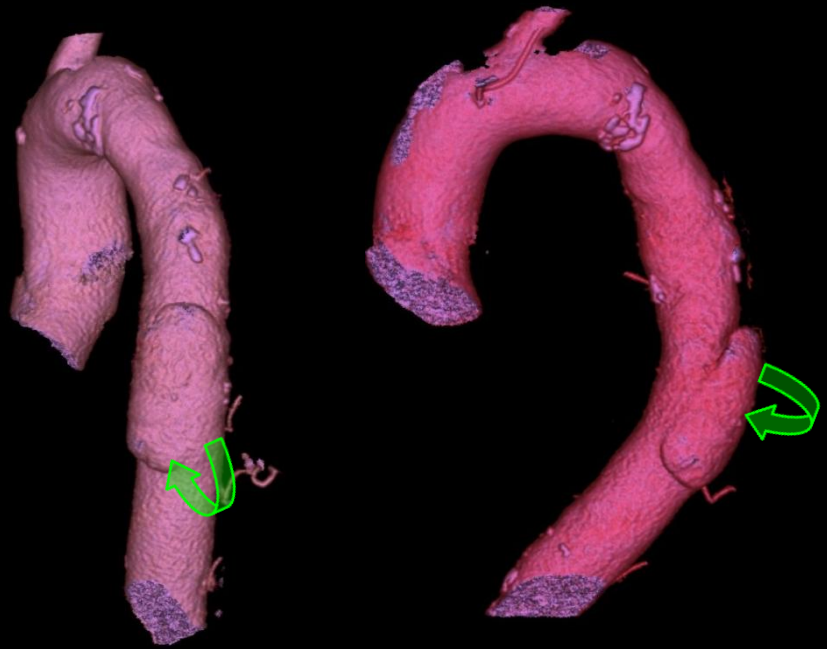
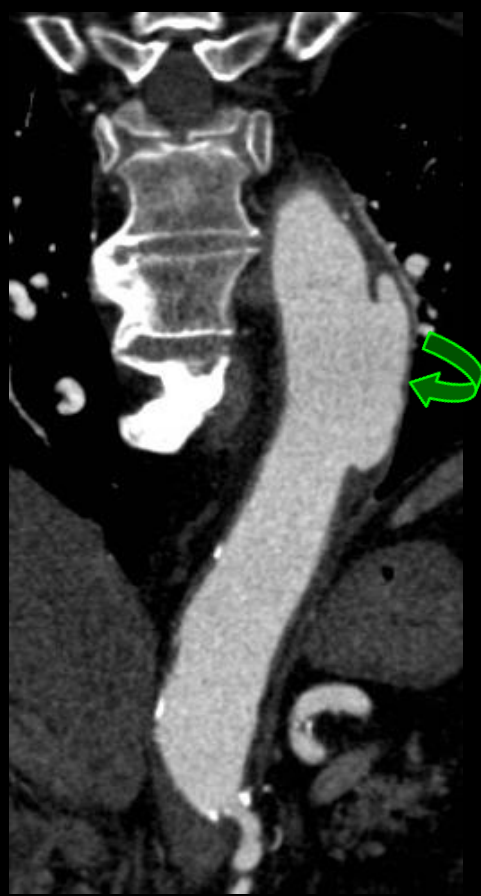
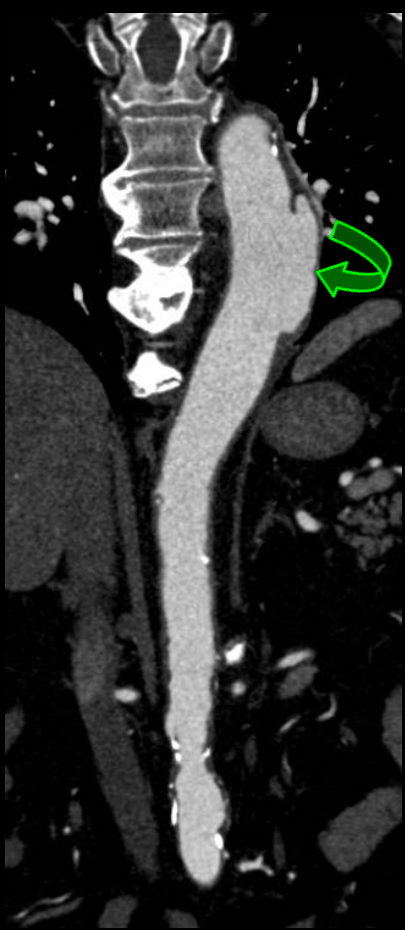


3<sup>ème</sup> scan

Pas vue

Pas vue

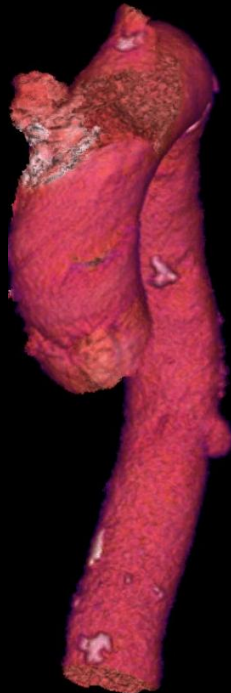
Cas n°11 : 2009



3<sup>ème</sup> scan

Pas vue

Cas n°11 : 2009



2<sup>ème</sup> scan

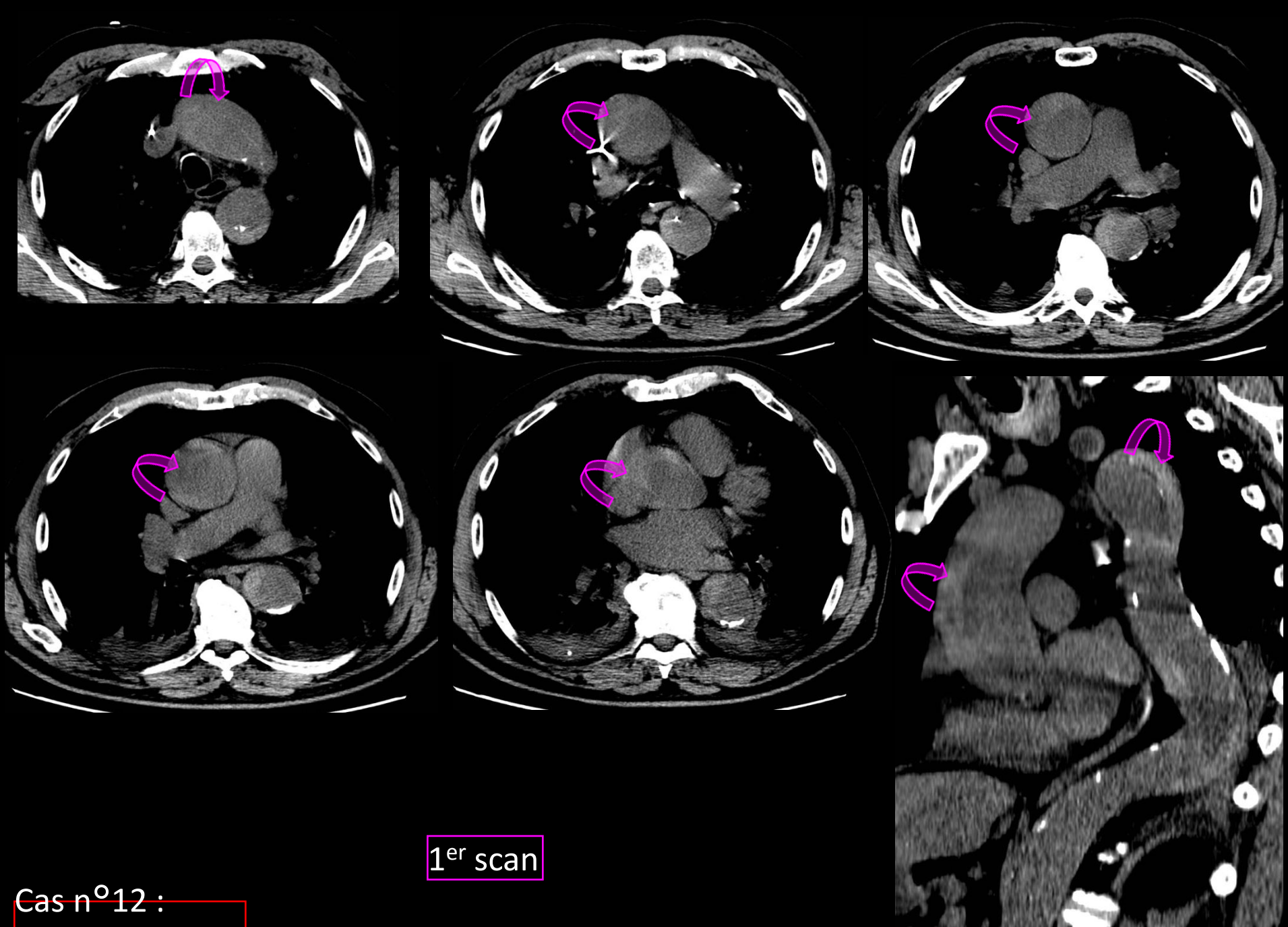


3<sup>ème</sup> scan

Pas vue

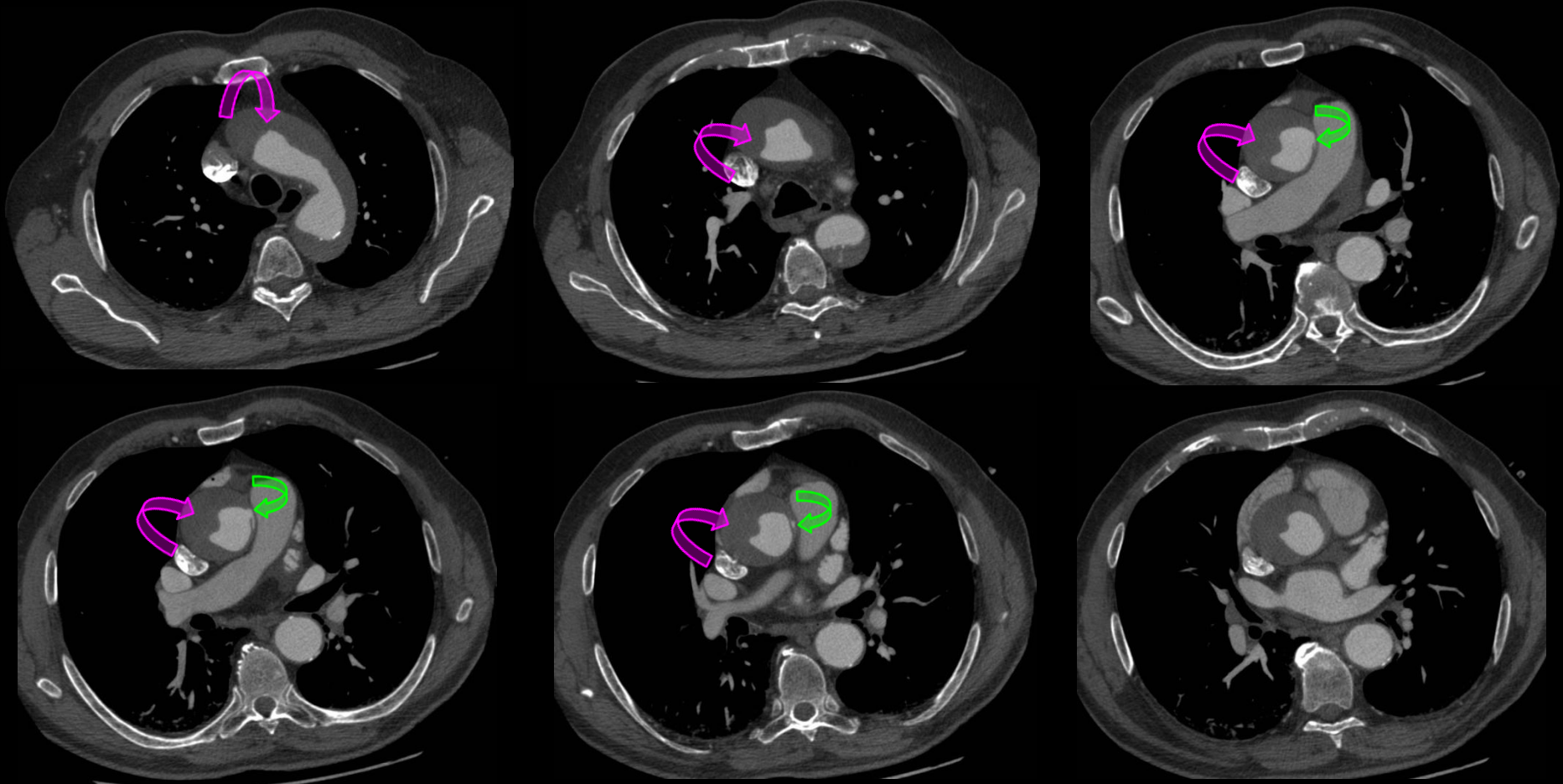
Pas vue

Cas n°11 : 2009



1<sup>er</sup> scan

Cas n°12 :  
2010



Pas vue

1<sup>er</sup> scan

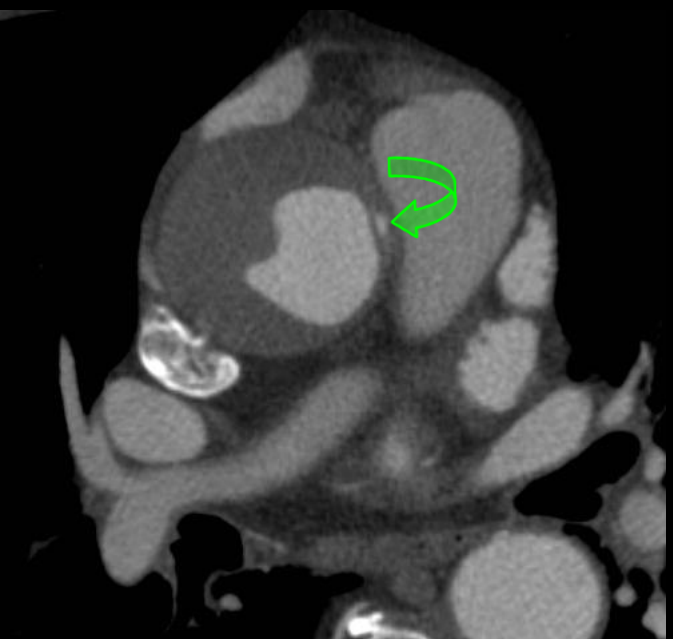
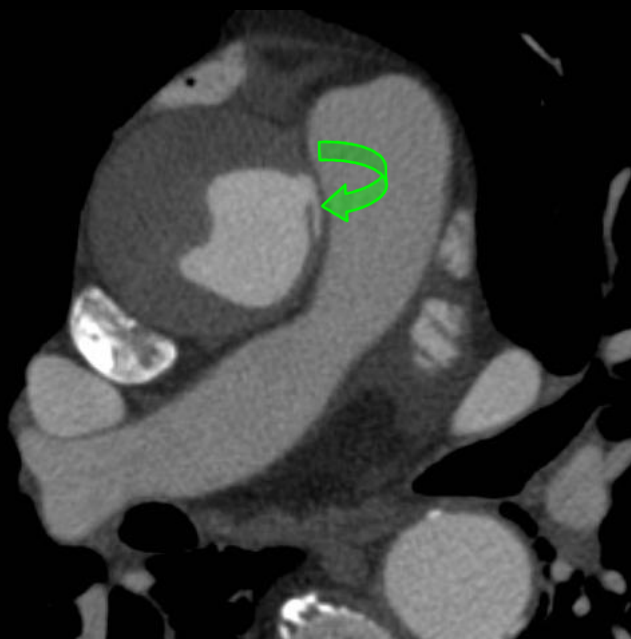
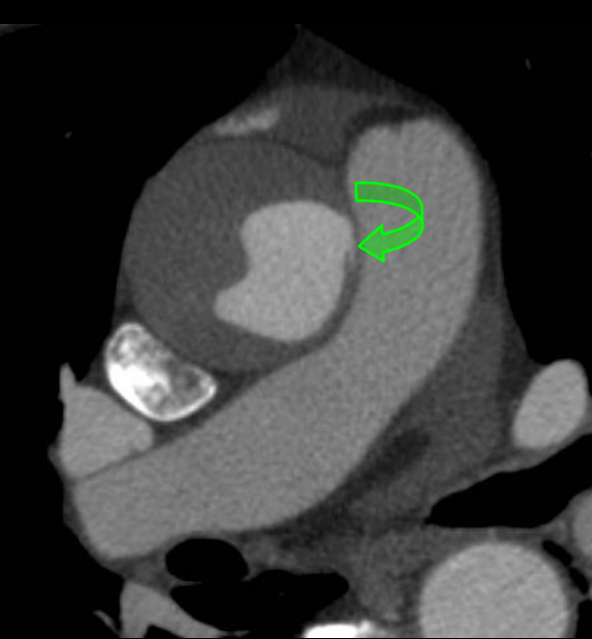
Cas n°12 :  
2010

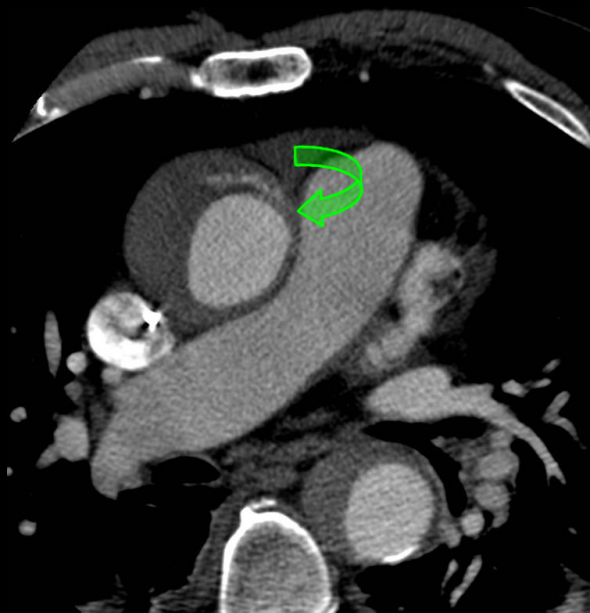
1<sup>er</sup> scan

Cas n°12 :  
2010

Pas vue

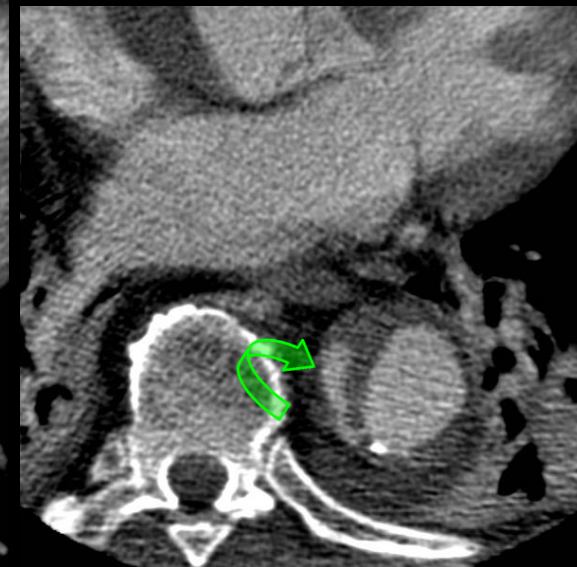
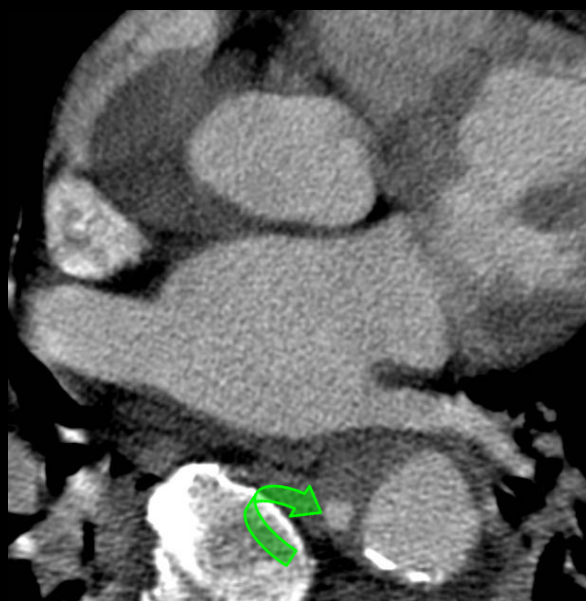
Pas vue





2<sup>ème</sup> scan

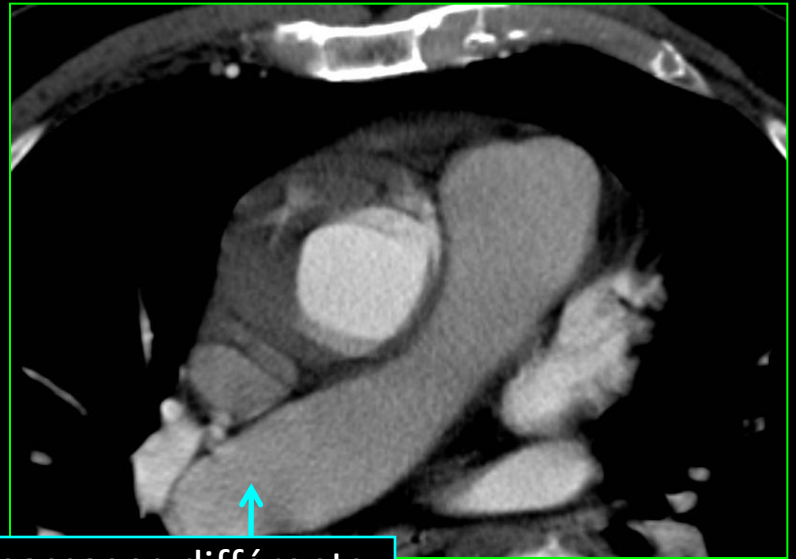
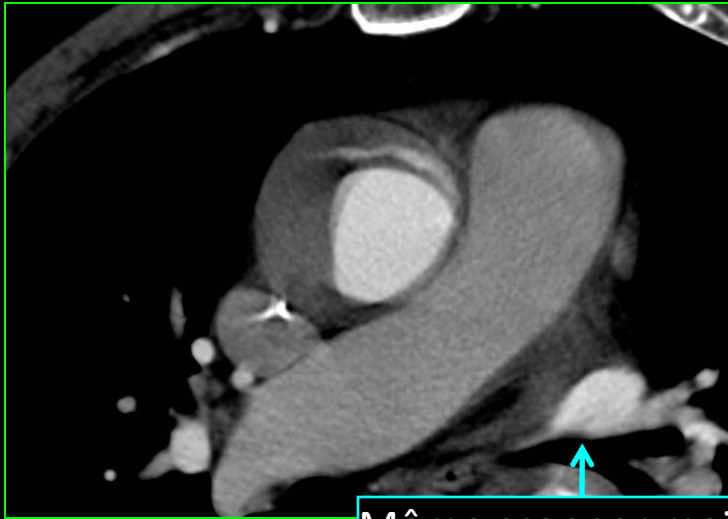
- Vue
- Décrit comme repérméabilisation du faux chenal
- Pas noté dans la conclusion
- Pas noté dans la conclusion



Cas n°12 :

2010

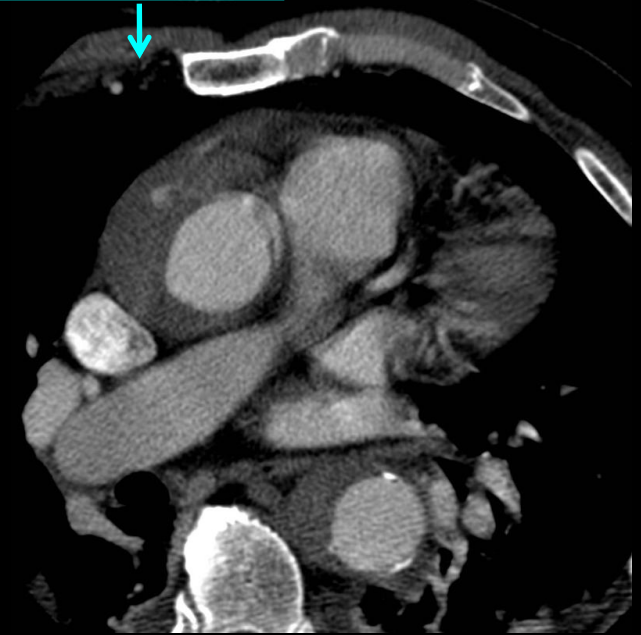




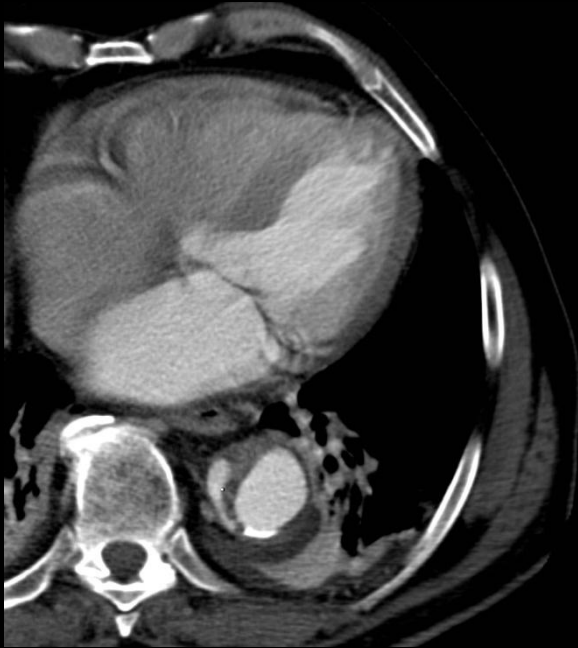
Même scanner mais deux passages différents



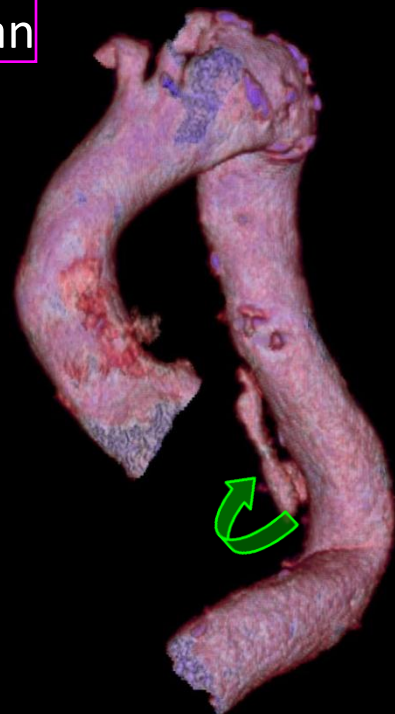
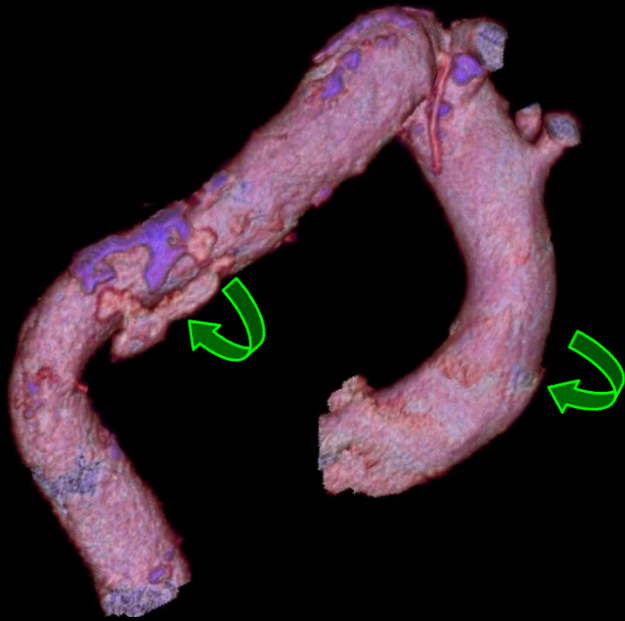
2<sup>ème</sup> scan



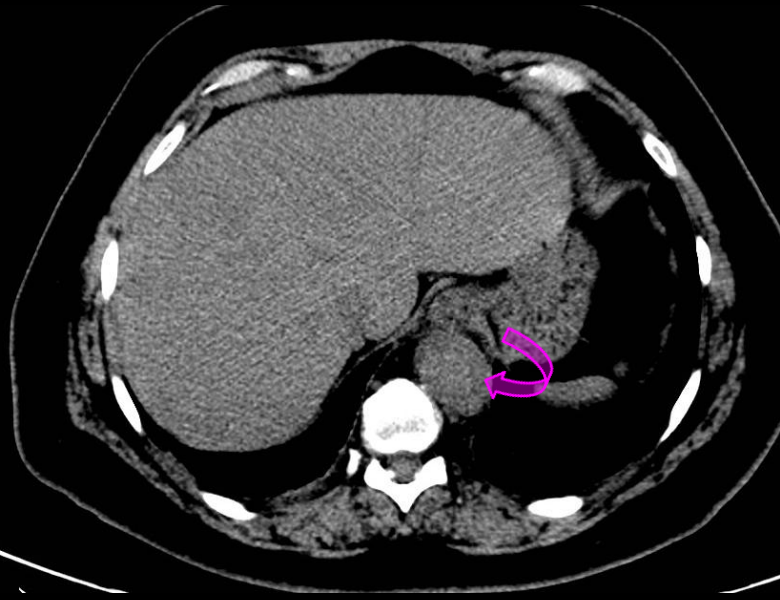
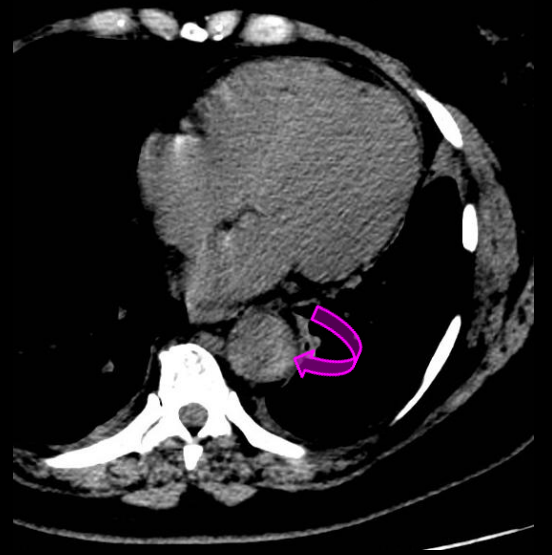
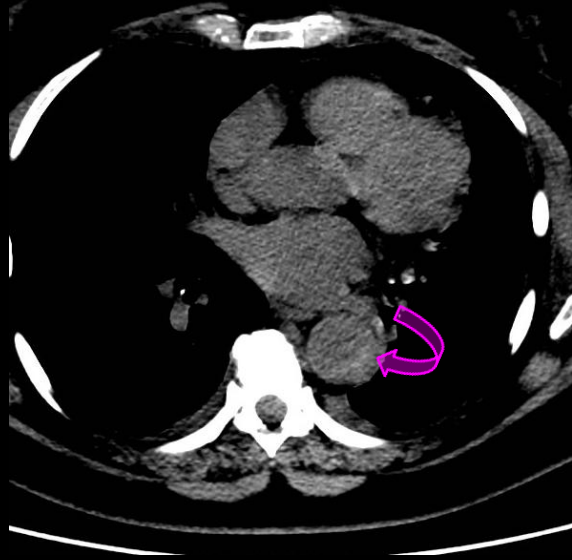
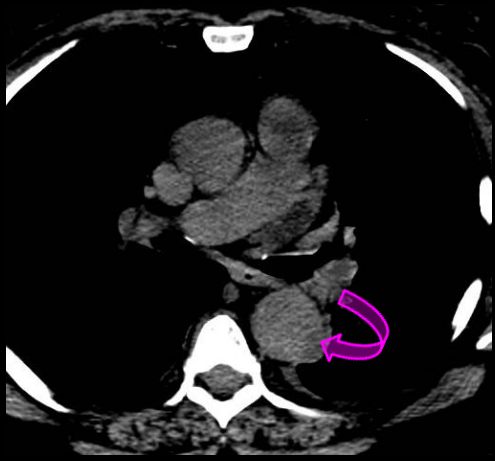
Cas n°12 :  
2010



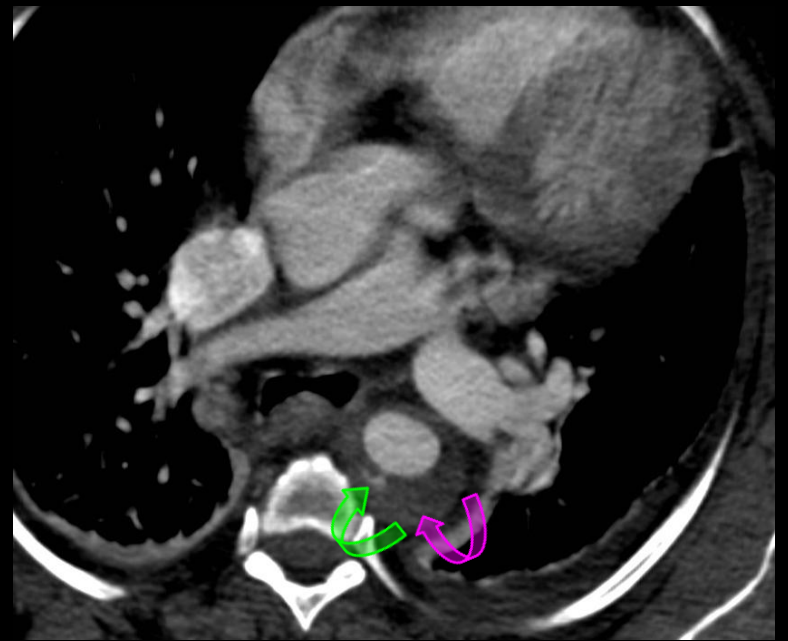
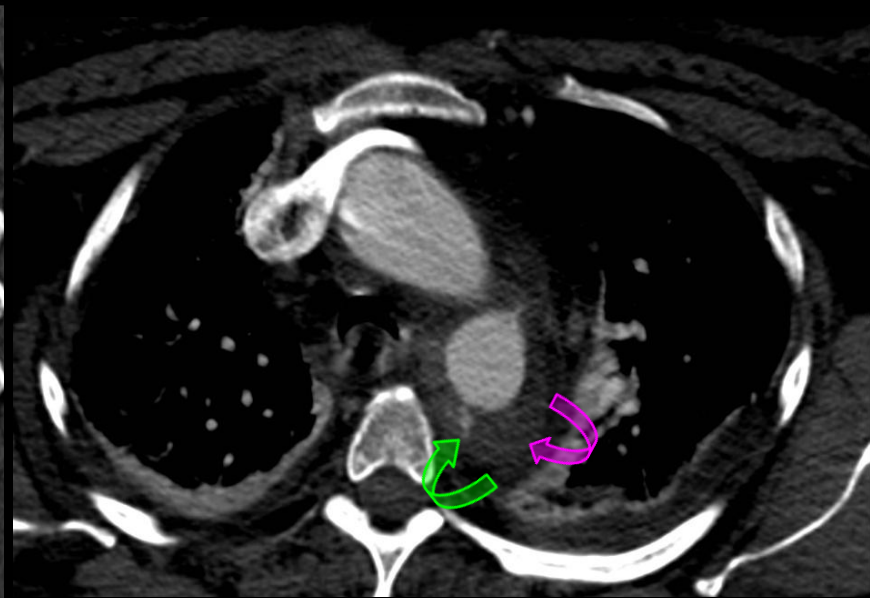
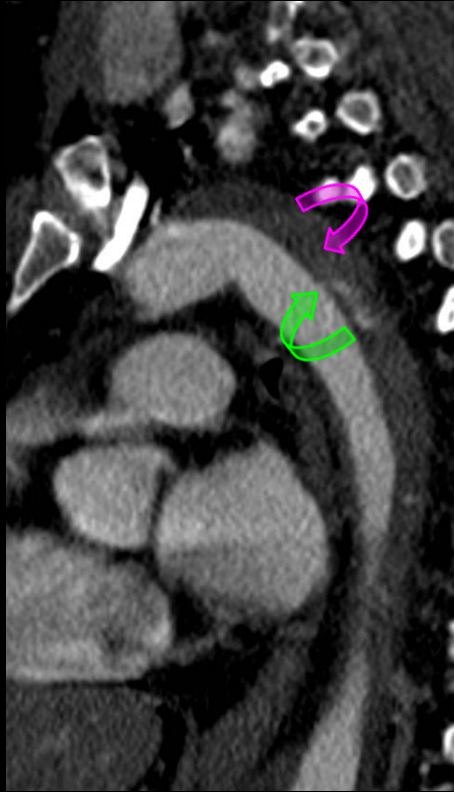
2<sup>ème</sup> scan



Cas n°12 :  
2010

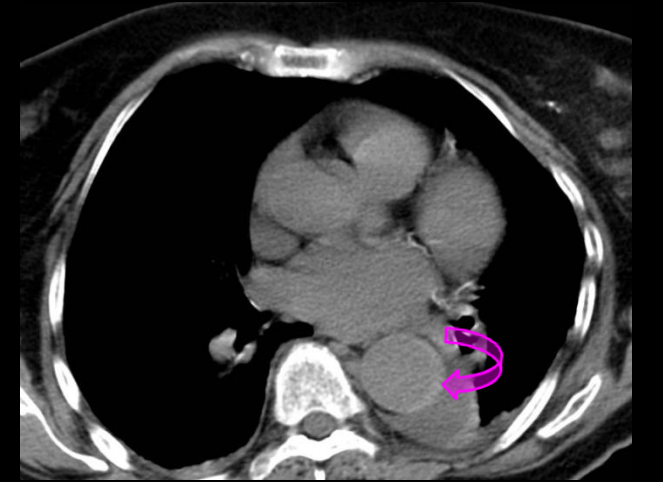
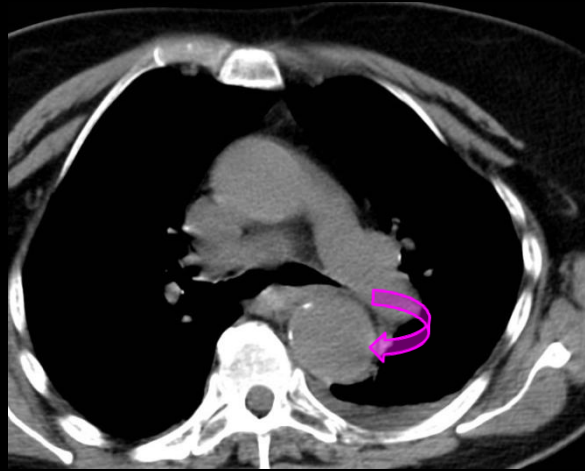
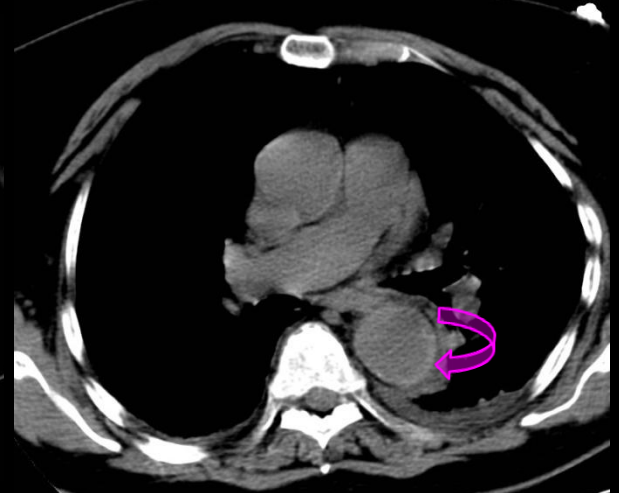
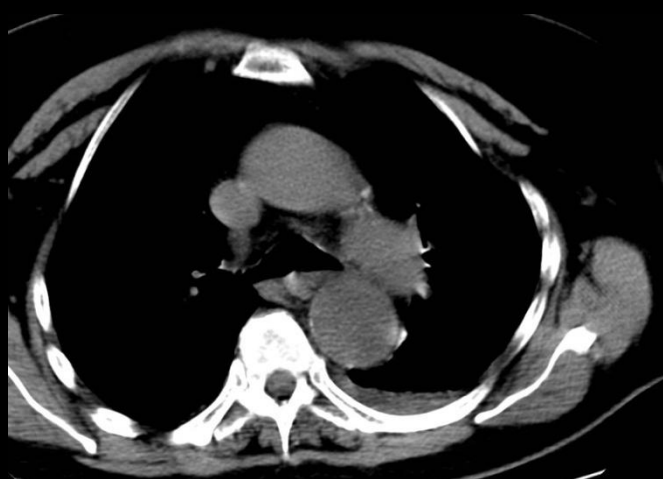


Cas n°13 : 2010

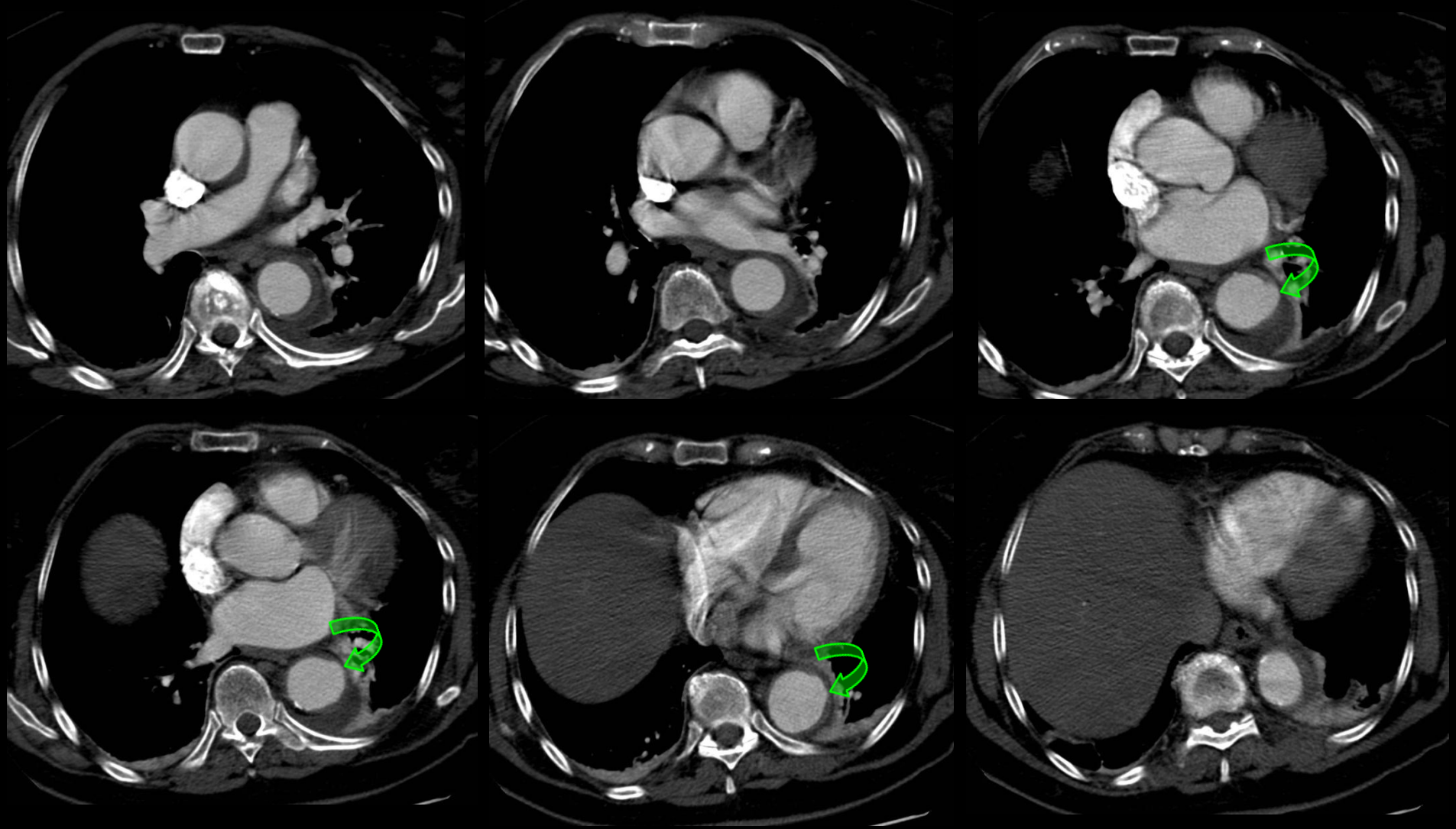


Pas vue

Cas n°13 : 2010

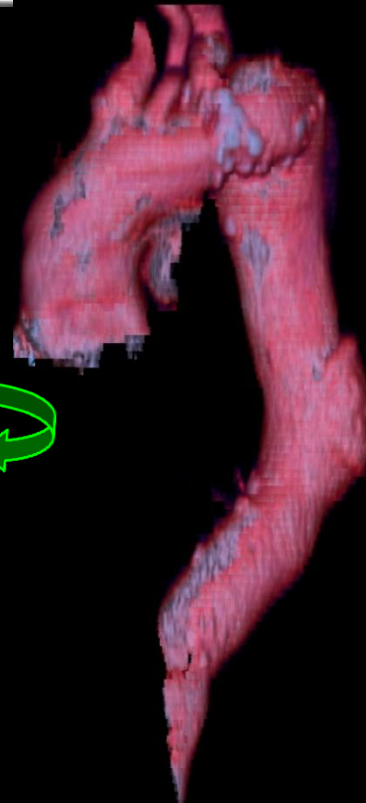
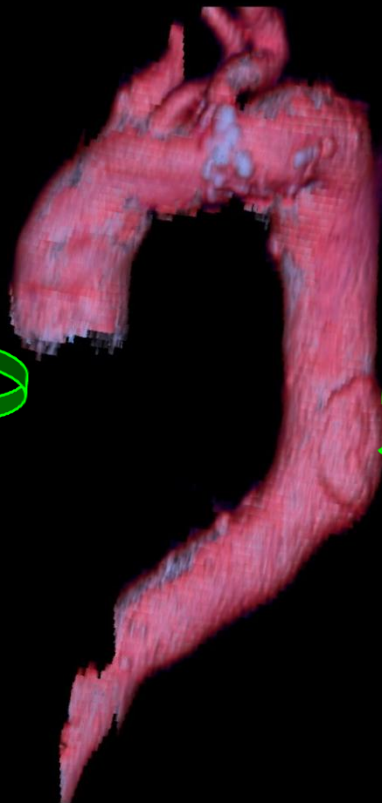
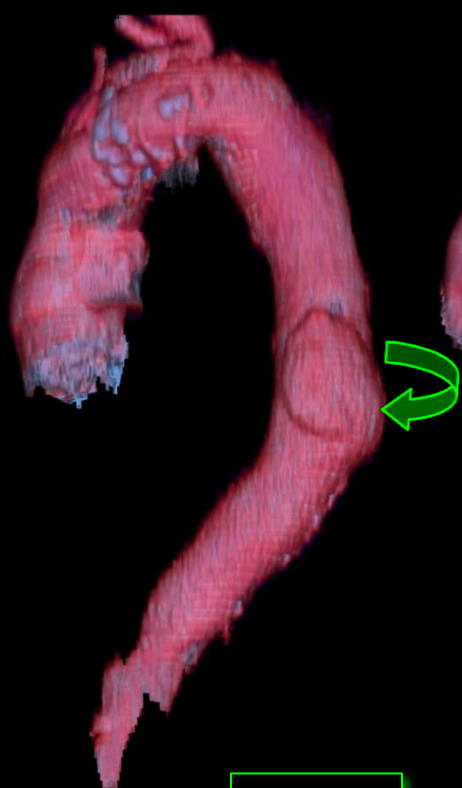
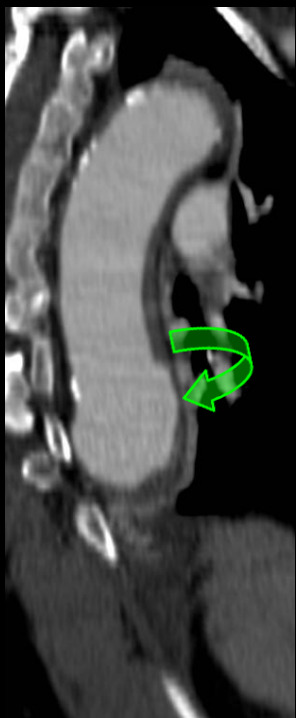
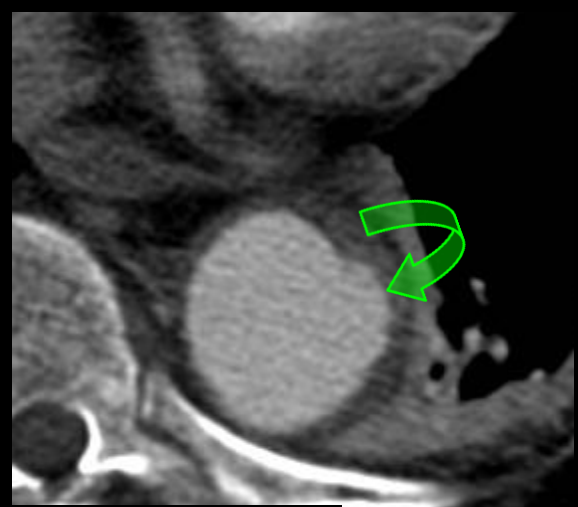
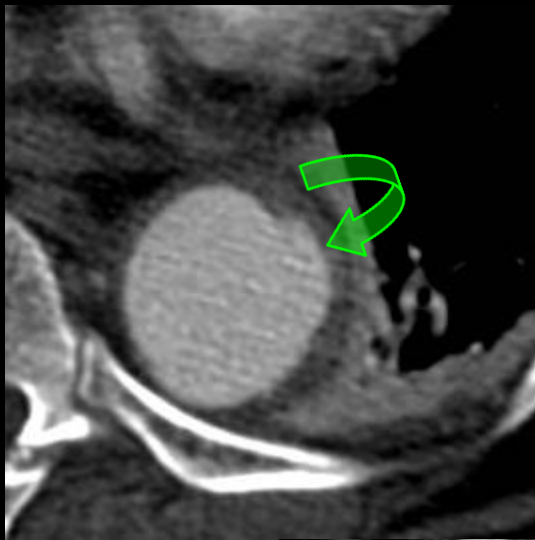


Cas n°14:  
2004



Cas n°14:

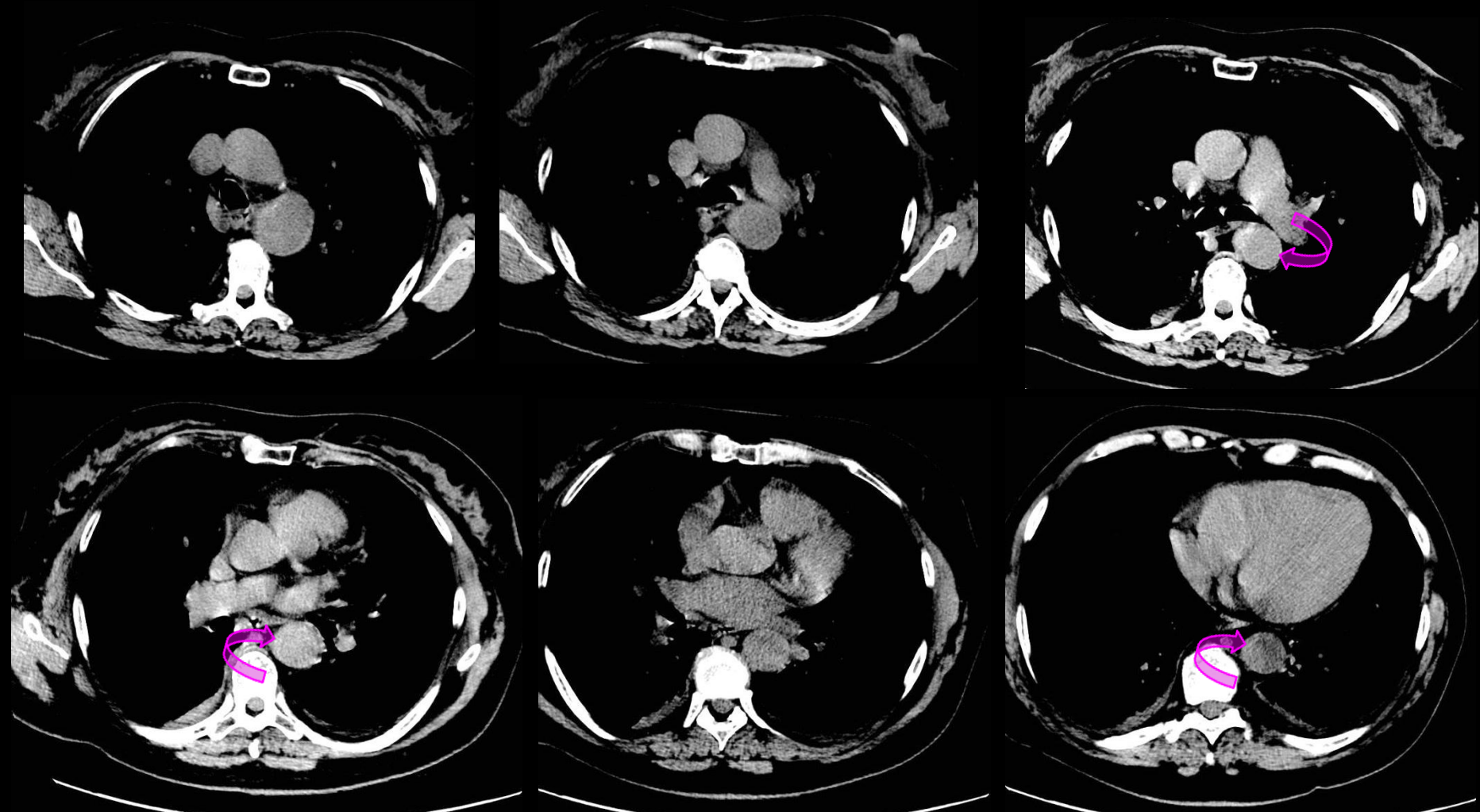
2004



Cas n°14: 2004

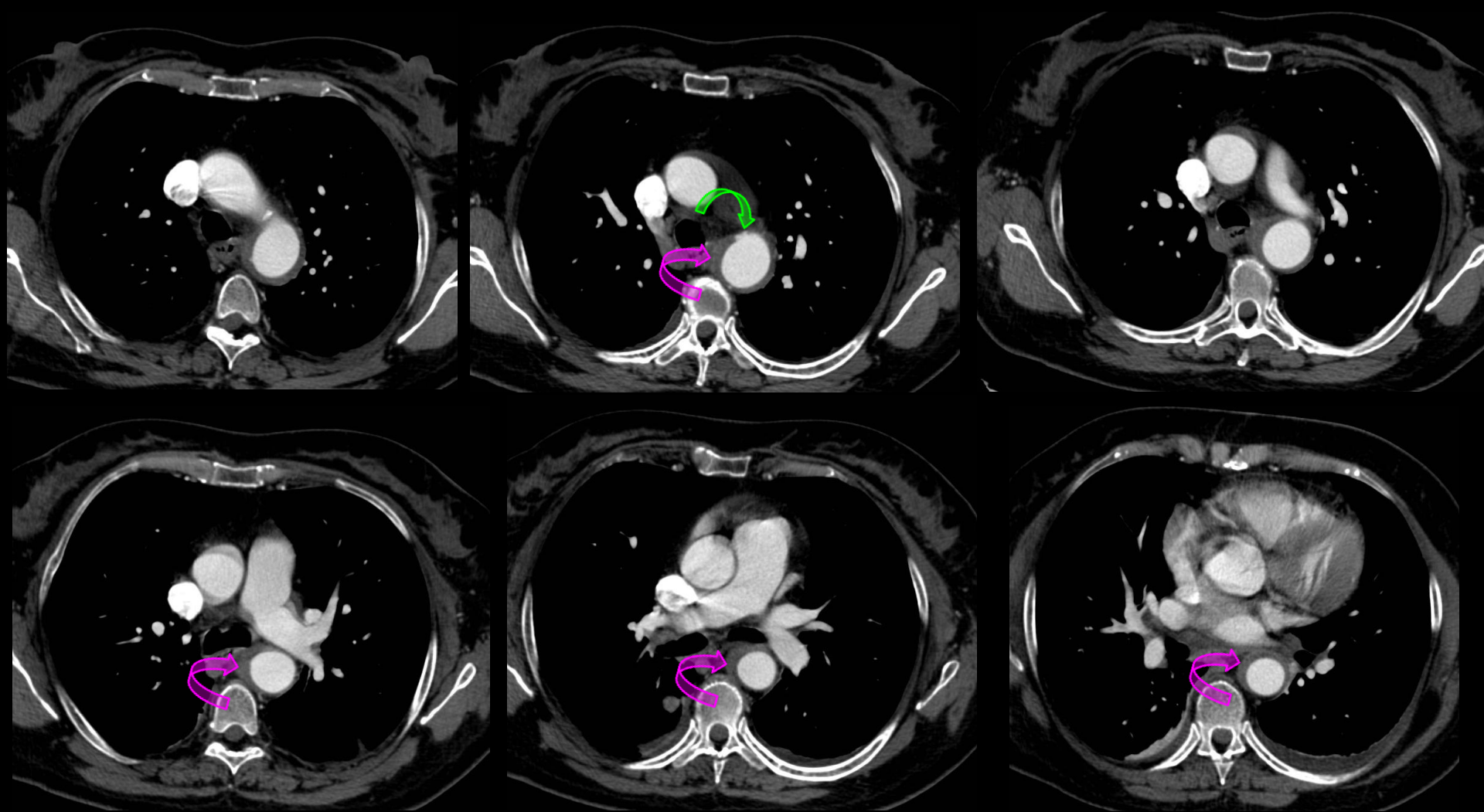
Pas vue

692 106

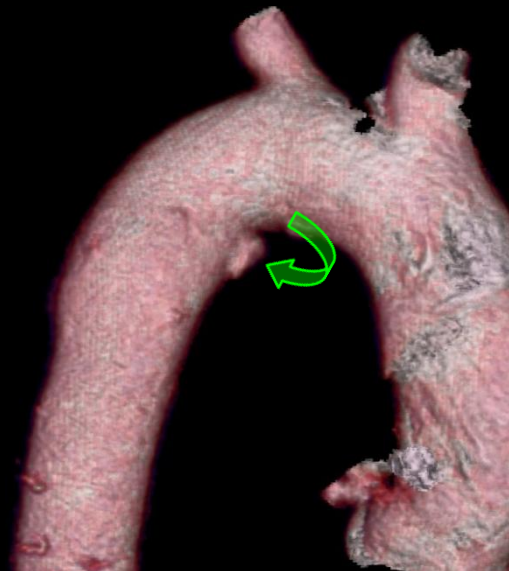
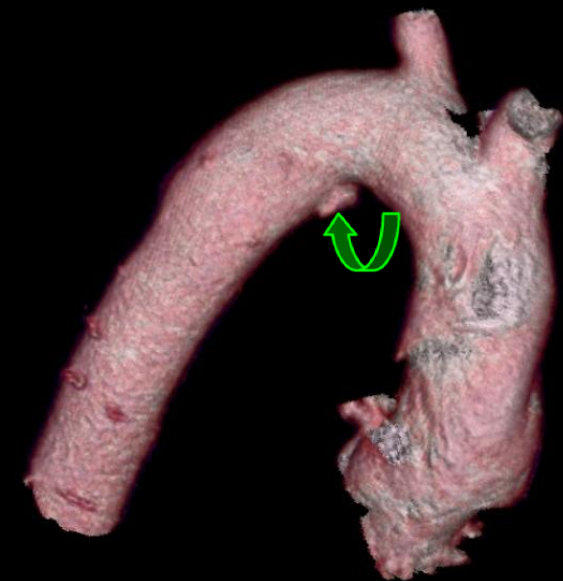
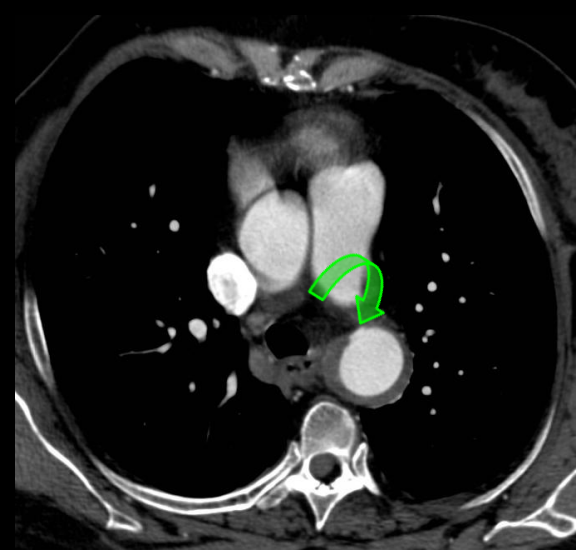


Cas n°15: 2008

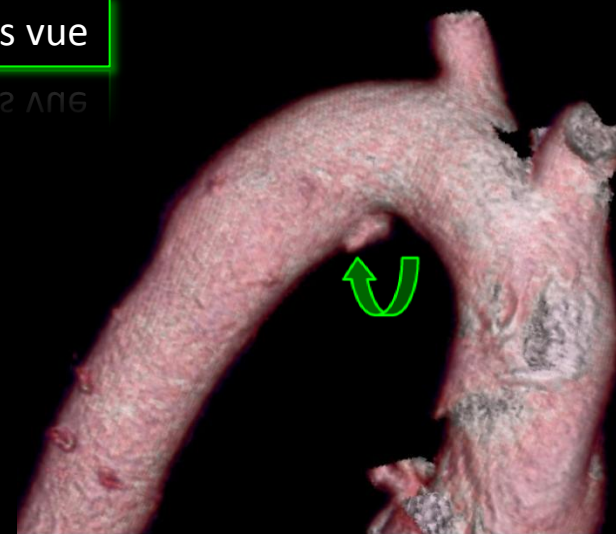




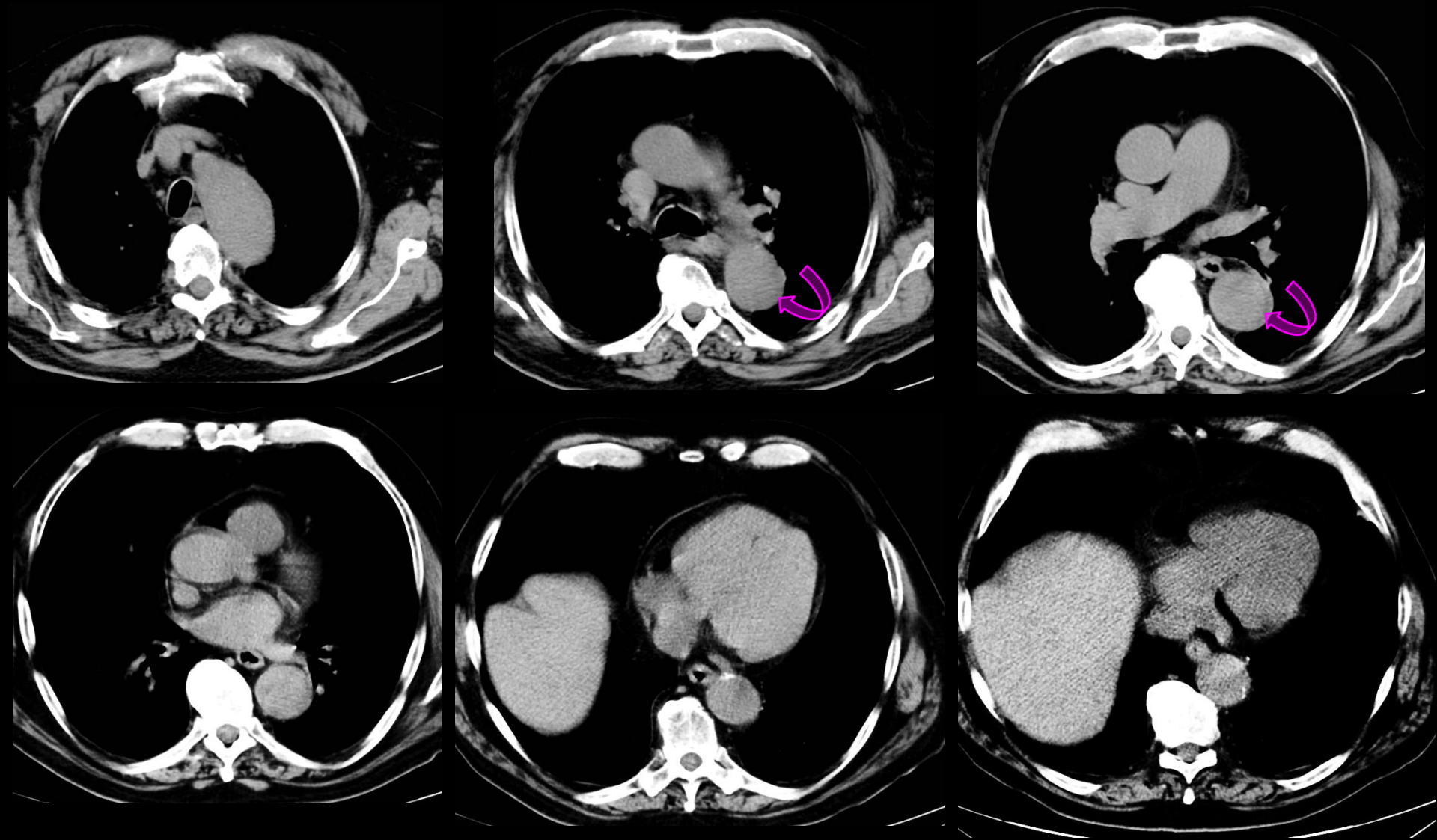
Cas n°15: 2008



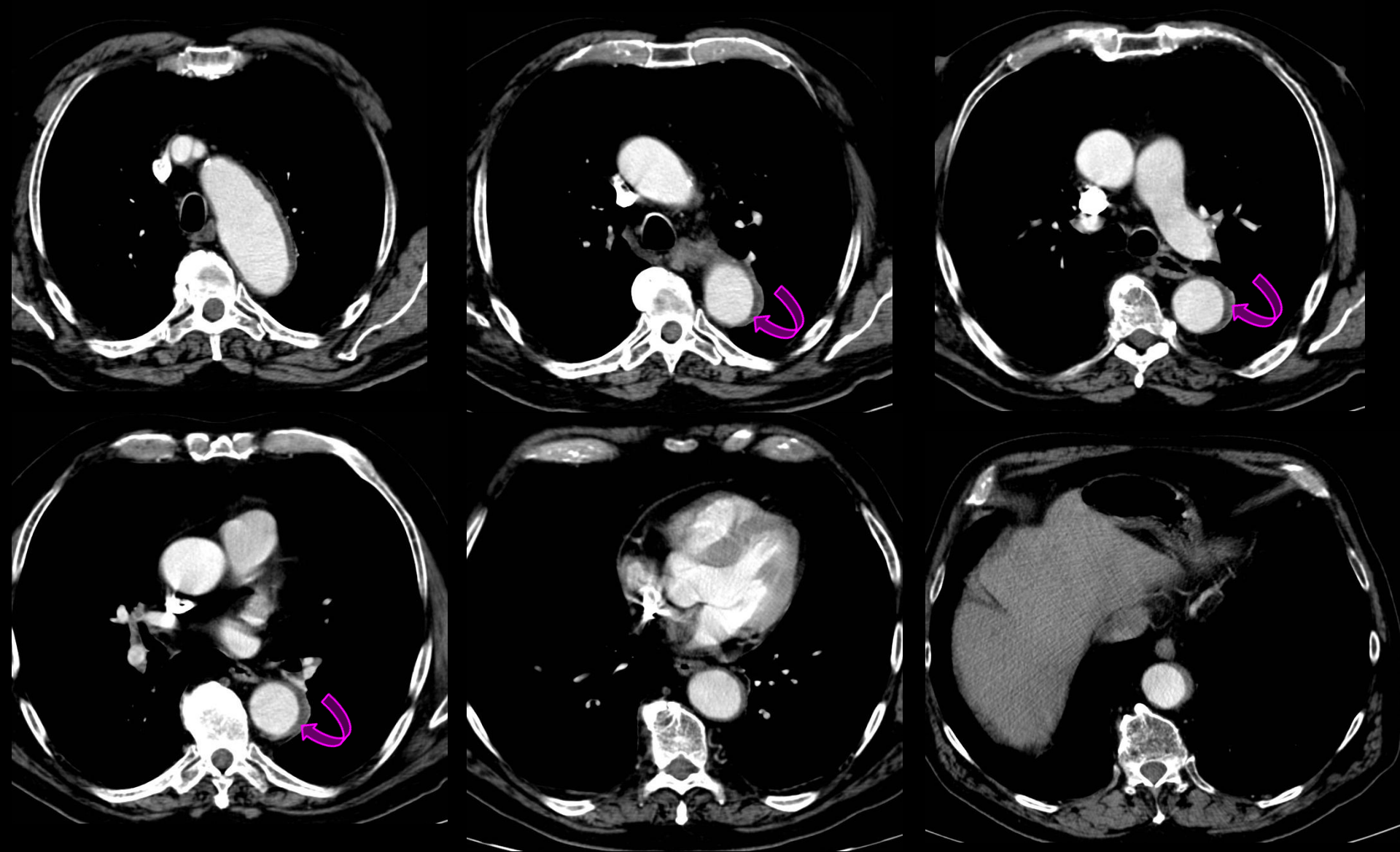
Pas vue  
Pas vue



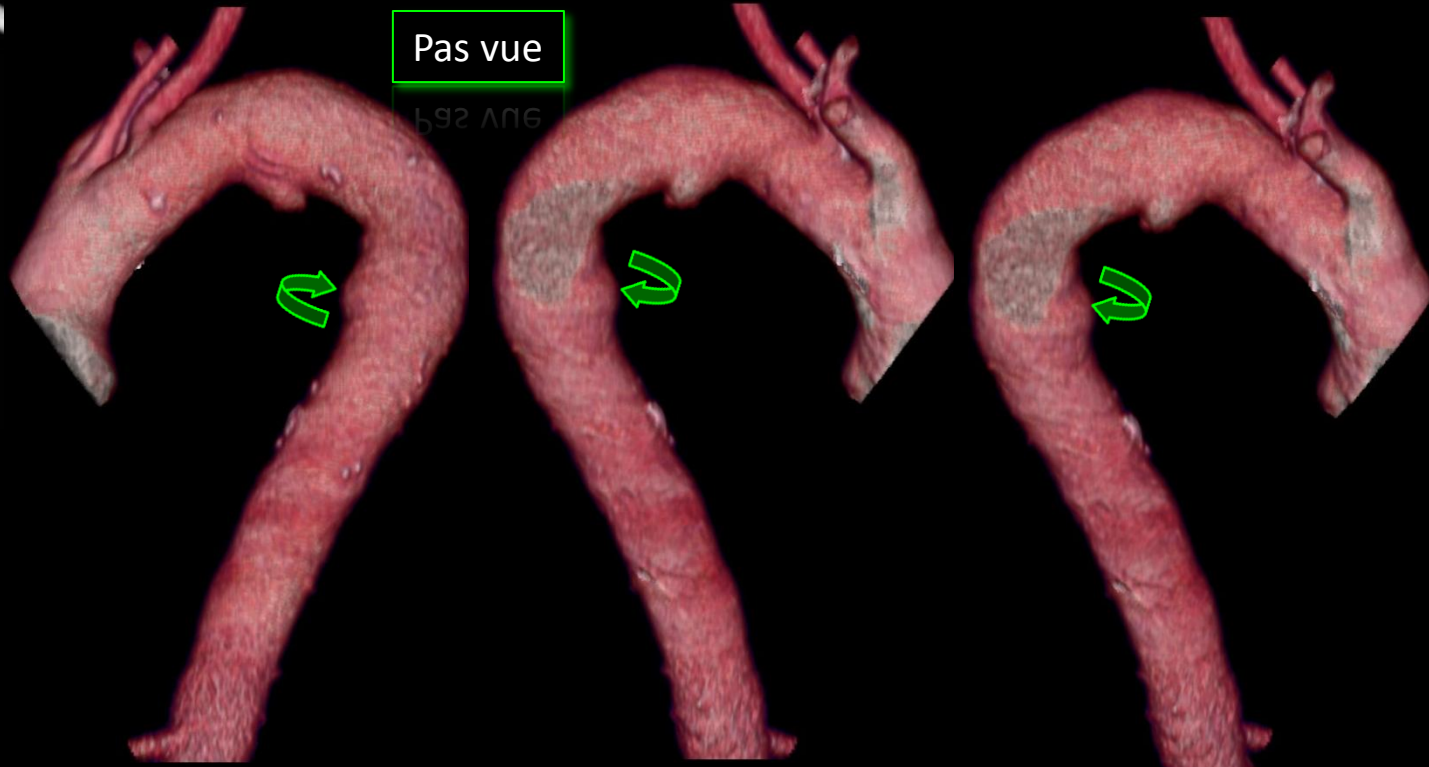
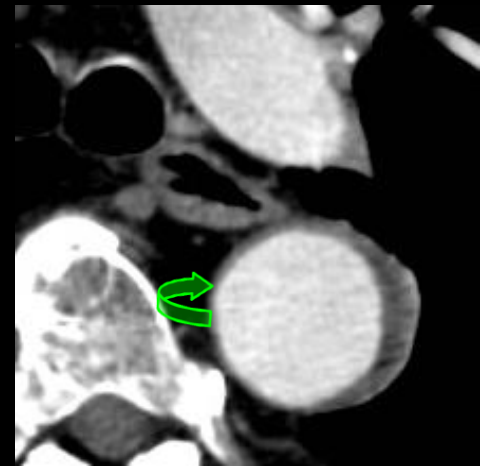
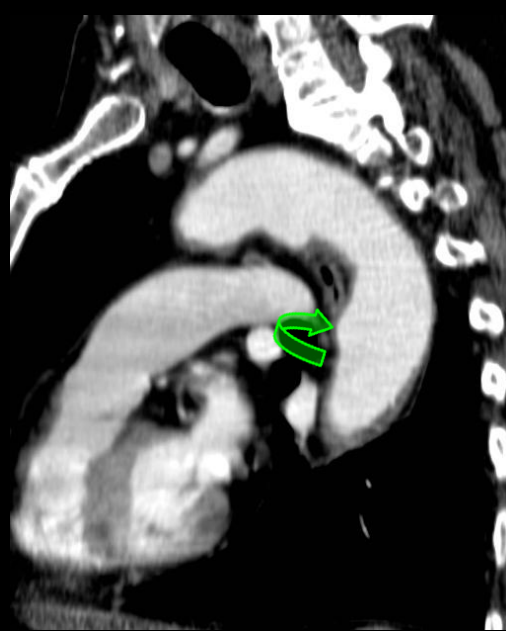
Cas n°15: 2008



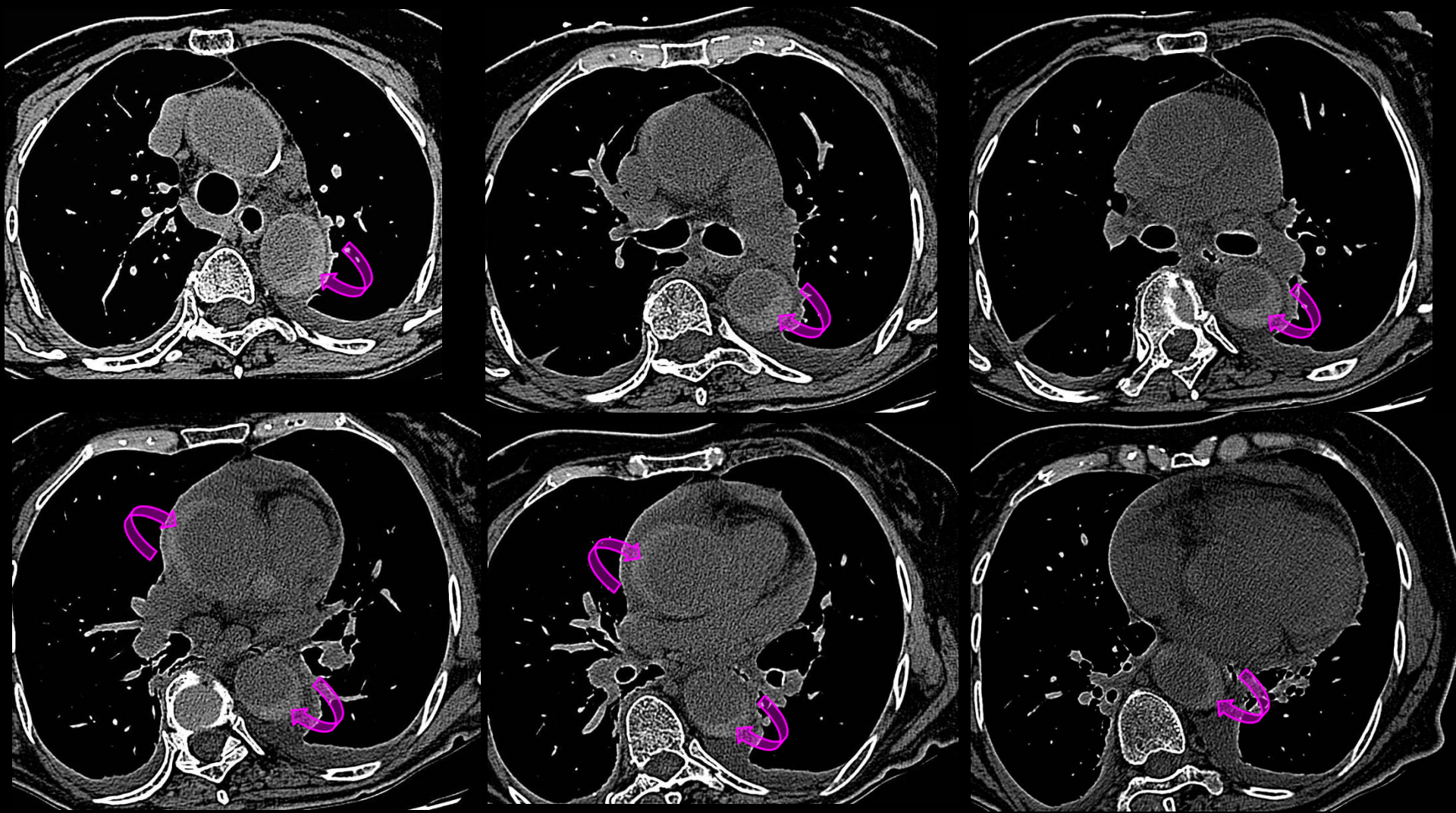
Cas n°16: 2004



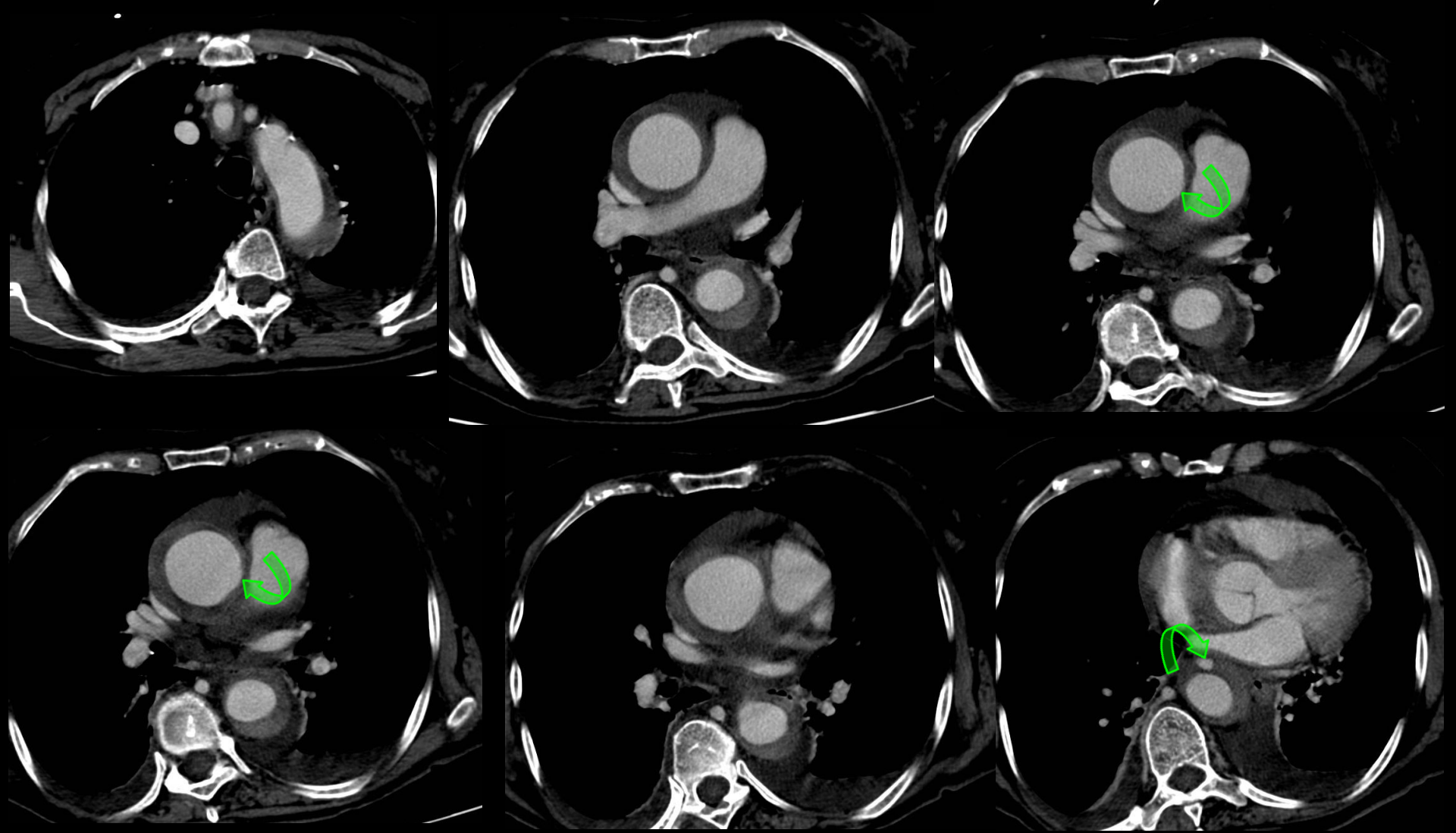
Cas n°16: 2004



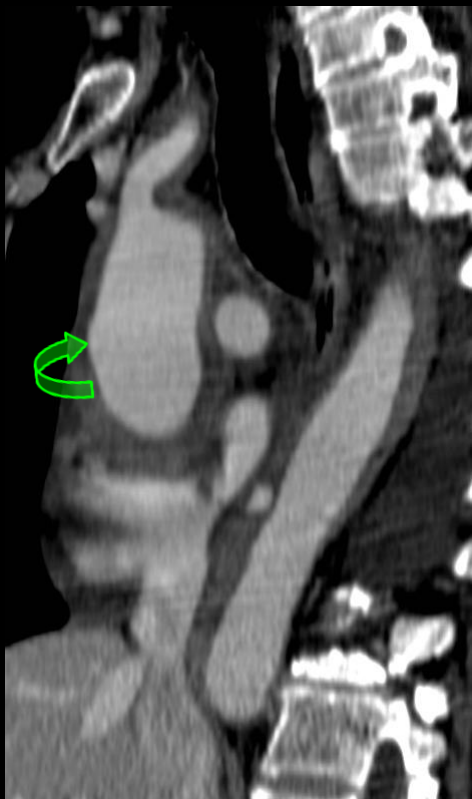
Cas n°16: 2004



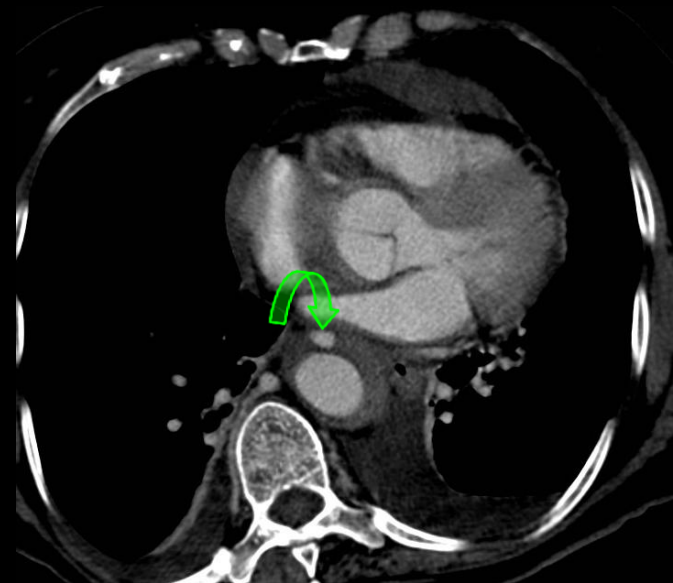
Cas n°17: 2004



Cas n°17: 2004

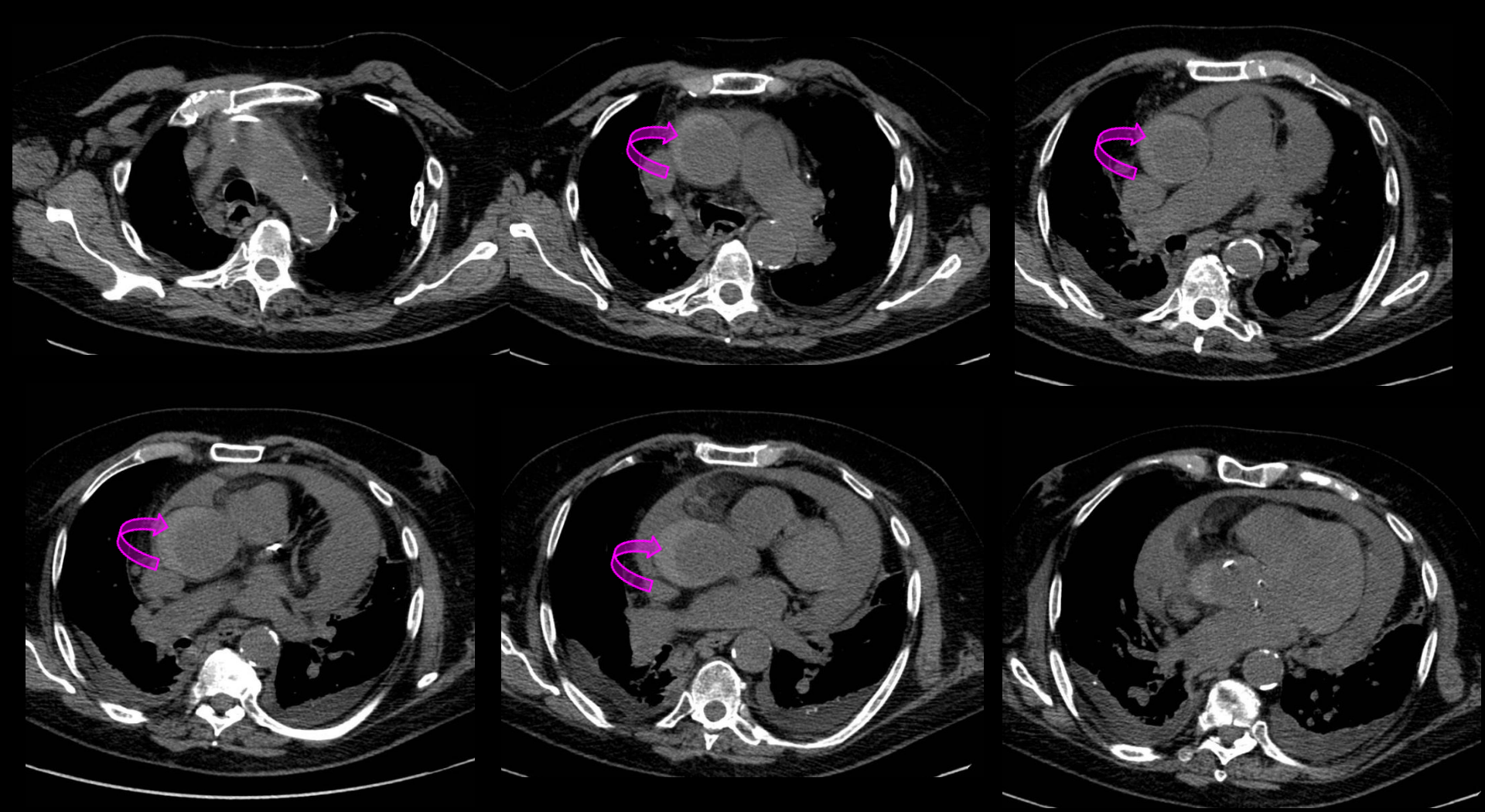


Pas vue

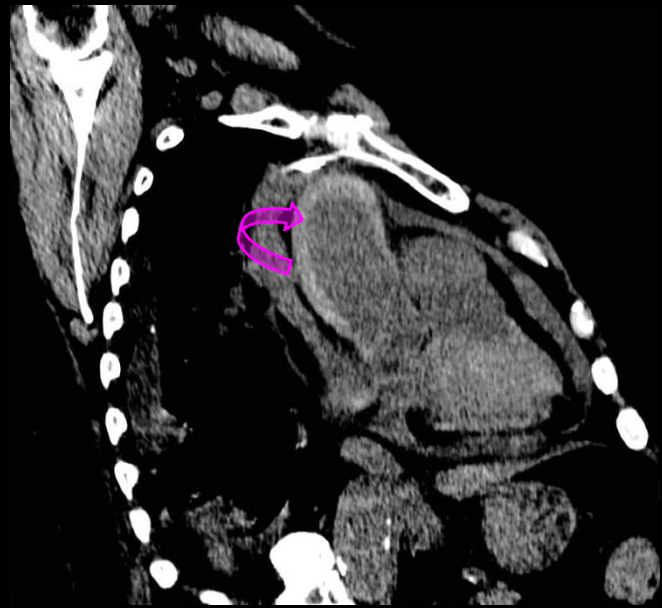
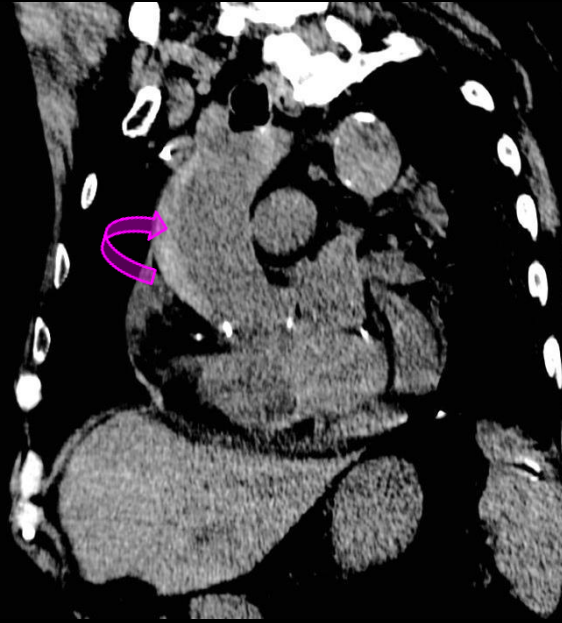
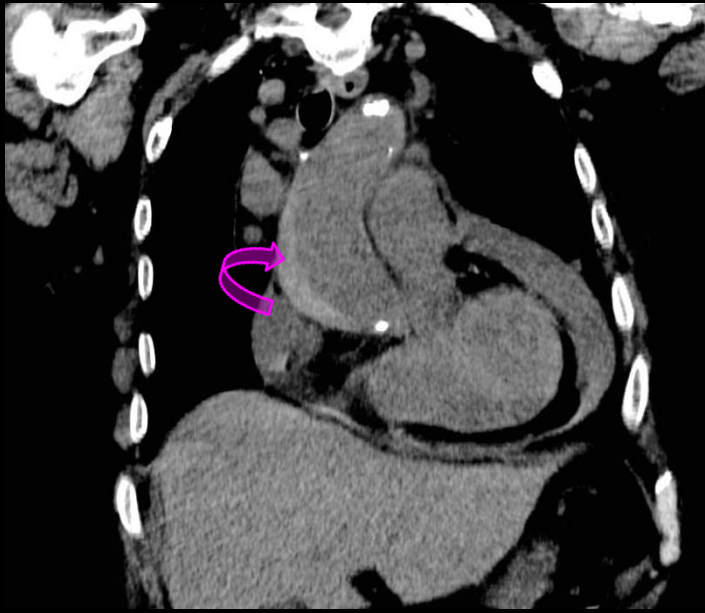


Cas n°17: 2004

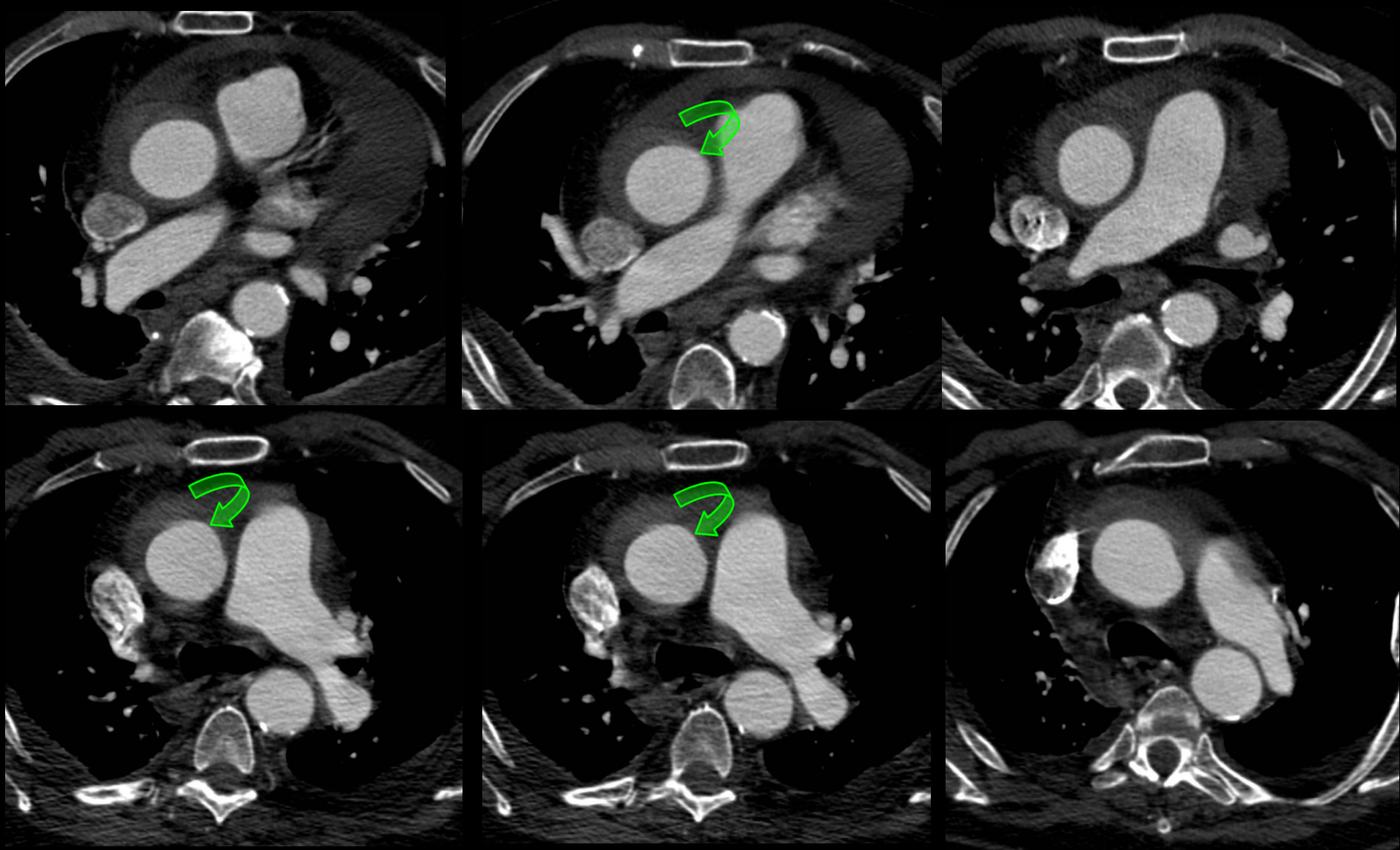




Cas n°18: 2009



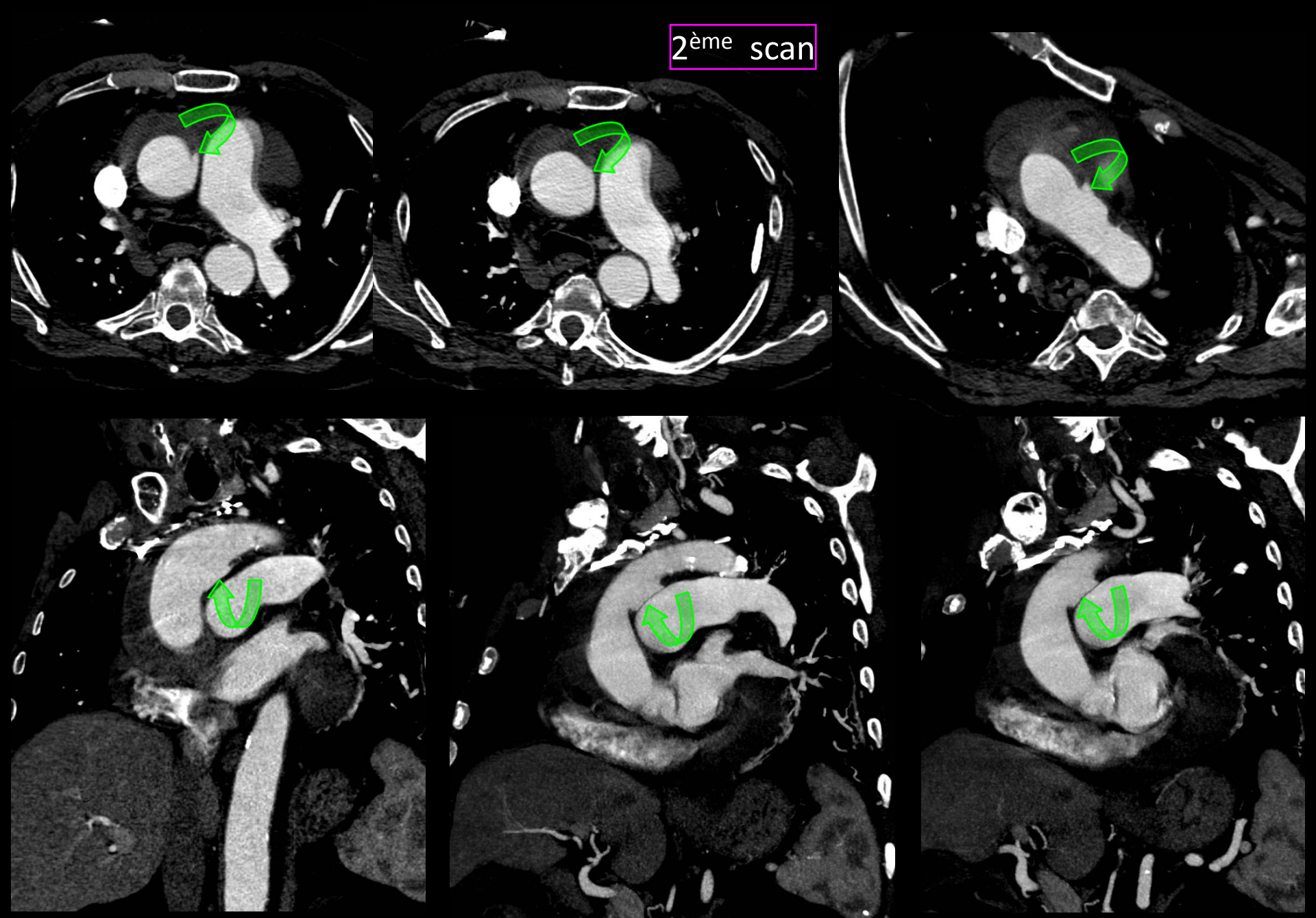
Cas n°18: 2009



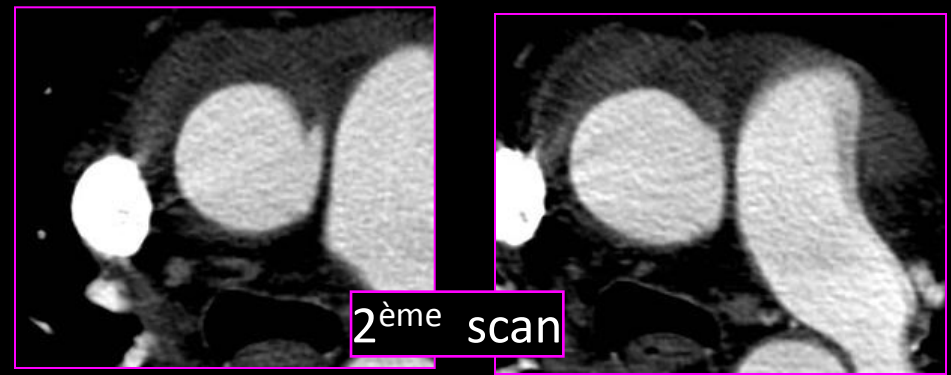
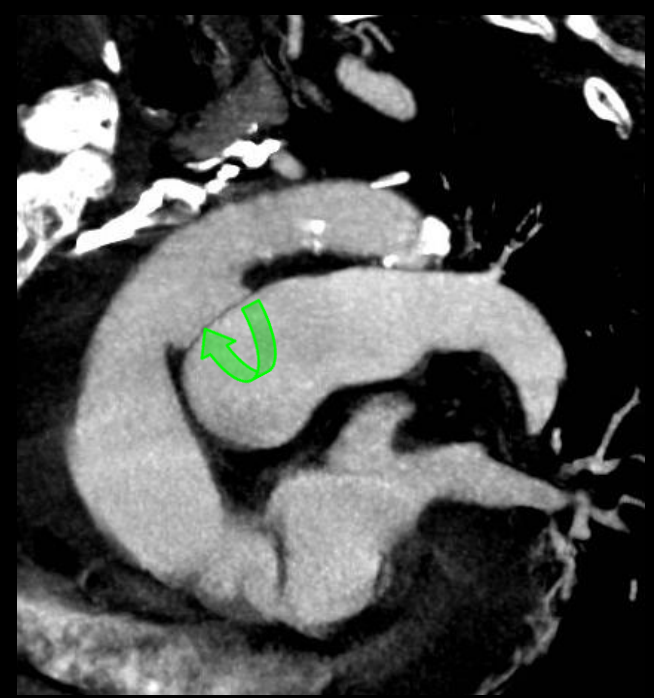
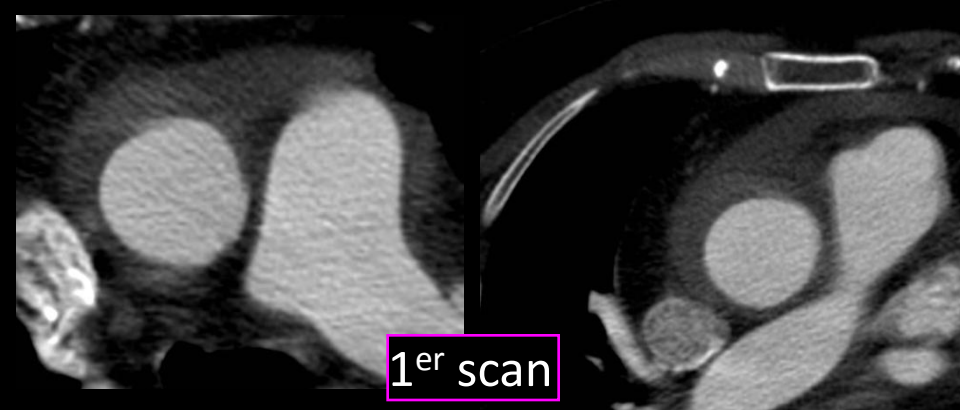
1<sup>er</sup> scan

Cas n°18: 2009

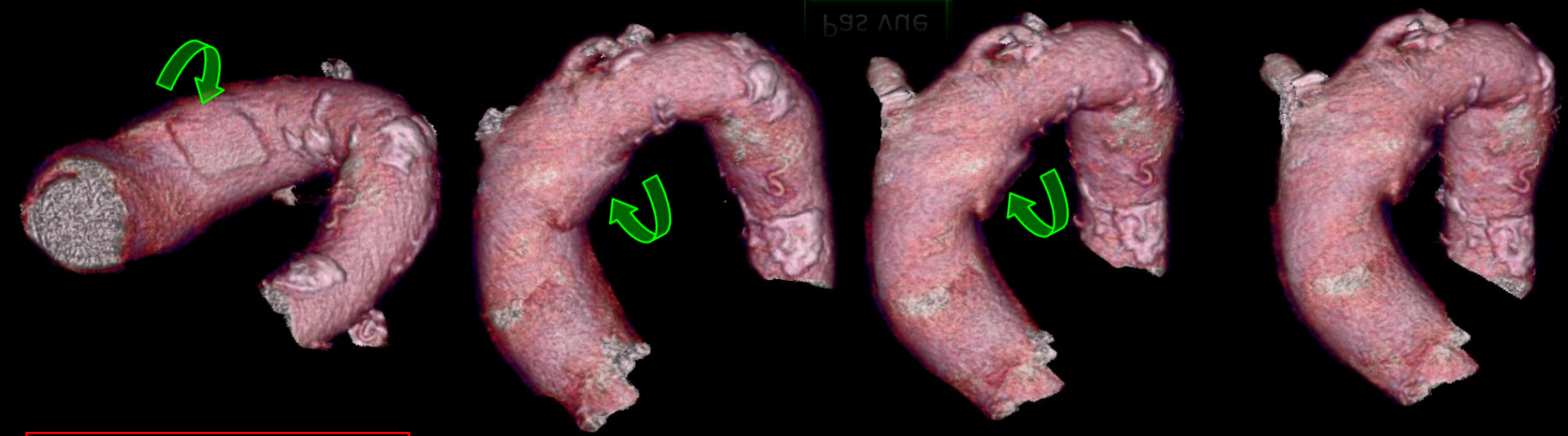
2<sup>ème</sup> scan



Cas n°18: 2009



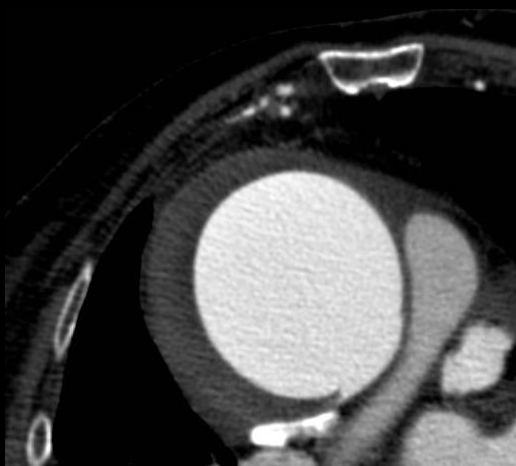
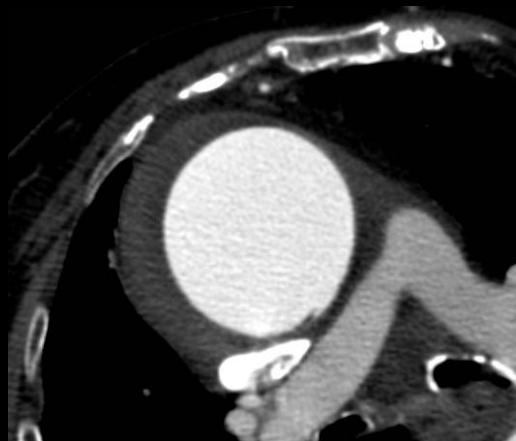
Pas vue  
pas vue



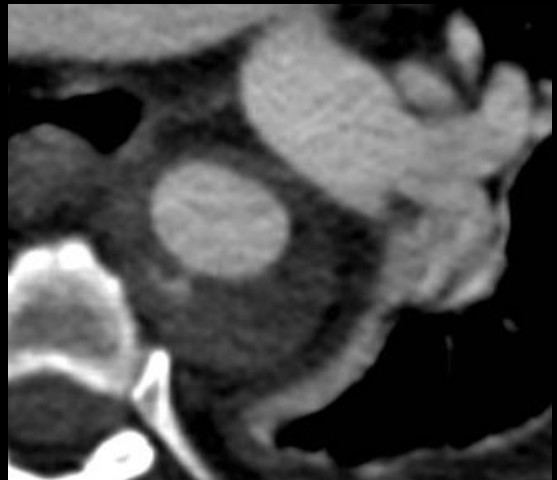
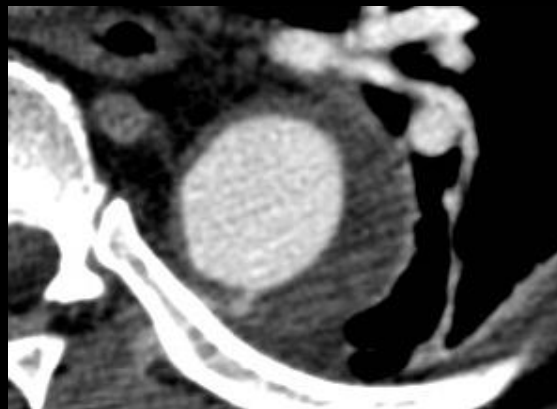
Cas n°18: 2009

Signes radiologiques typiques :

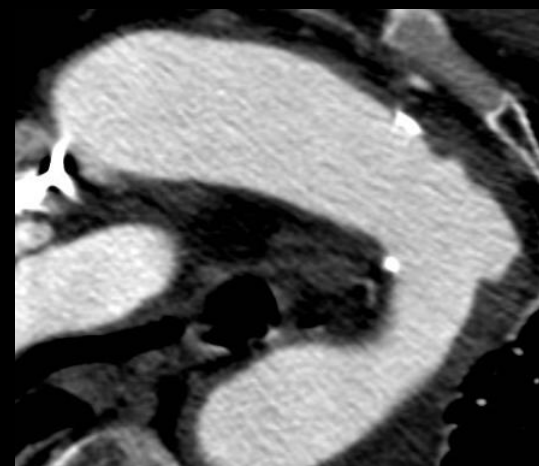
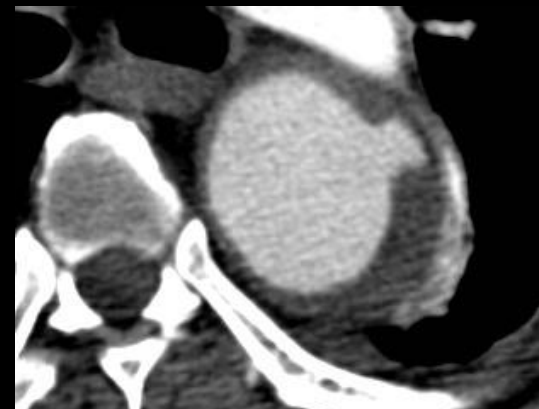
Fente intimo-médiale



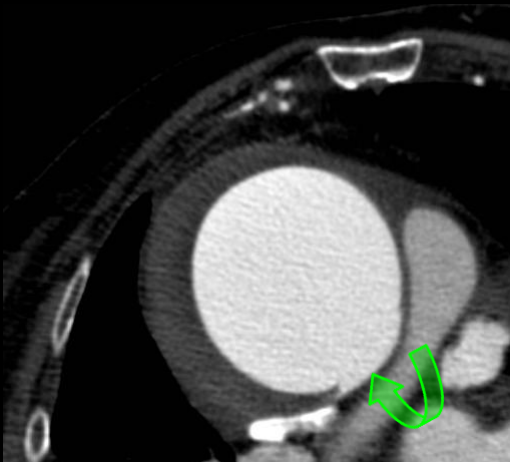
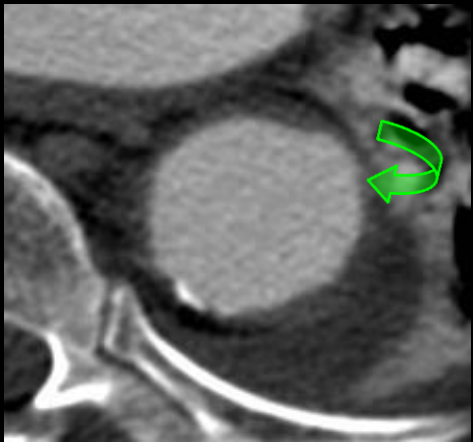
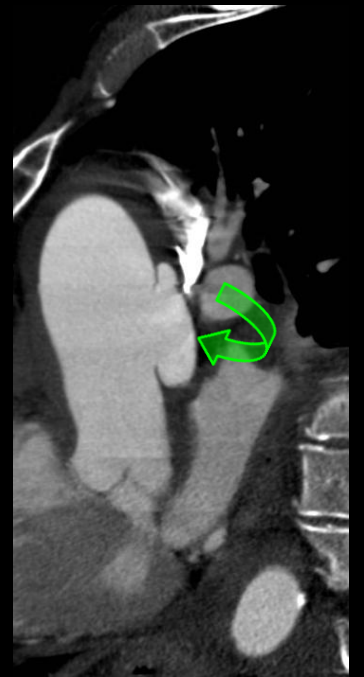
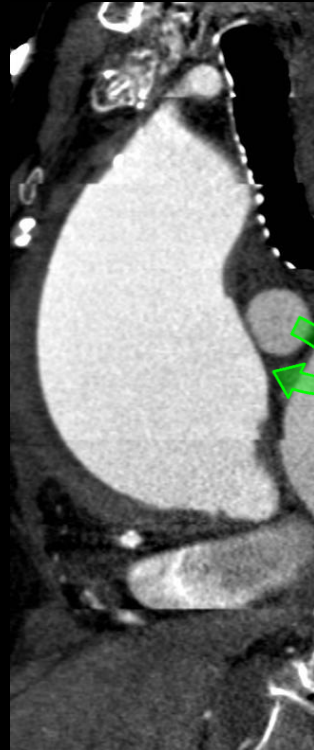
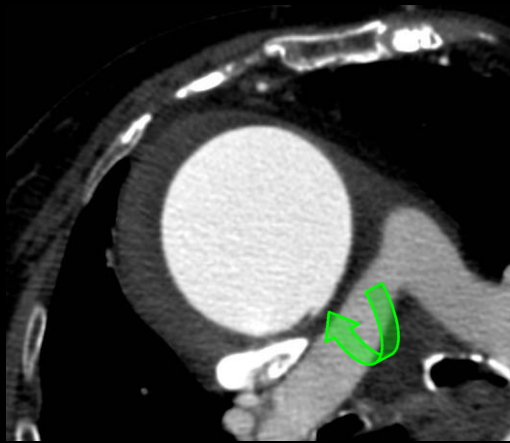
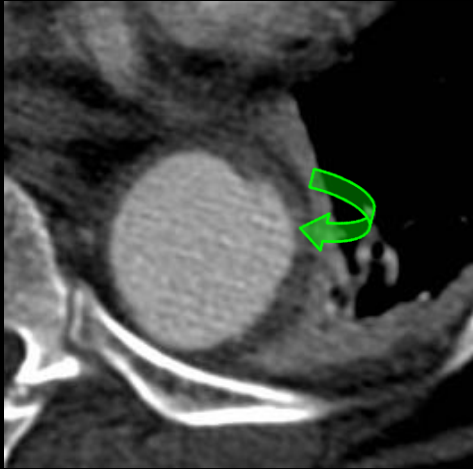
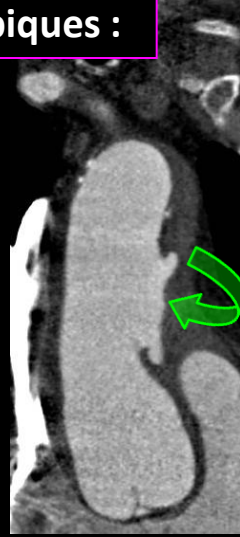
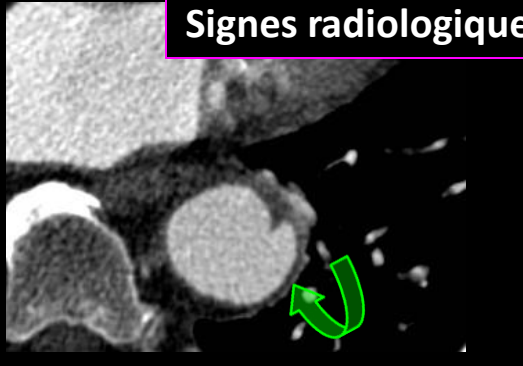
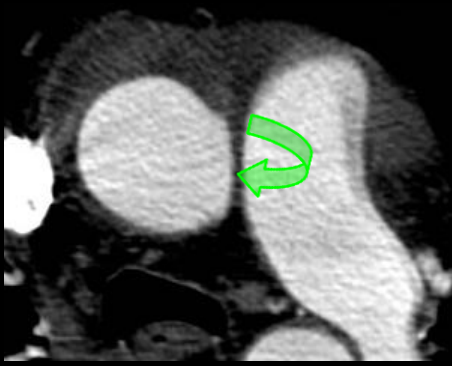
Arrachement d'ostium



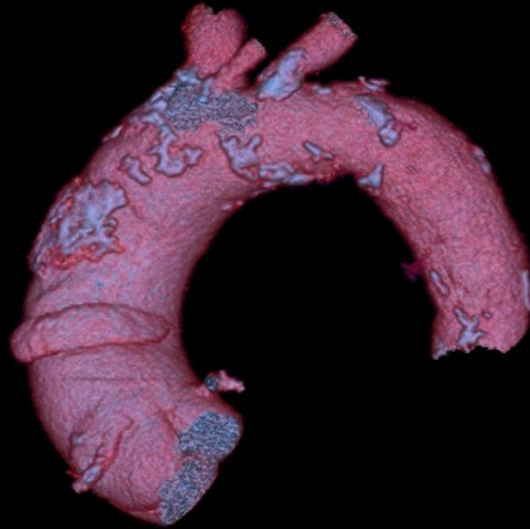
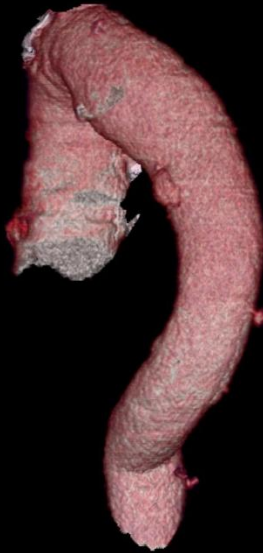
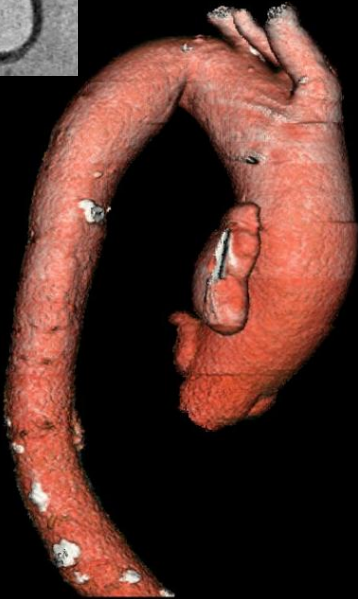
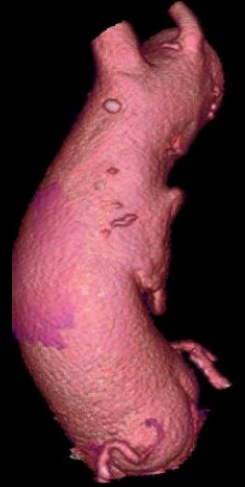
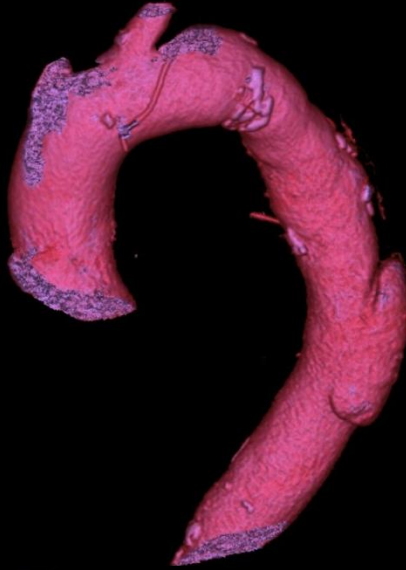
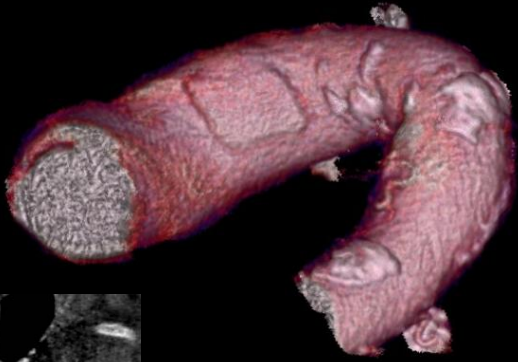
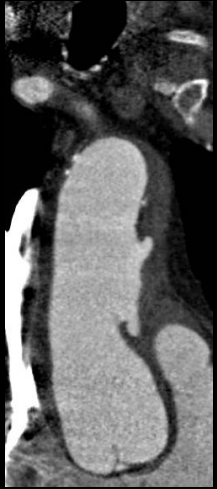
Ulcère



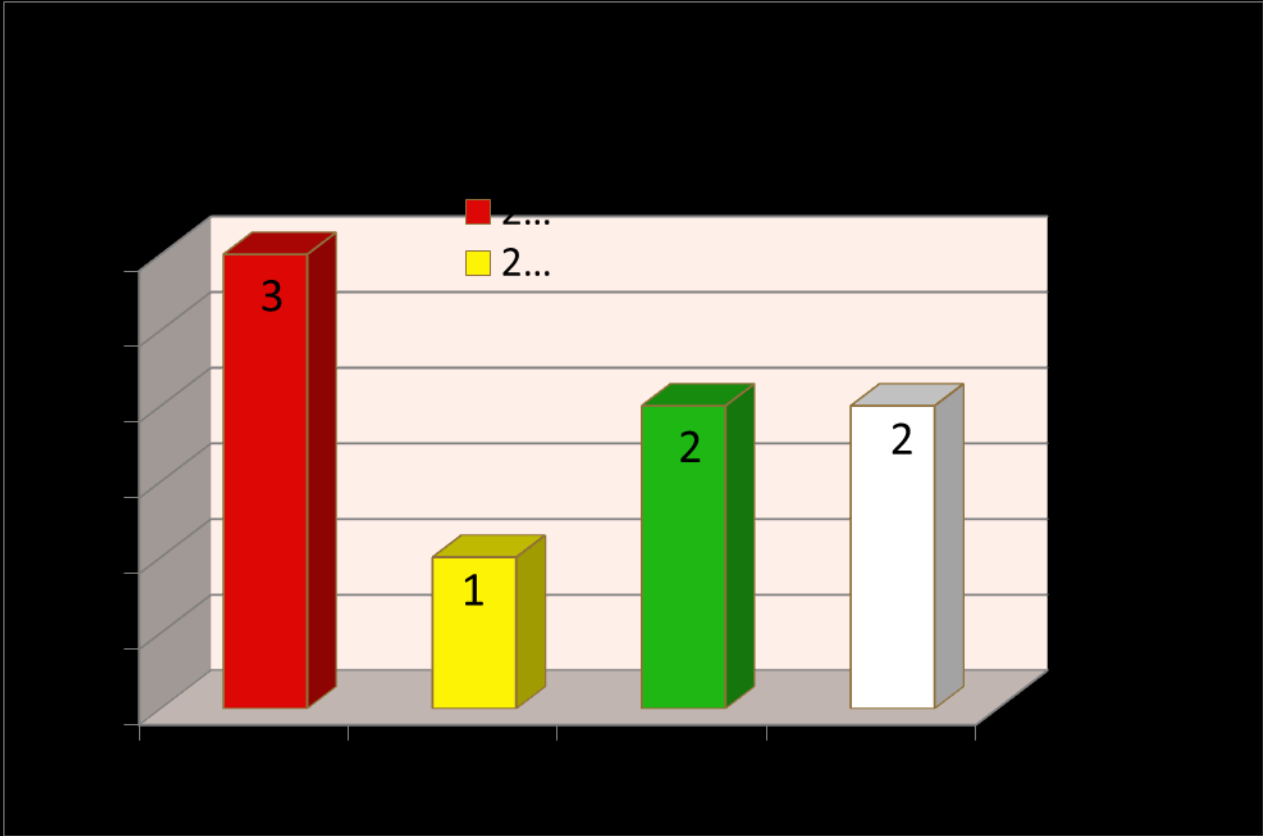
Signes radiologiques typiques :



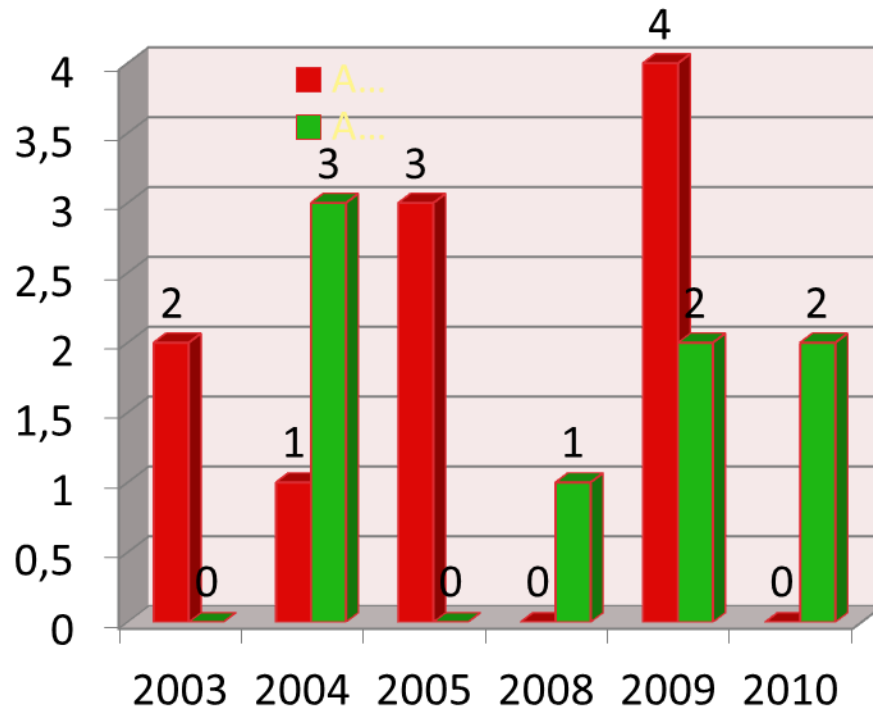
Signes radiologiques typiques :







### Evolution au cours du temps du diagnostic de la porte d'entrée des hématomes intra-muraux

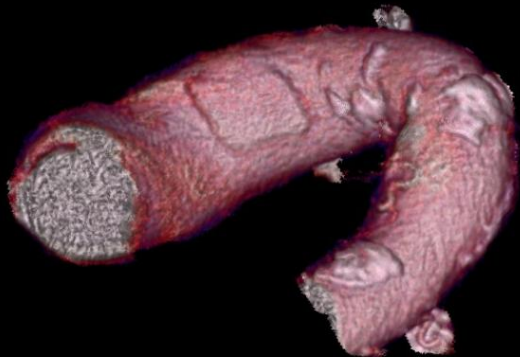
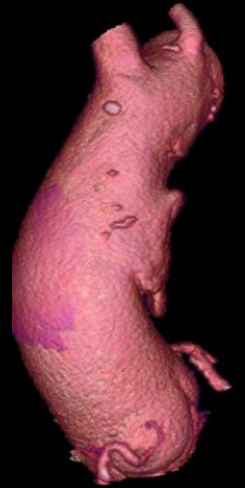


**Est ce que cela change quelque chose ...?**

**Oriente mieux le traitement notamment pour les atteinte de l'aorte descendante (prothèse)**

**Diagnostic de précision : rapport distance avec les coronaires...**

**CREDIBILITE auprès de l'équipe chirurgicale**



## En conclusion

Les portes d'entrées existent bien pour les hématomes intra-muraux...

4 signes radiologiques : fente intimo-médiale / ulcère /  
arrachement d'ostium / indéterminé

Sur 18 dossiers, la porte d'entrée n'a pas été diagnostiquée dans 8 cas  
*alors que présente a posteriori*

Dans notre série Il existe une porte d'entrée décelable  
dans 18 / 19 cas

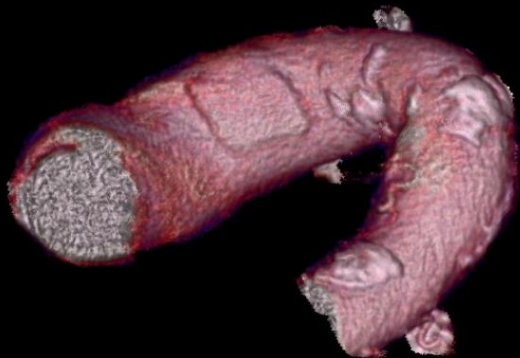
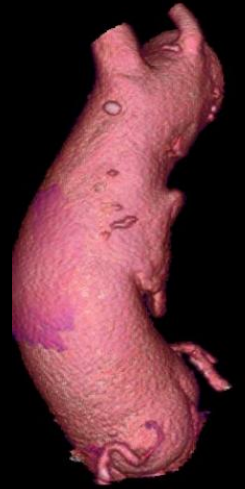
La bonne terminologie n'a été utilisée que 2/10 parmi  
les patients chez lesquels avait été diagnostiqué une anomalie

Utiliser comme terme : « porte d'entrée »,  
« flap intimal » ou « fente intimo-médiale »

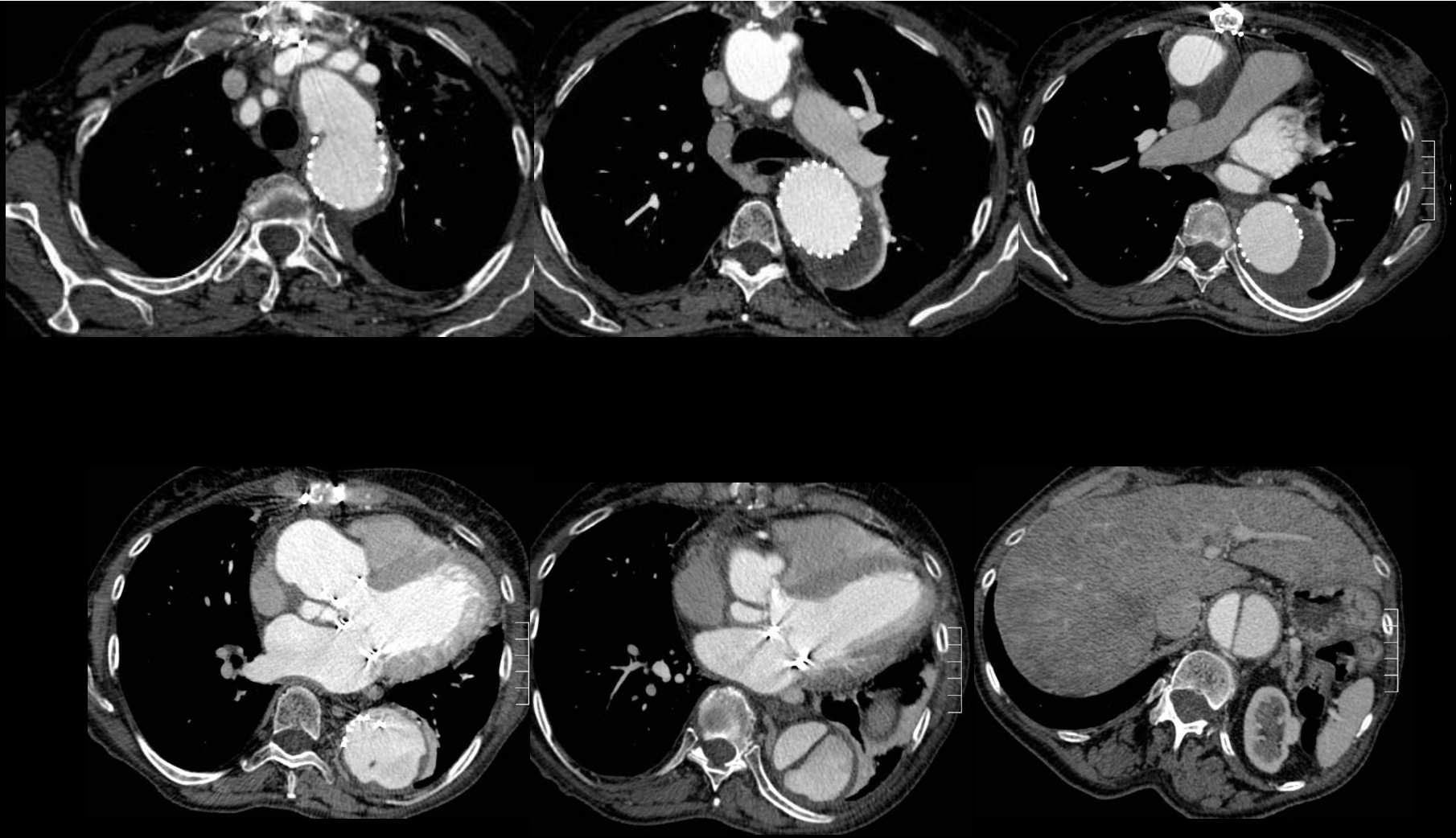
Toujours réaliser un gating cardiaque

Toujours réaliser des reformations  
MPR et VR +++

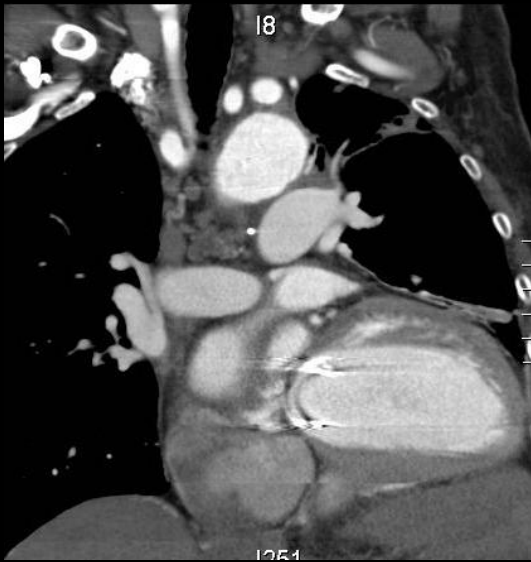
MERCI



Contrôle d'une dissection de l'aorte thoracique traitée chirurgicalement, chez une femme de 74 ans



Marion GRANDHAYE



# Principales techniques chirurgicales de l'aorte thoracique

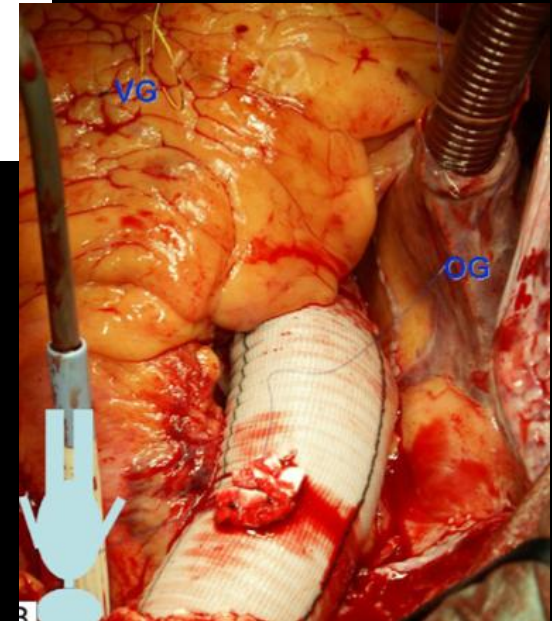
## Objectif

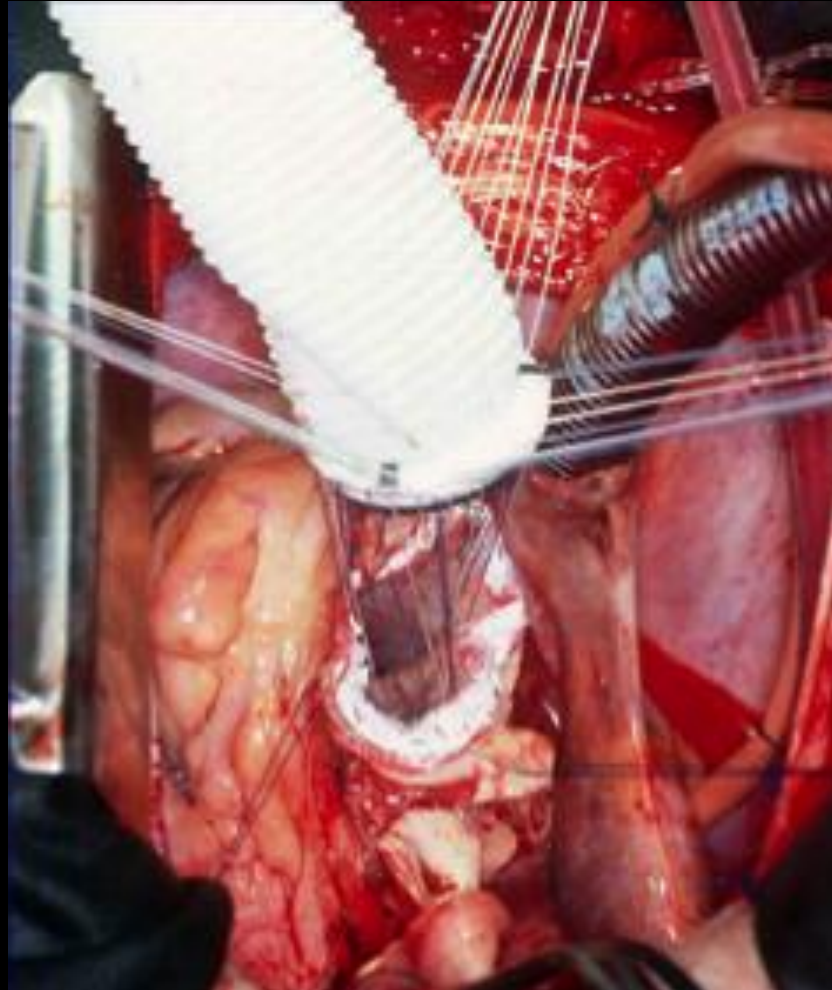
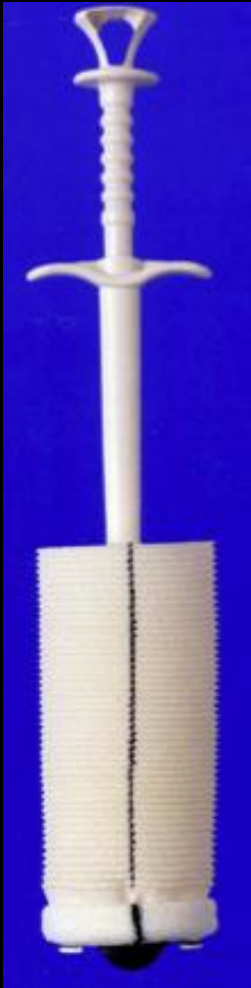
Réaliser la réparation la plus **complète**  
et la plus **stable dans le temps**  
Souvent impossible de remplacer  
l'ensemble de l'aorte atteinte :  
**traitement palliatif**

## Anastomose proximale

## Prothèse aorto-aortique

La plus simple  
Conserve la valve aortique  
Ne touche pas aux coronaires





Dès 1968 ...  
**Intervention de Bentall**

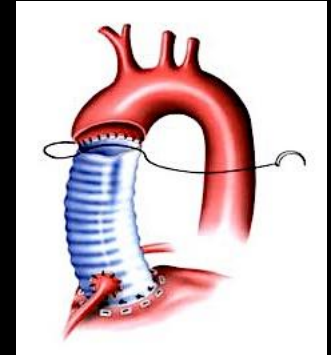
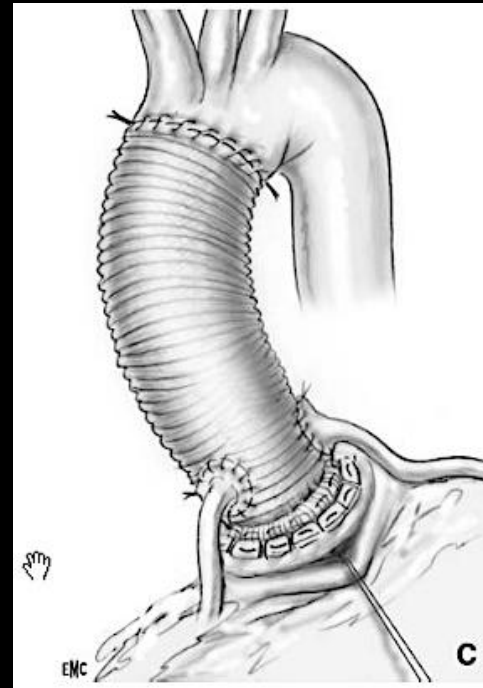
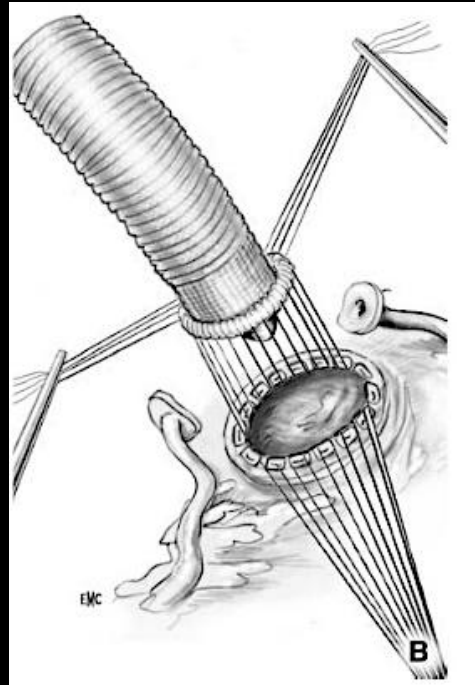
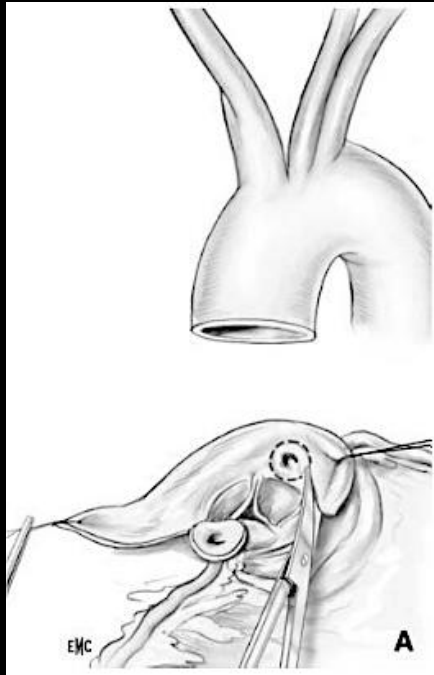
Remplacement  
prothétique de la **valve**  
et de la **racine aortique**  
Réimplantation des  
coronaires



# Principales techniques chirurgicales de l'aorte thoracique

## Anastomose proximale

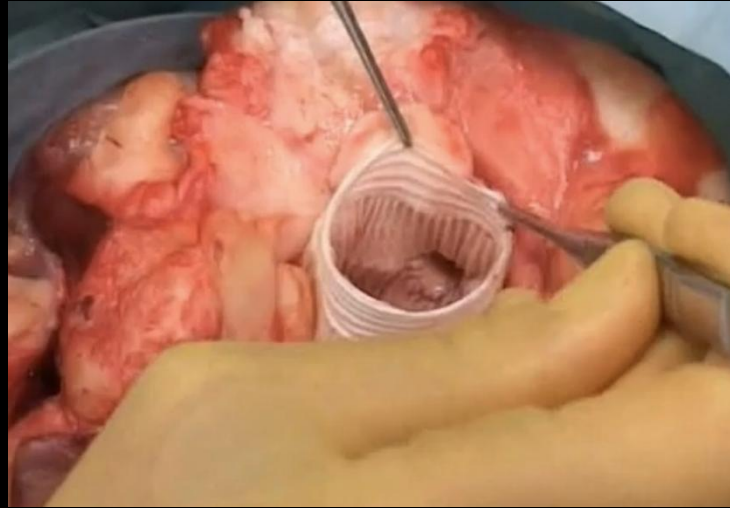
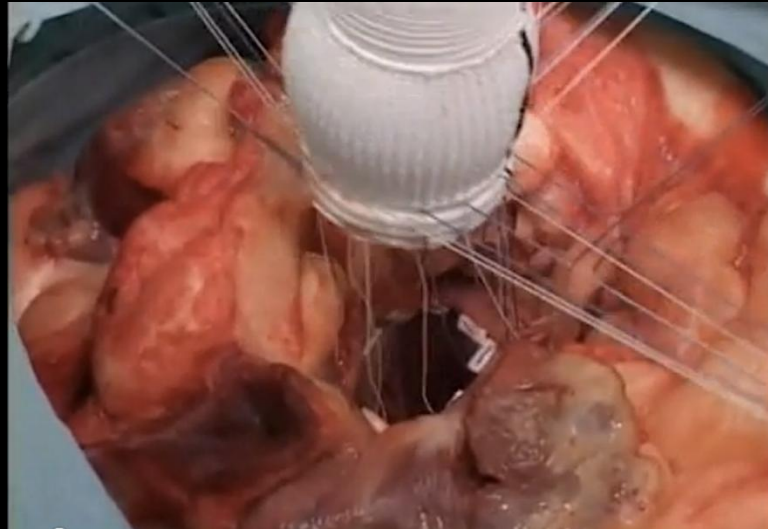
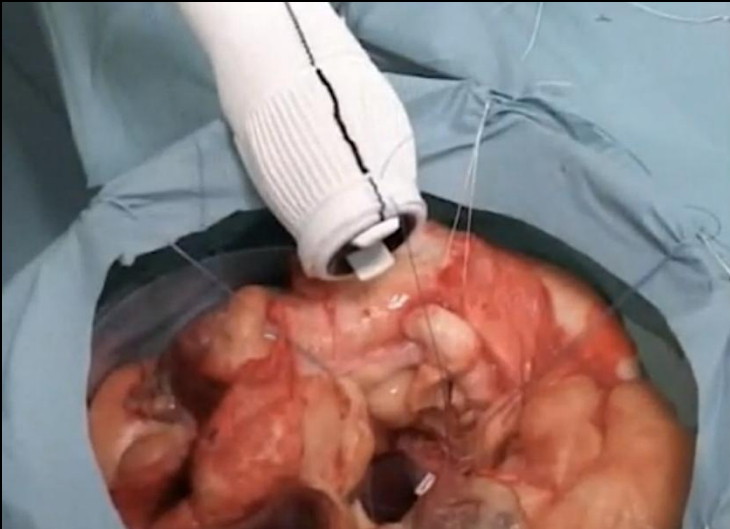
### Bentall prothèse valvulaire aortique mécanique ou bioprothèse



Resection totale de l'aorte ascendante  
Découpage en bouton et mobilisation des ostia coronaires autrre

Mise en place du tube valvé sur l'anneau aortique

Réimplantation directe des ostia coronaires sur la prothèse de Dacron

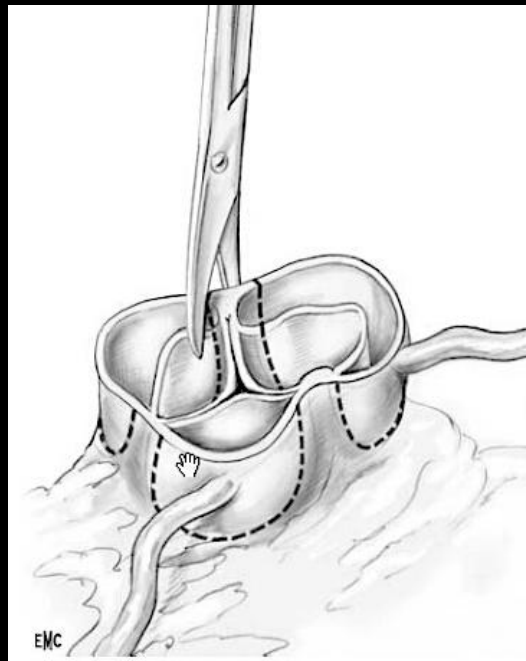
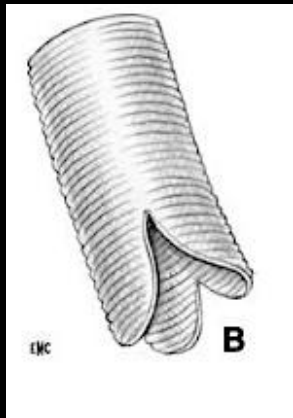
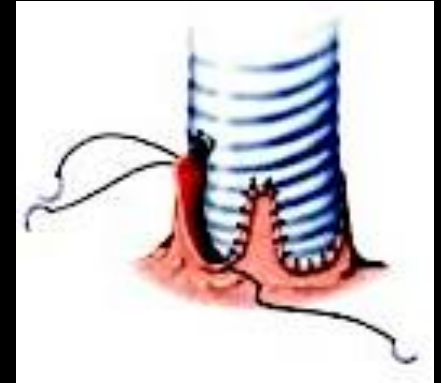


# Principales techniques chirurgicales de l'aorte thoracique

Anastomose proximale avec conservation de la valve aortique native

Yacoub = remodelage et utilisation d'une prothèse à anneau de type Gelweave "Valsalva" graft

réservée aux fuites centrales modérées avec sigmoïdes fines

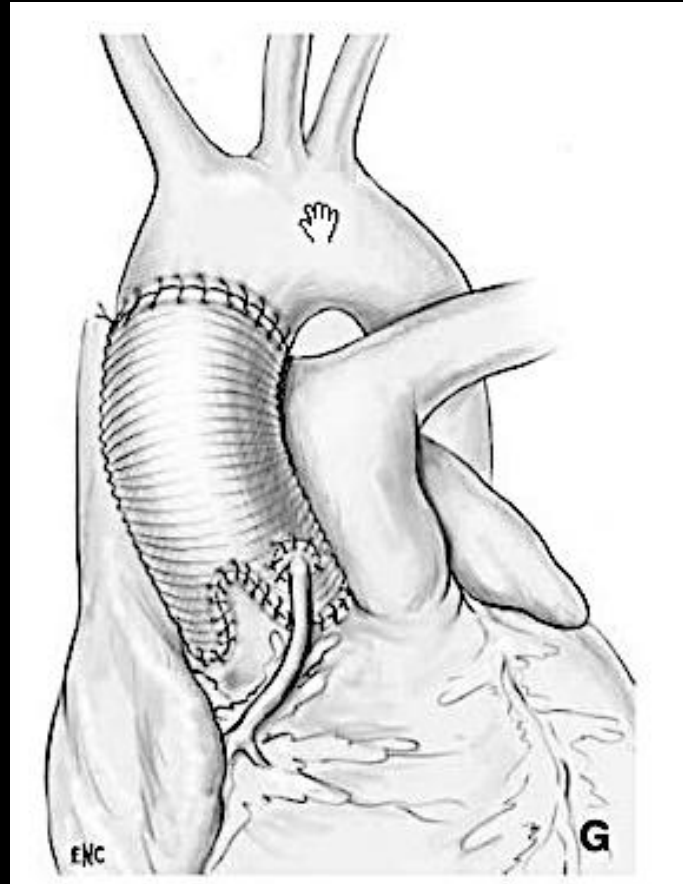
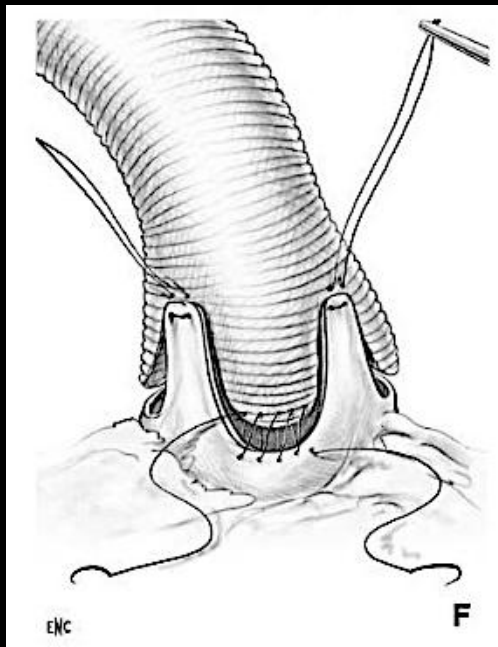
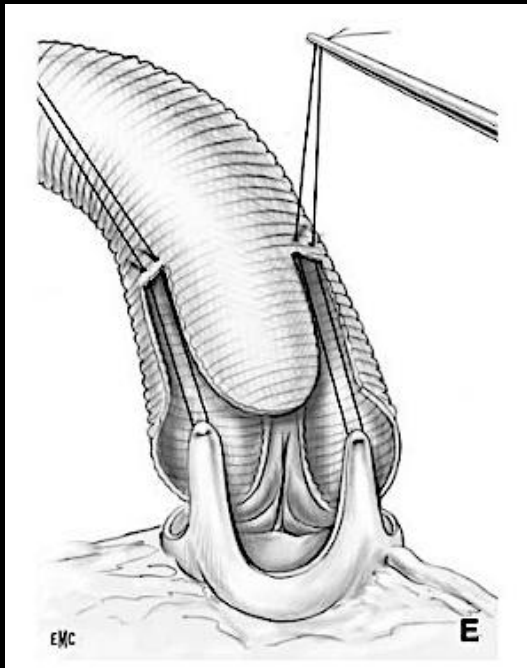


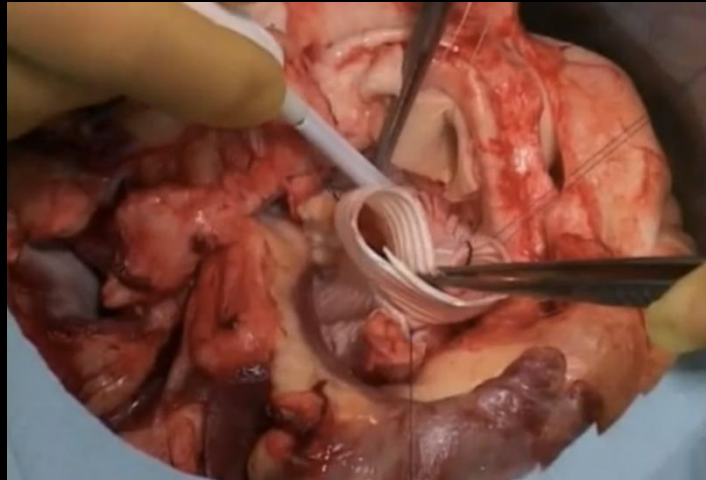
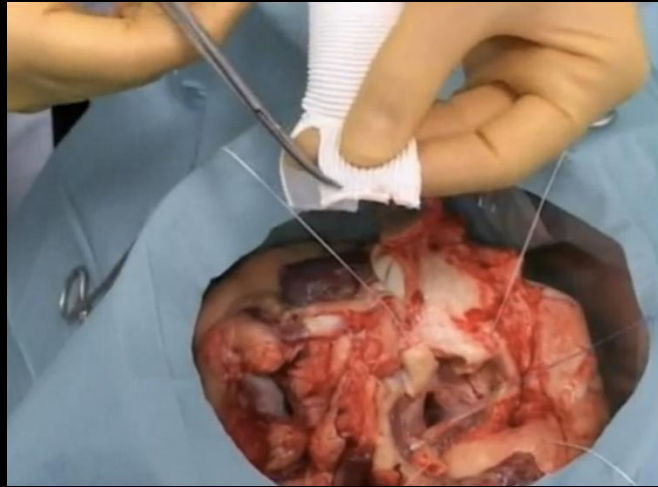
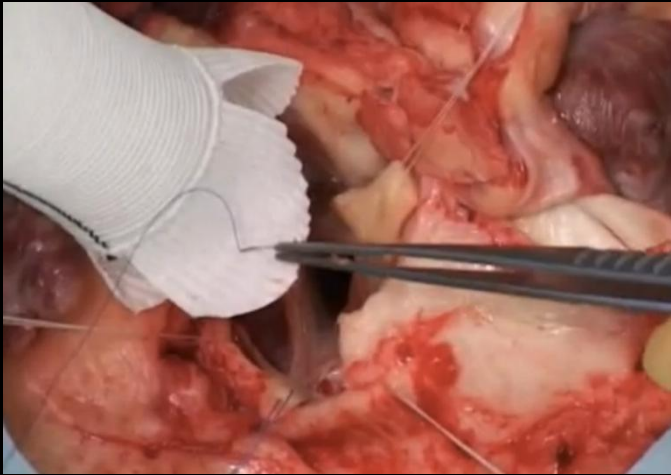
Resection de l'aorte ascendante  
Découpe des ostia coronaires en boutons  
Découpe des sinus de Valsalva

Découpe de trois folioles prothétiques  
correspondant à la forme des sinus  
coronaires

Suture

Réimplantation des ostia coronaires

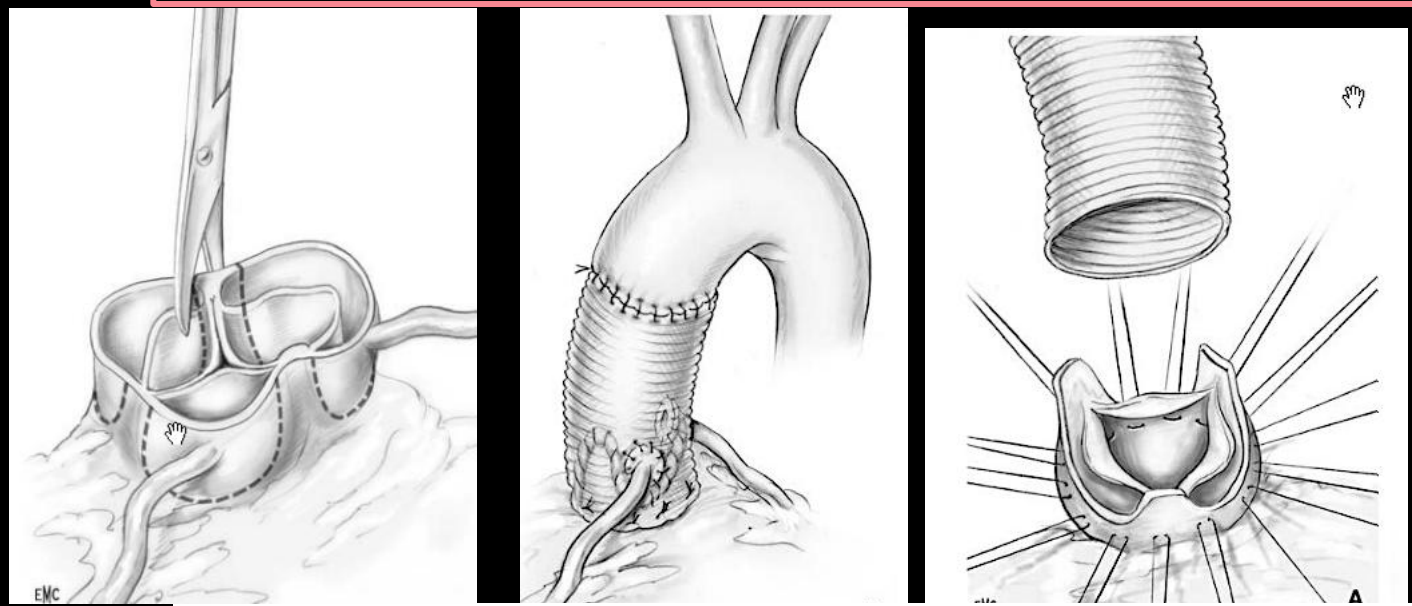




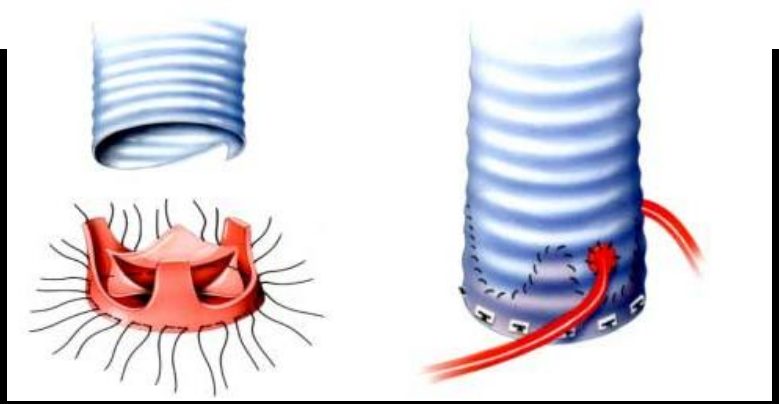
# Principales techniques chirurgicales de l'aorte thoracique

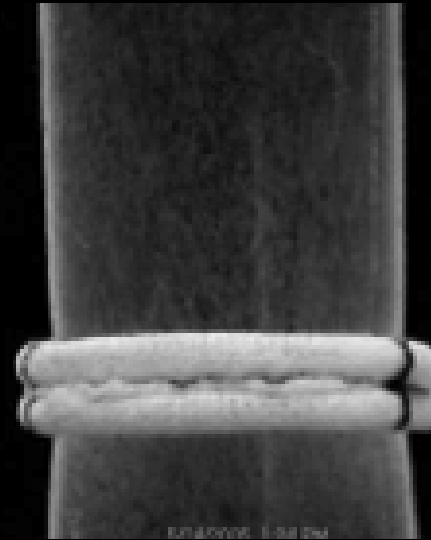
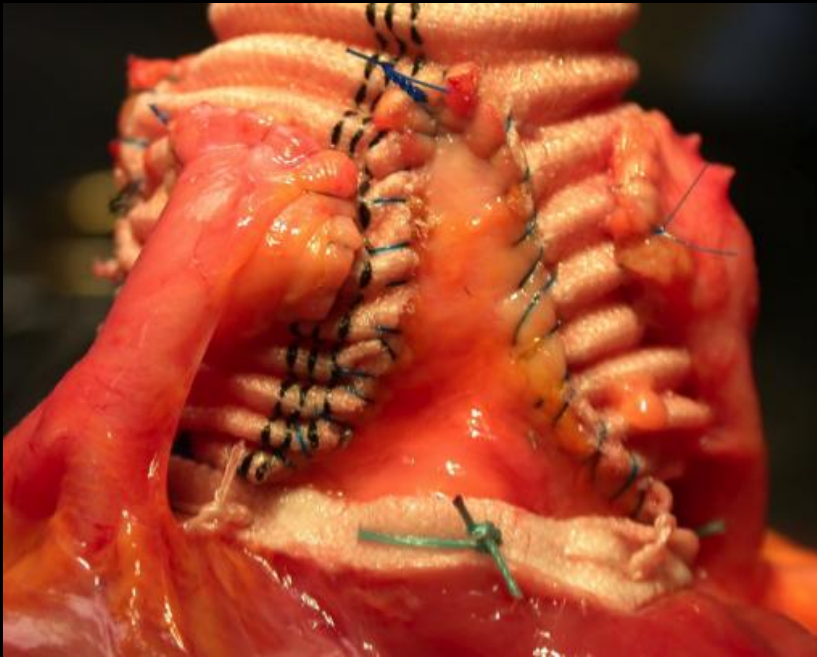
## Anastomose proximale avec conservation de la valve aortique native

Tyrone David = conservation de la valve aortique native qui est entièrement incluse dans le tube prothétique, ce qui évite les dilatations ultérieures

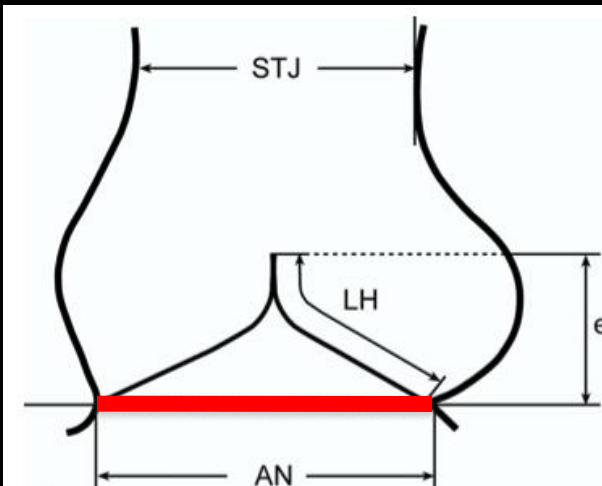


- Points en U sous l'insertion des sigmoïdes
- Fils sont passés à l'intérieur de la prothèse
- Suture
- Réimplantation des ostia coronaires

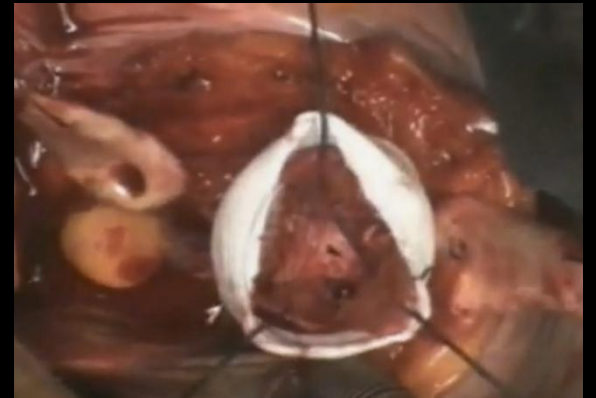
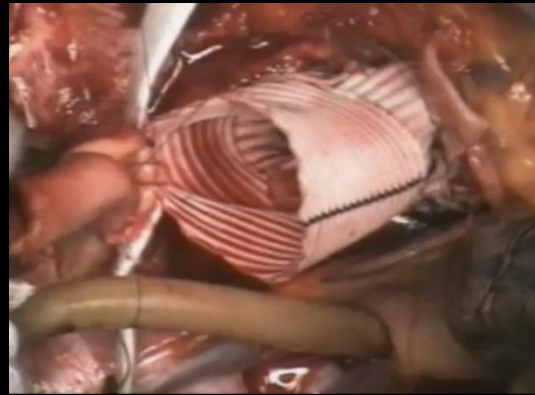




Basé sur le diamètre d'un **anneau sous valvulaire** ...  
 DAVID -



Ou sur un rétablissement du  
 calibre de l'anneau par des  **fils**  
 maintenus par un **clip**  
 - SCHAFFERS -

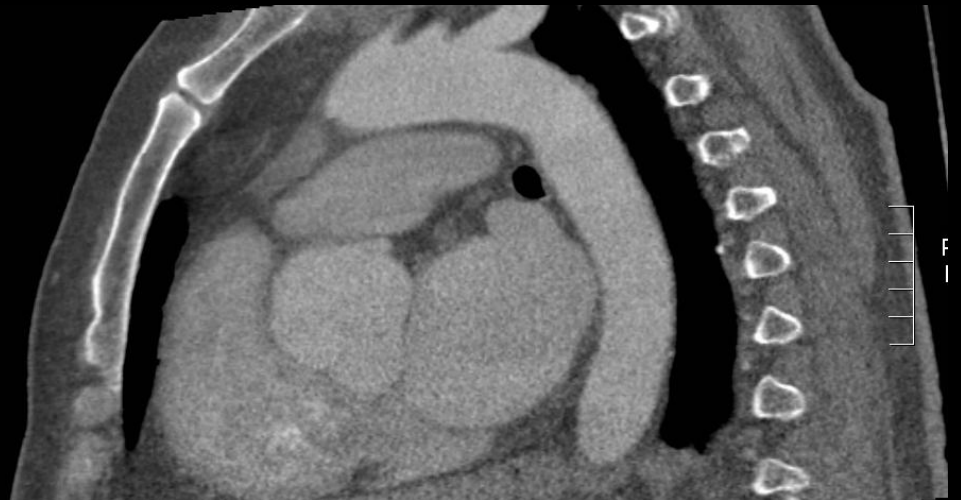
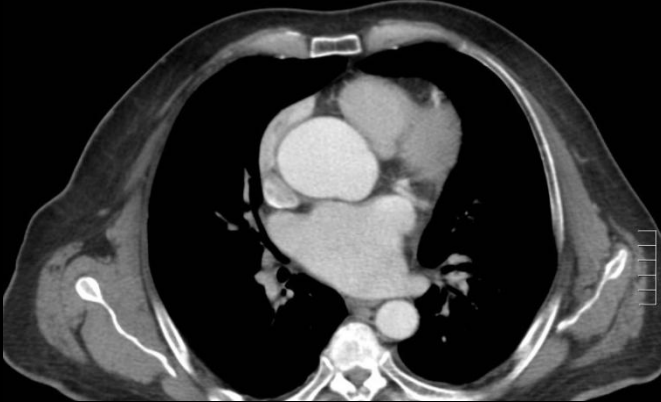


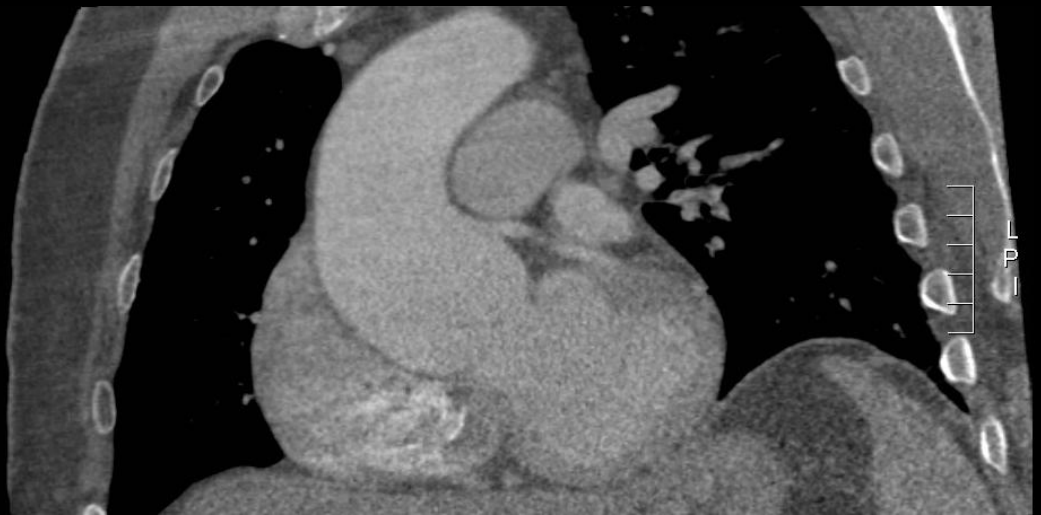
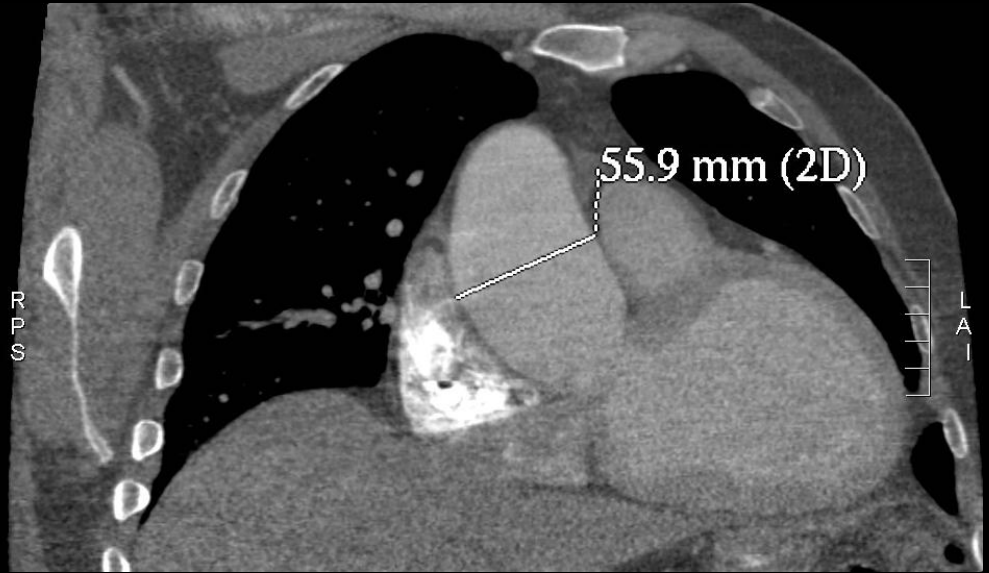
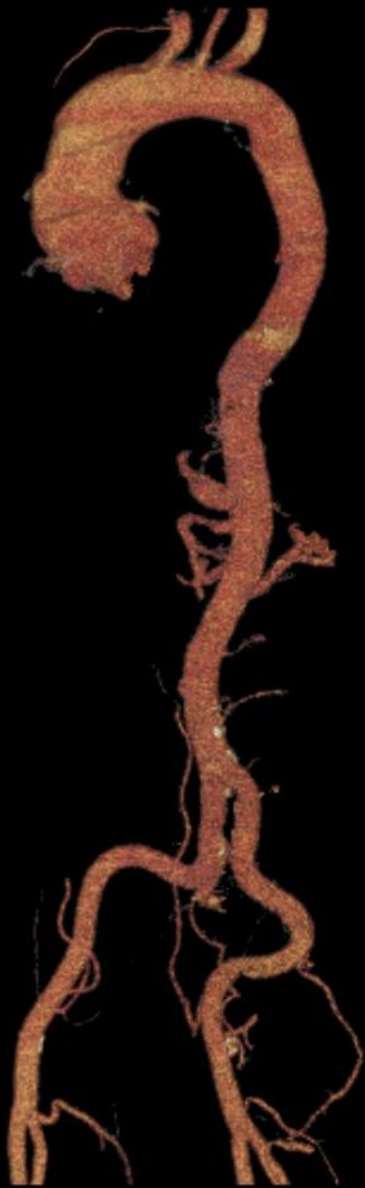


Patient de 57 ans Suivi d'une HTAP : découverte d'une dilatation de l'aorte ascendante

AngioTDM thoracique - MAI 2010

Clémence BALAJ





Etude **CAVIAAR** prospective multicentrique

*Conservation **A**ortique **V**alvulaire pour les **I**nsuffisances **A**ortiques  
et les **A**névrismes de la **R**acine*

**Faut-il conserver les valves aortiques?**

- Eviter l'**anticoagulation** chez les jeunes patients (MTEV, risque hémorragique)
- Améliorer **la survie**?
- Diminuer le risque **d'endocardite**?

Décembre 2010 ...

**Fièvre, altération de l'état général**

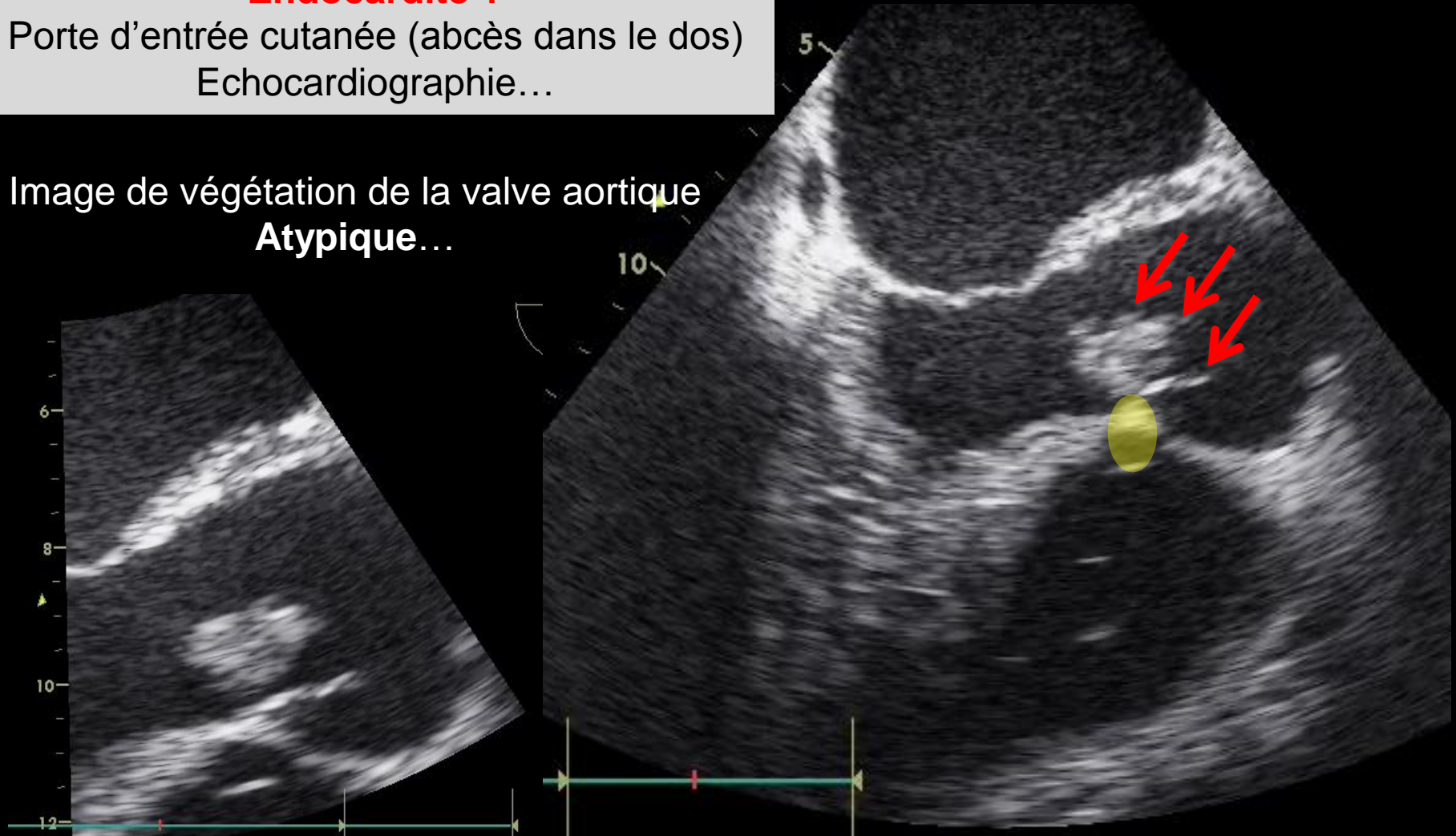
**Endocardite ?**

Porte d'entrée cutanée (abcès dans le dos)

Echocardiographie...

Image de végétation de la valve aortique

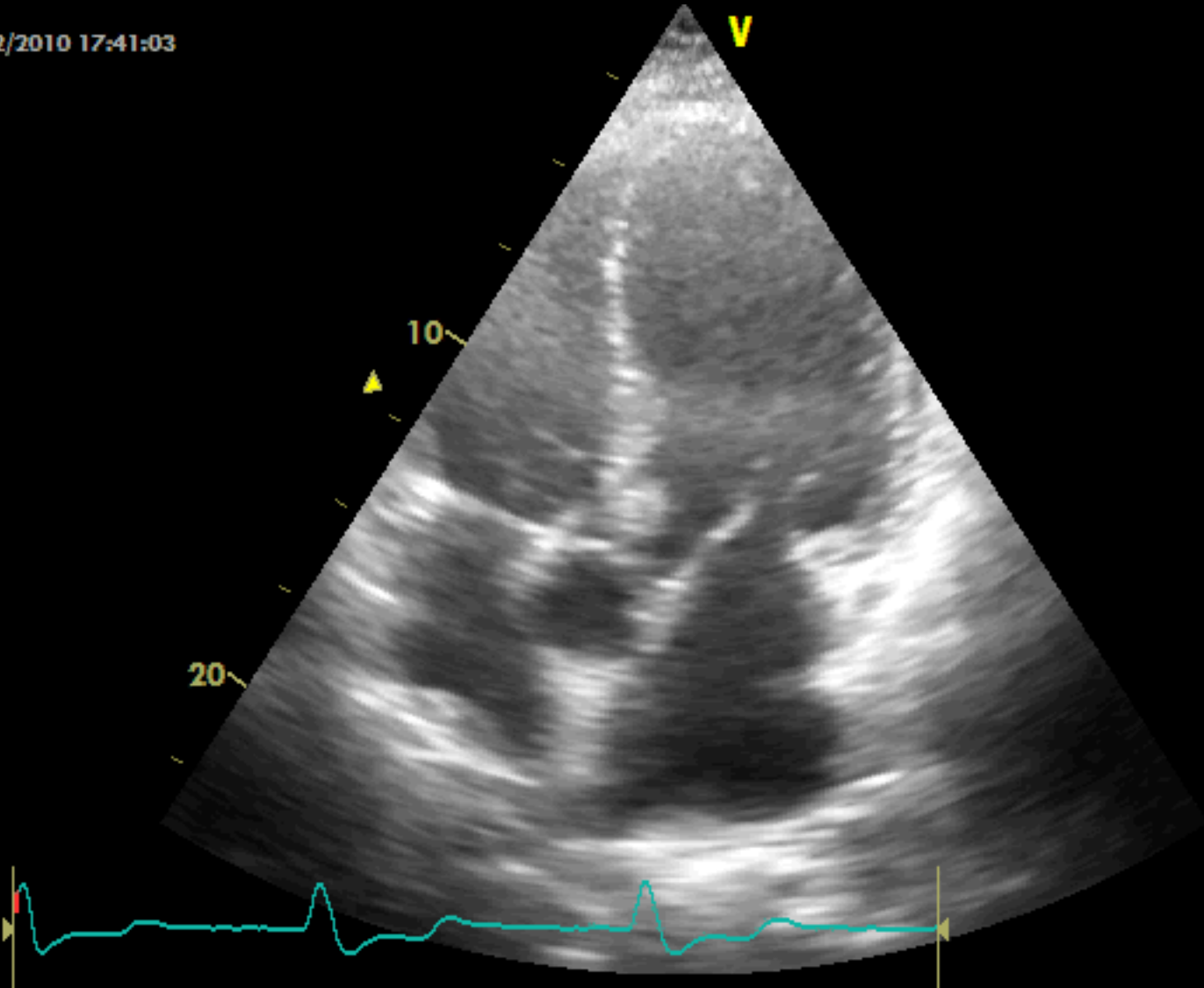
**Atypique...**



**Echocardiographie TRANS OESOPHAGIENNE**

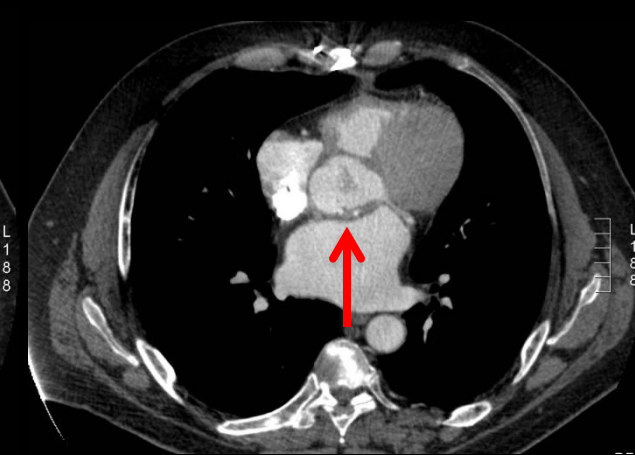
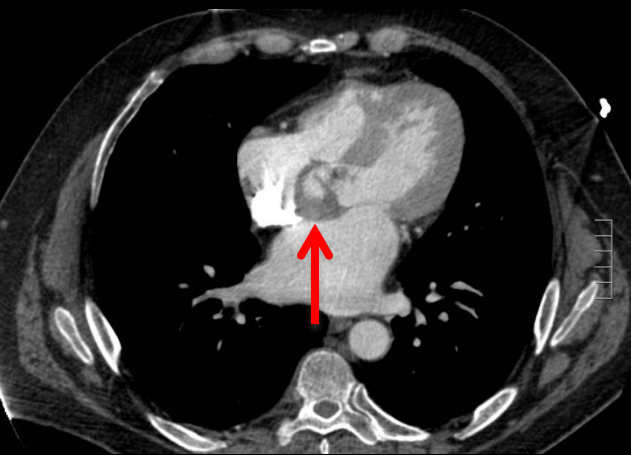
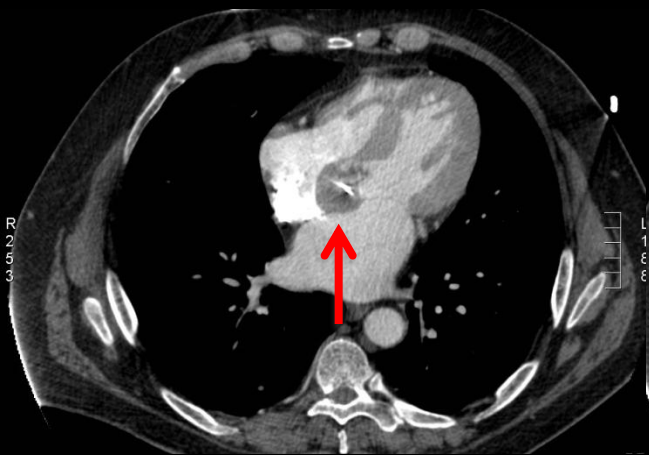
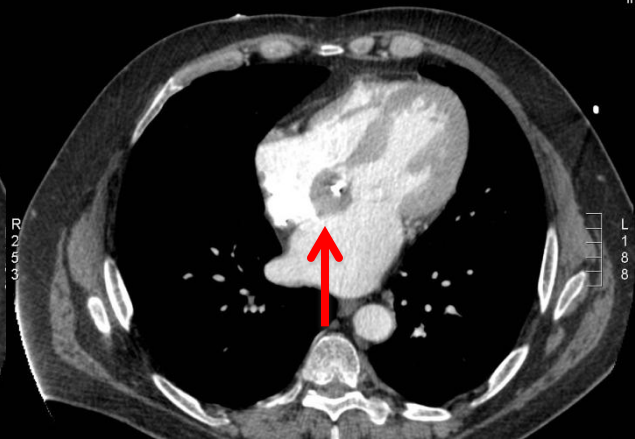
# Echocardiographie TRANS THORACIQUE

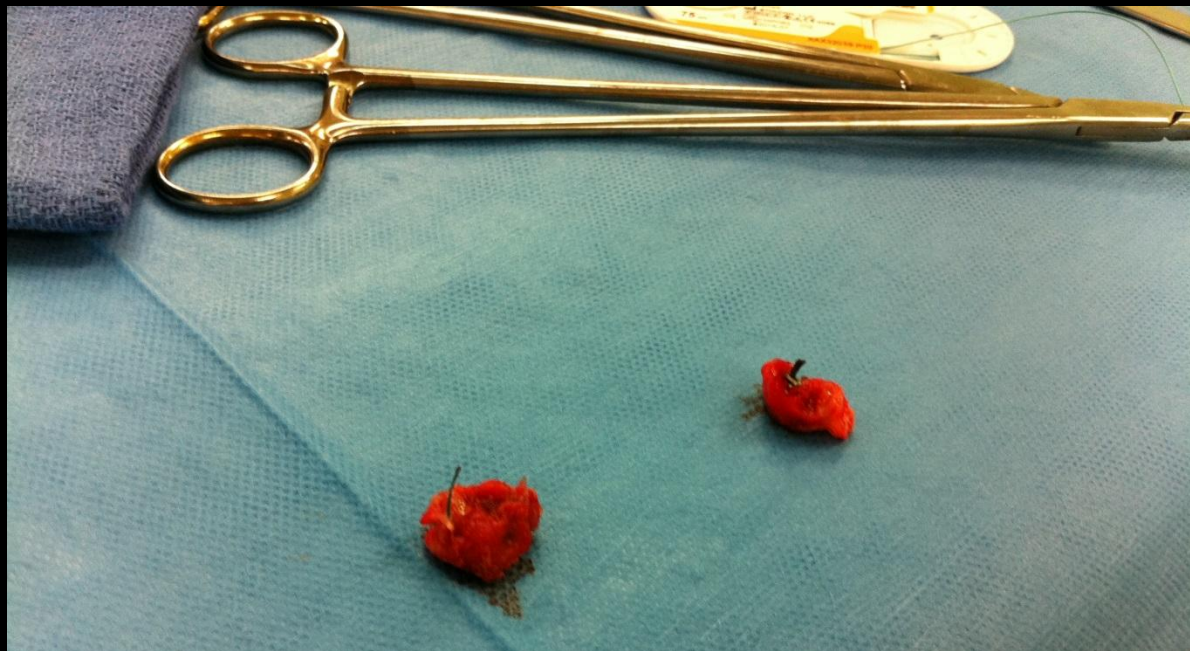
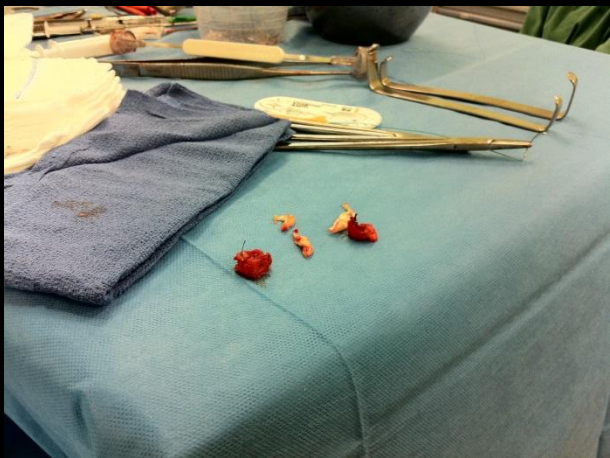
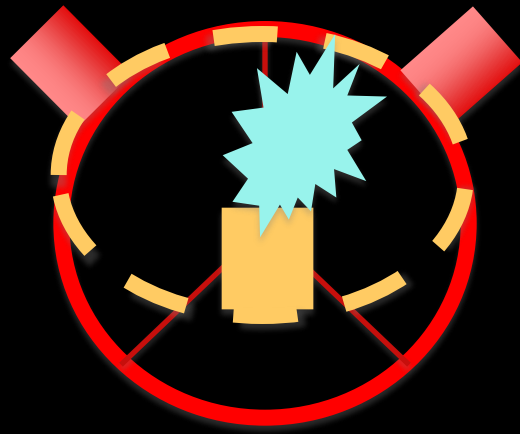
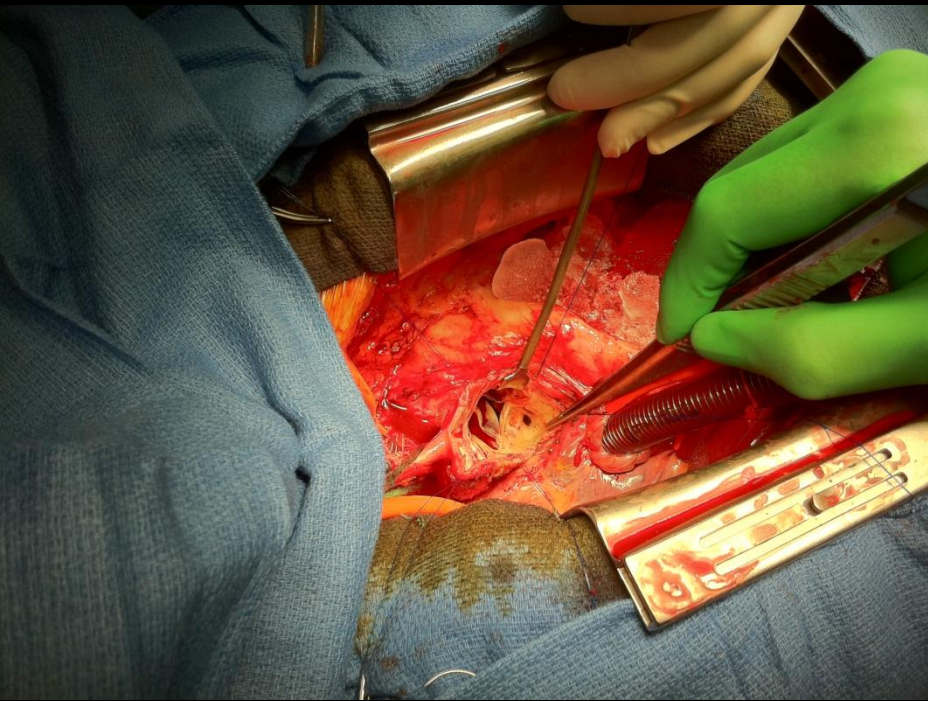
31/12/2010 17:41:03  
23

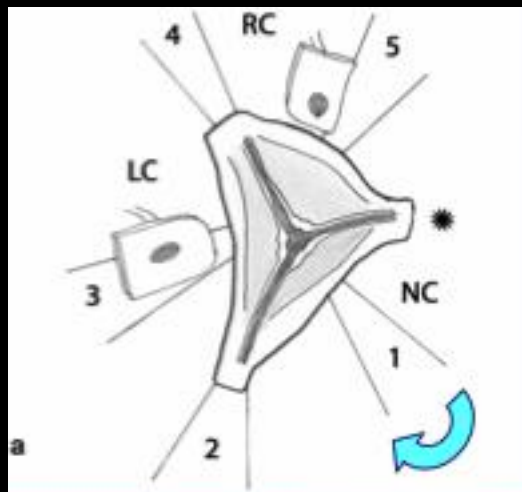


77  
HR

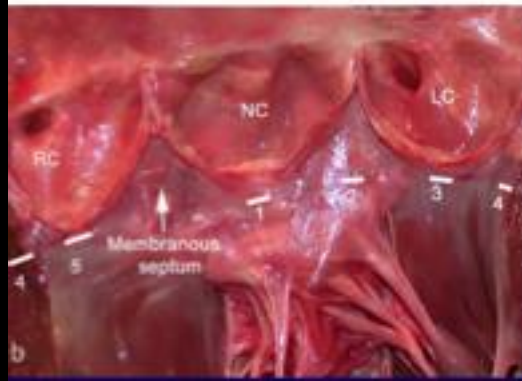
# Bilan d'extension : TDM







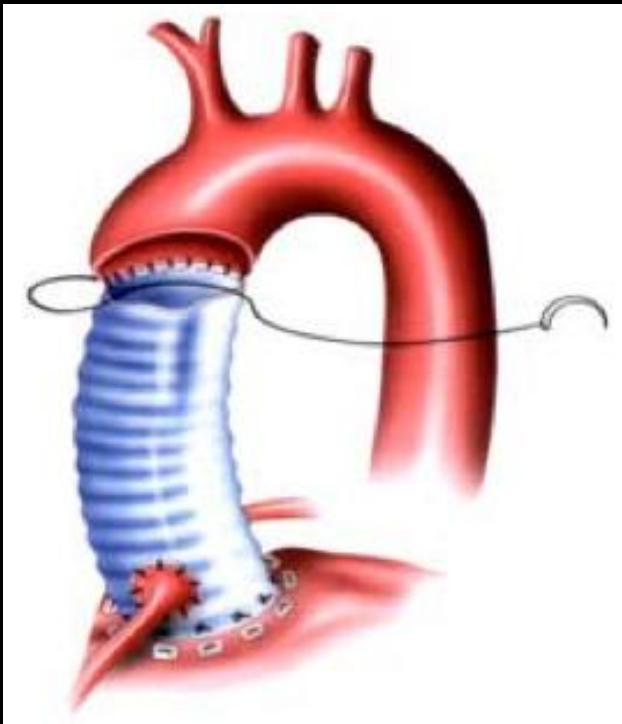
Endocardite à *Staphylococcus epidermidis* Méti-S sur  
plastie aortique  
Porte d'entrée cutanée  
→ Remplacement valvulaire par une valve prothétique





## CONCLUSION

Remplacement de la **valve aortique** et de **l'aorte ascendante**



Etude **CAVIAAR**  
*Conservation Aortique  
Valvulaire pour les  
Insuffisances Aortiques  
et les Anévrismes de la  
Racine*

Endocardite ?  
Anticoagulants?  
Survie?

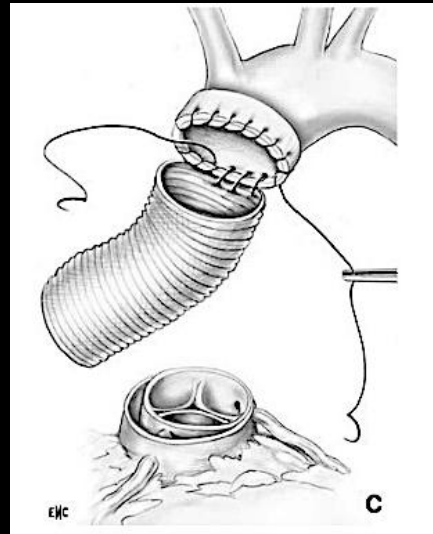


Conservation de la **valve aortique**  
Remplacement de **l'aorte ascendante**

# Principales techniques chirurgicales de l'aorte thoracique

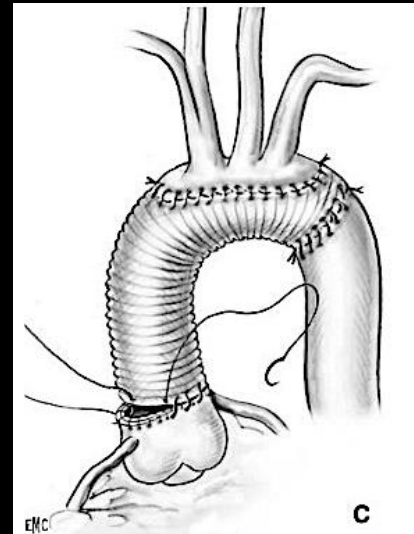
## Anastomose distale

### Anastomose distale simple

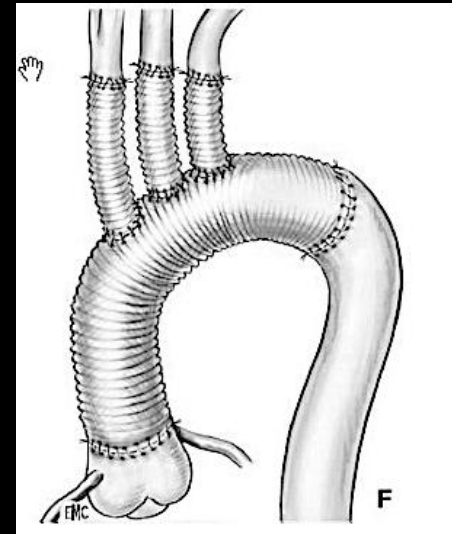


### Réimplantation des vaisseaux du cou

#### En bloc



#### Séparée

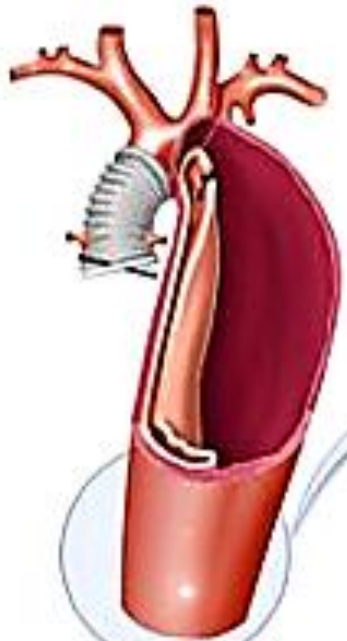


# Traitement en urgence

⊗ Fenestration : inefficace

⊗ Double fenestration avec mise en place d'un tube droit aorte ascendante

Dissection aortique



État avant intervention chirurgicale

*Fenestration :*  
1- perforation et dilatation de l'intima  
2- mise en place du stent  
3 & 4 - déchirure intimale au guide.



1



2



3



4



État après intervention chirurgicale

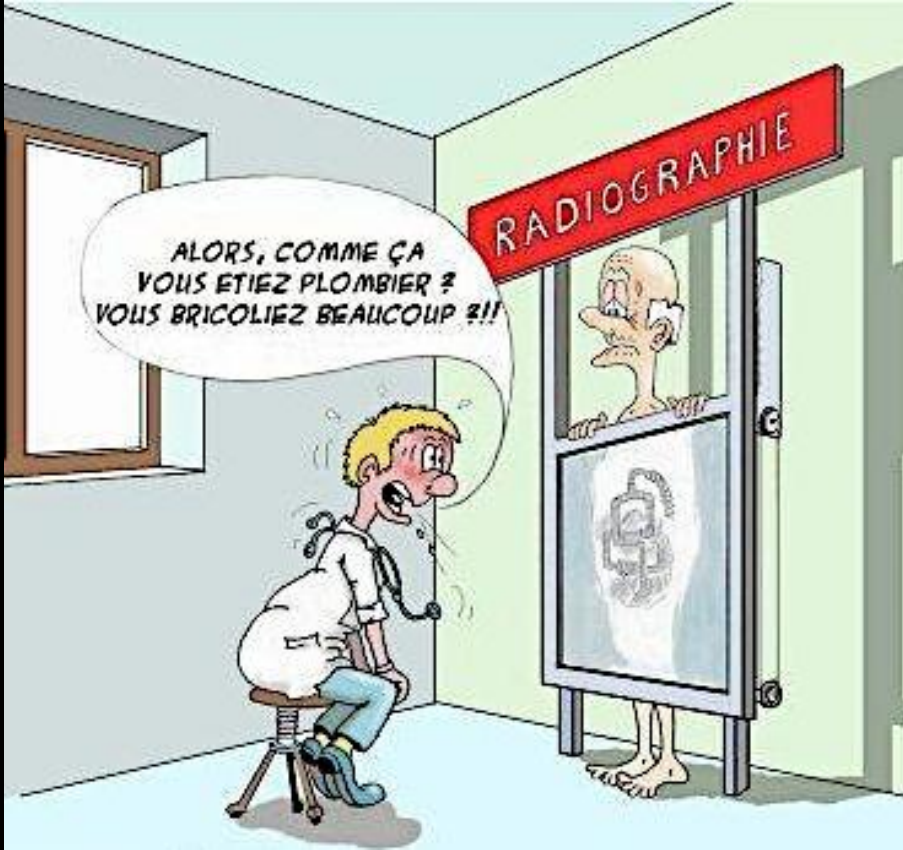


AVANT

APRÈS

Flux sanguin rétabli dans les différentes artères digestives.

Adelmo J. F. et al. © 2007



<http://chirurgie-cardiaque-besancon.org>