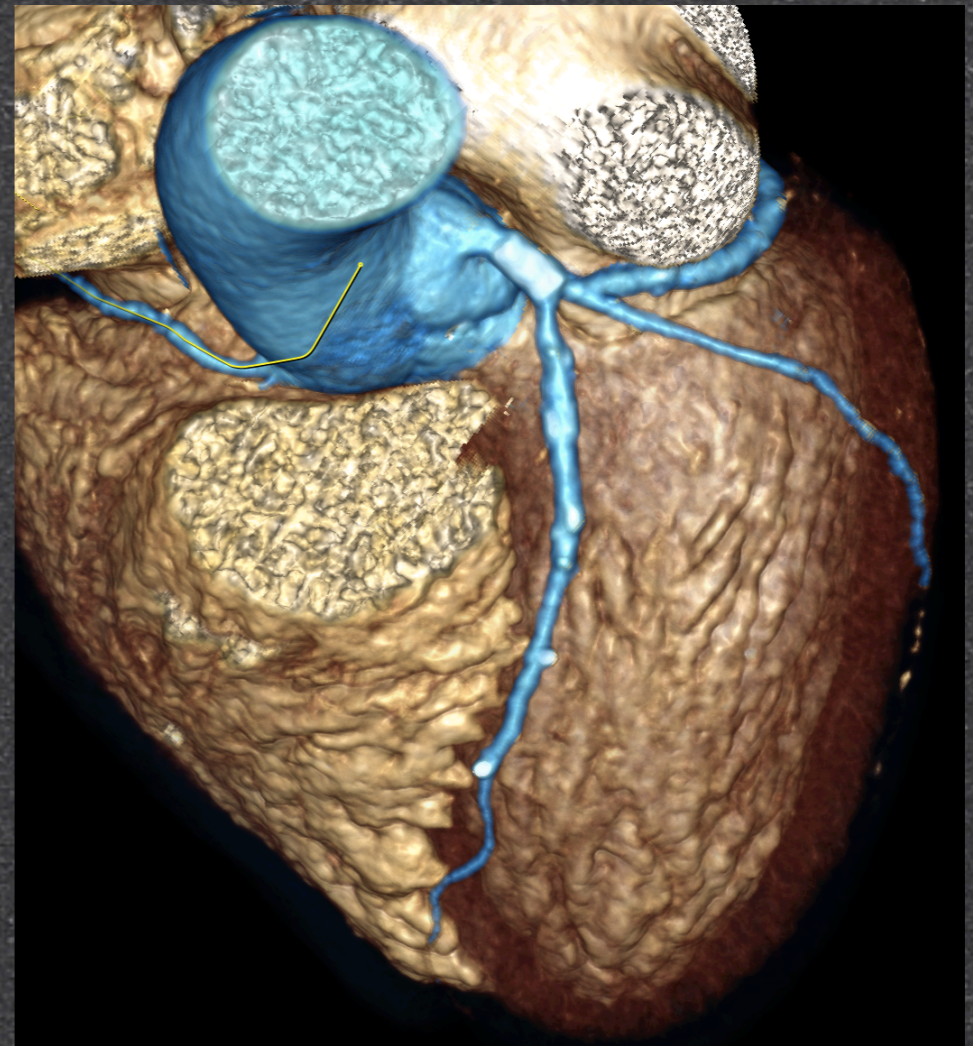
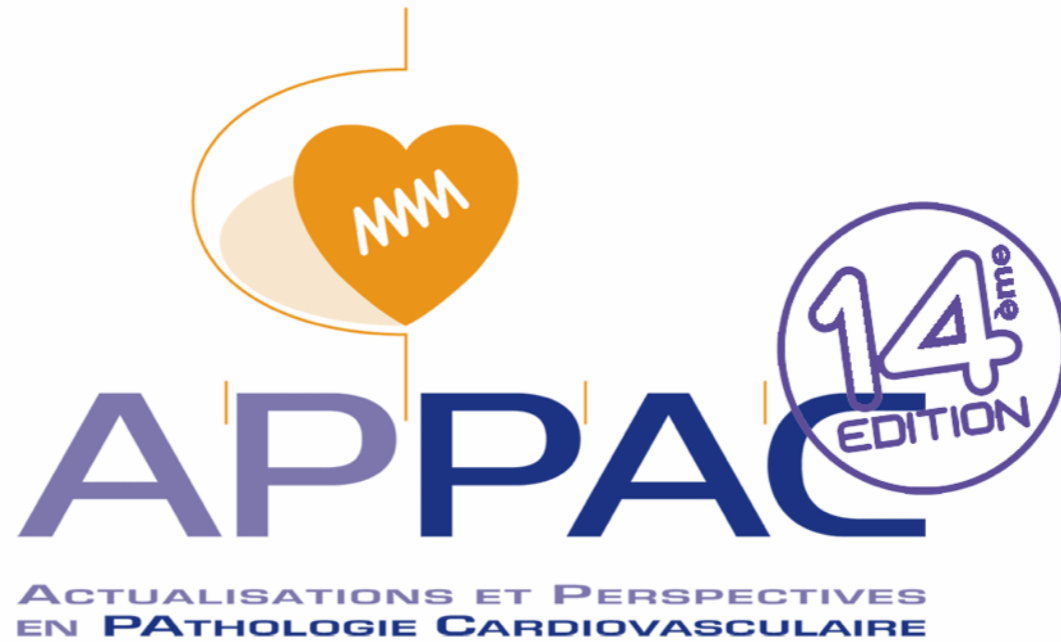


# *Les 50 Nuances de Stents (ou presque en Scanner)*

David PESENTI ROSSI

APPAC 2015





**David PESENTI ROSSI**

*déclare n'avoir aucun conflit d'intérêt concernant les données  
de sa communication*

# Scanner et Stents

## APPROPRIATE USE CRITERIA

### ACCF/SCCT/ACR/AHA/ASE/ASNC/SCAI/SCMR 2010 Appropriate Use Criteria for Cardiac Computed Tomography

A Report of the American College of Cardiology Foundation Appropriate Use Criteria Task Force, the Society of Cardiovascular Computed Tomography, the American College of Radiology, the American Heart Association, the American Society of Echocardiography, the American Society of Nuclear Cardiology, the Society for Cardiovascular Angiography and Interventions, and the Society for Cardiovascular Magnetic Resonance

Cardiac  
Computed

Allen J. Taylor, MD, FACC, FAHA, *Chair\**

Archives of Cardiovascular Diseases  
Suppléments (2009) N°1, 13 – 22

**recommandations**

Les indications actuelles du scanner cardiaque

J-M Pernès (1), M Sirol (2), V Chabbert (3), L Christiaens (4), D Alison (5), M Hamon (6) et C Caussin (7)

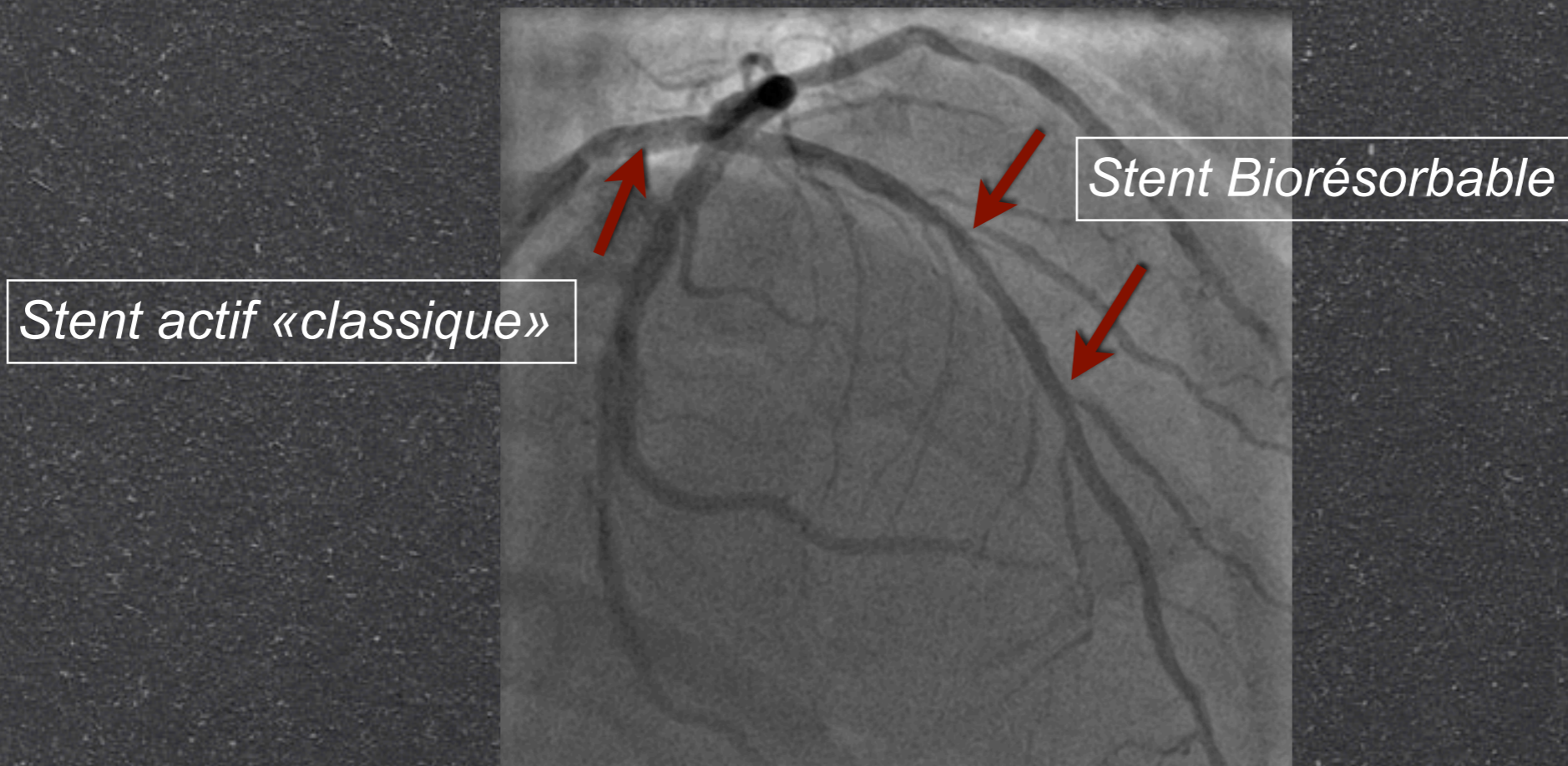
 **Stents du TCG Appropriée**

 **Stents  $\geq 3\text{mm}$  Appropriée**

 **Stents  $< 3\text{mm}$  Inappropriée**

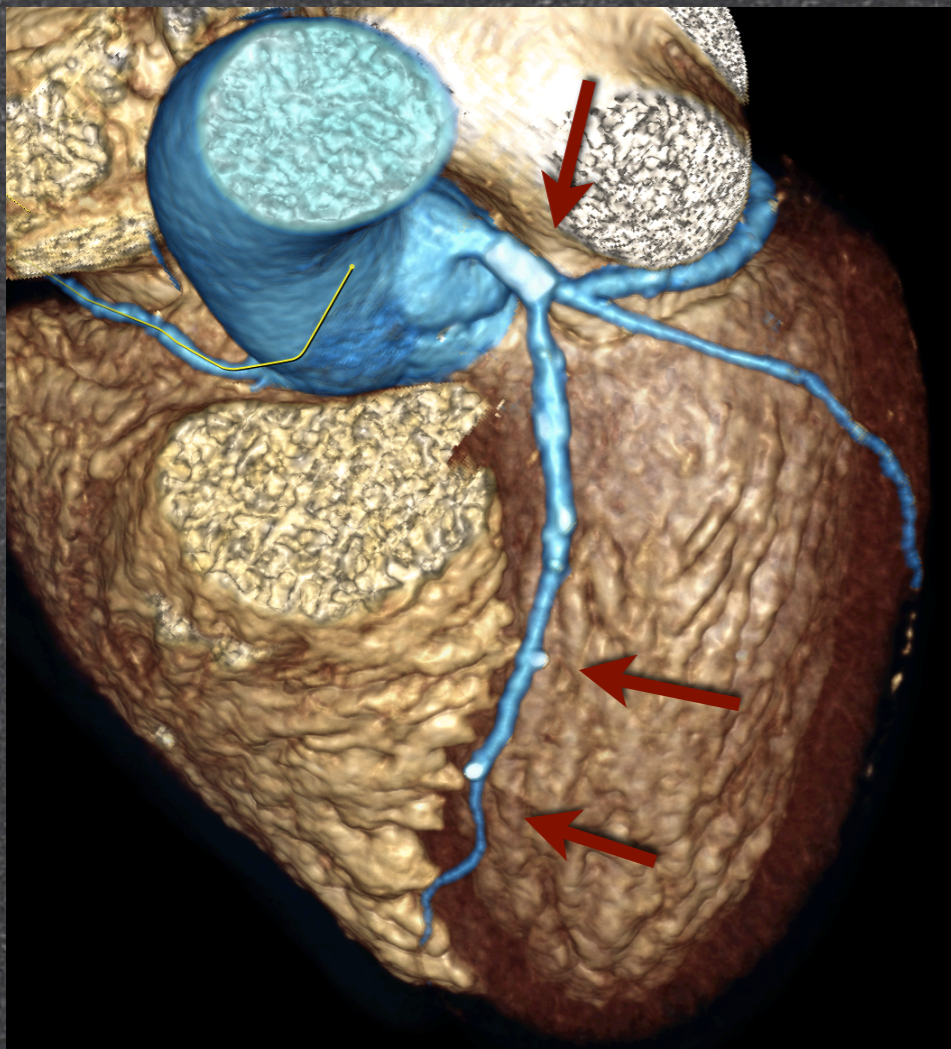
*H 51 ans,  
Test d'ischémie Positif*

*Coro + Stents TCG & IVA2*



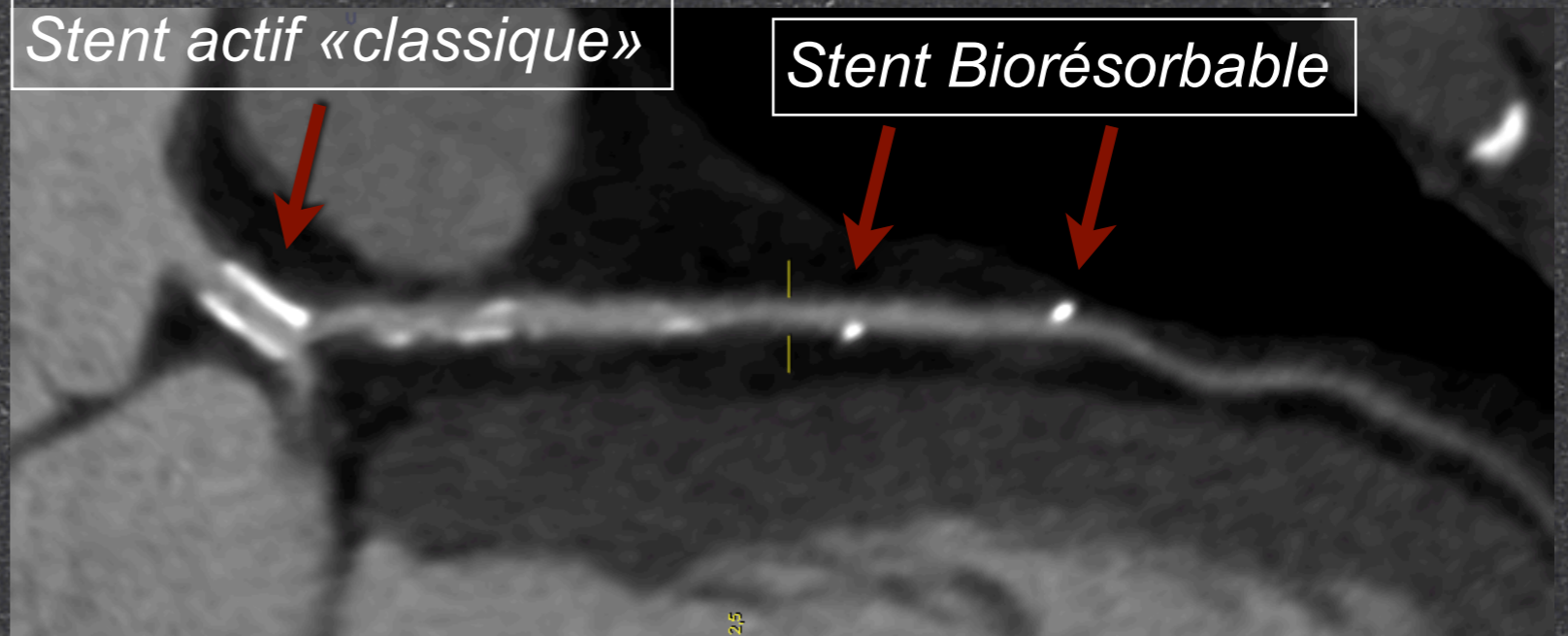
# *DT atypiques à M1*

## *Scanner Coronaire*



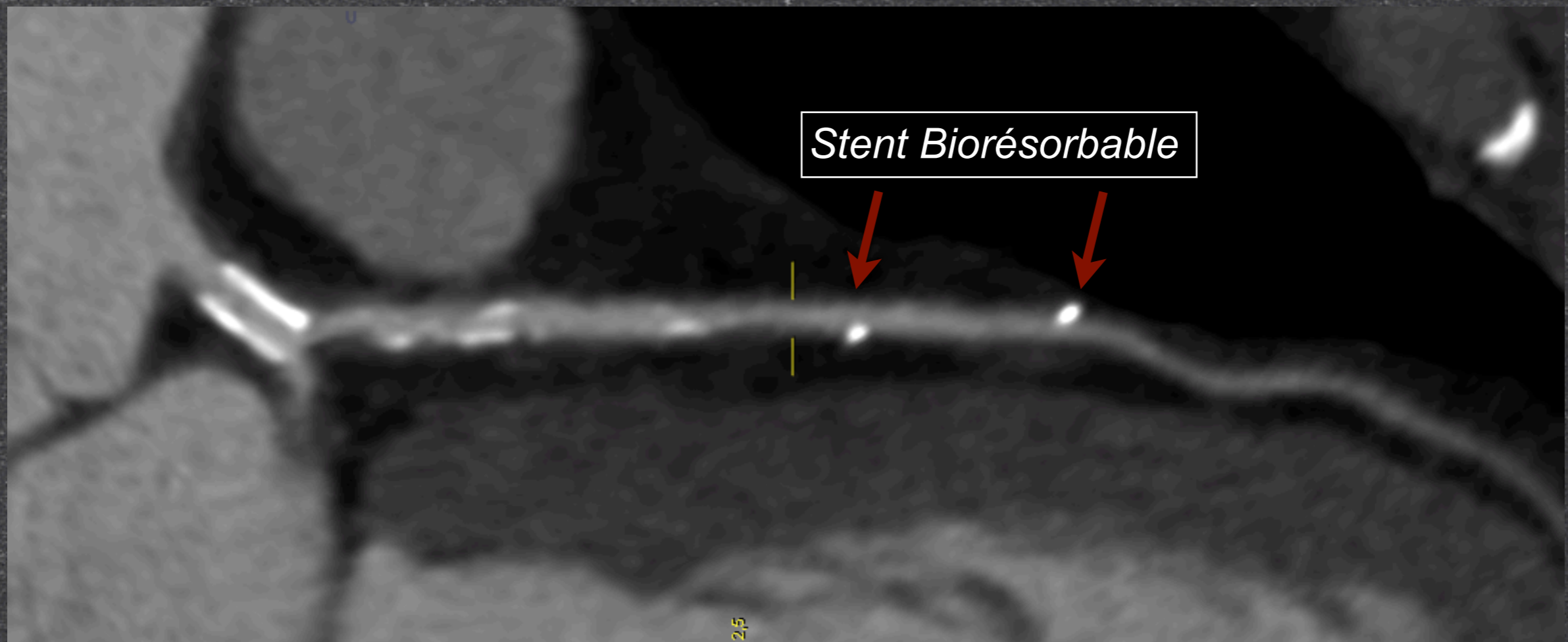
*Stent actif «classique»*

*Stent Biorésorbable*



*DT atypiques à M1*

*Scanner Coronaire*



*Pesenti-Rossi D et al. ANCAAN 2014*

# *DT atypiques à M1*



# Scanner et Stents

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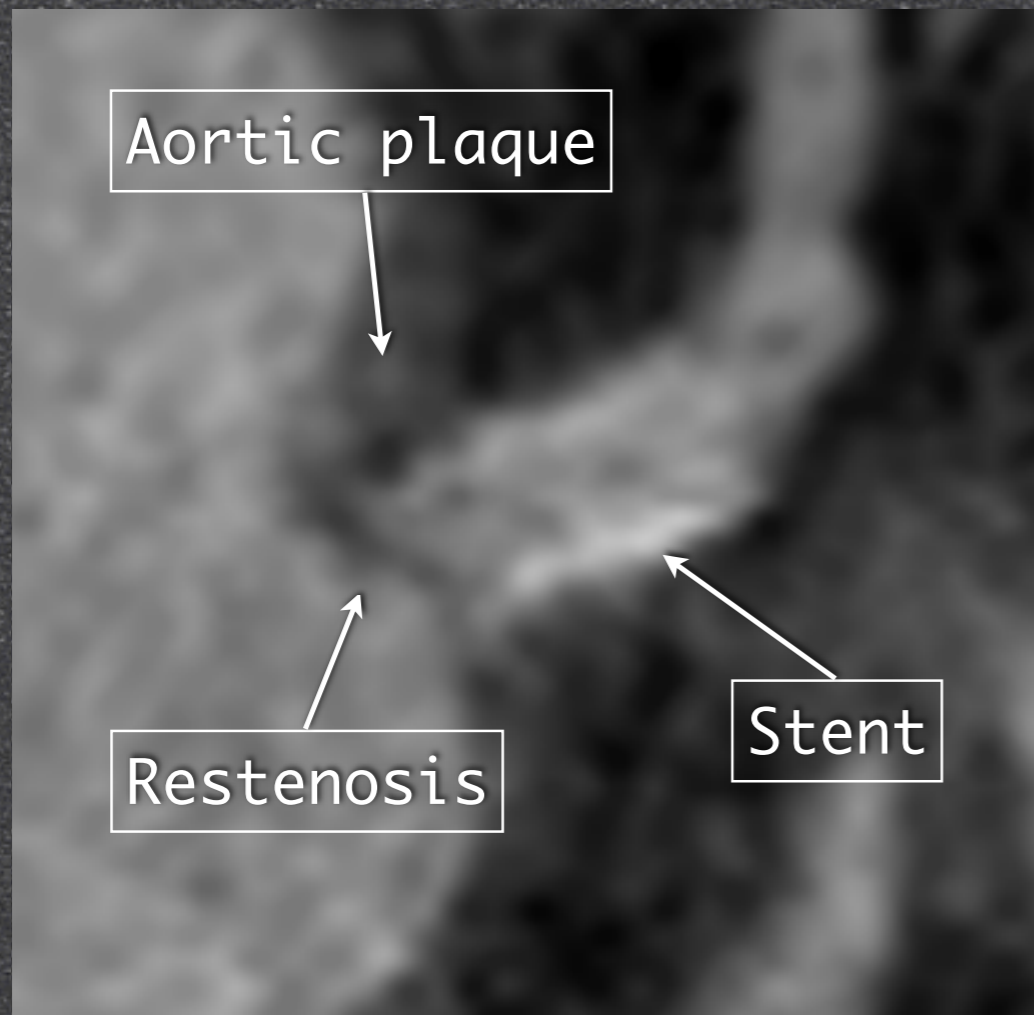
 Stents du TCG Appropriée

 Stents  $\geq 3\text{mm}$  Appropriée

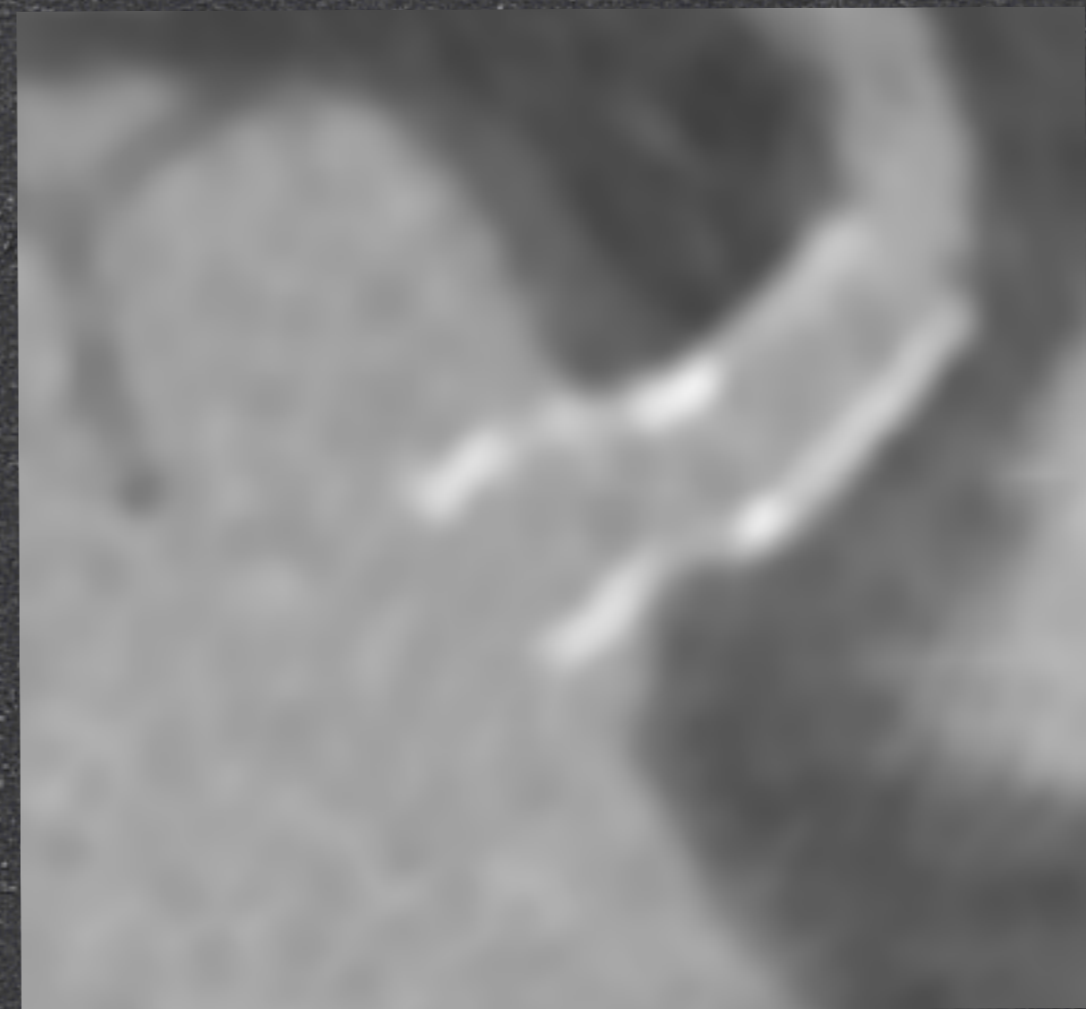
 Stents  $< 3\text{mm}$  Inappropriée



# *Contrôle Stents TCG*



*Scanner sans reconstruction itérative*



*Scanner avec reconstruction itérative*

# *Contrôle Stents > 3mm*

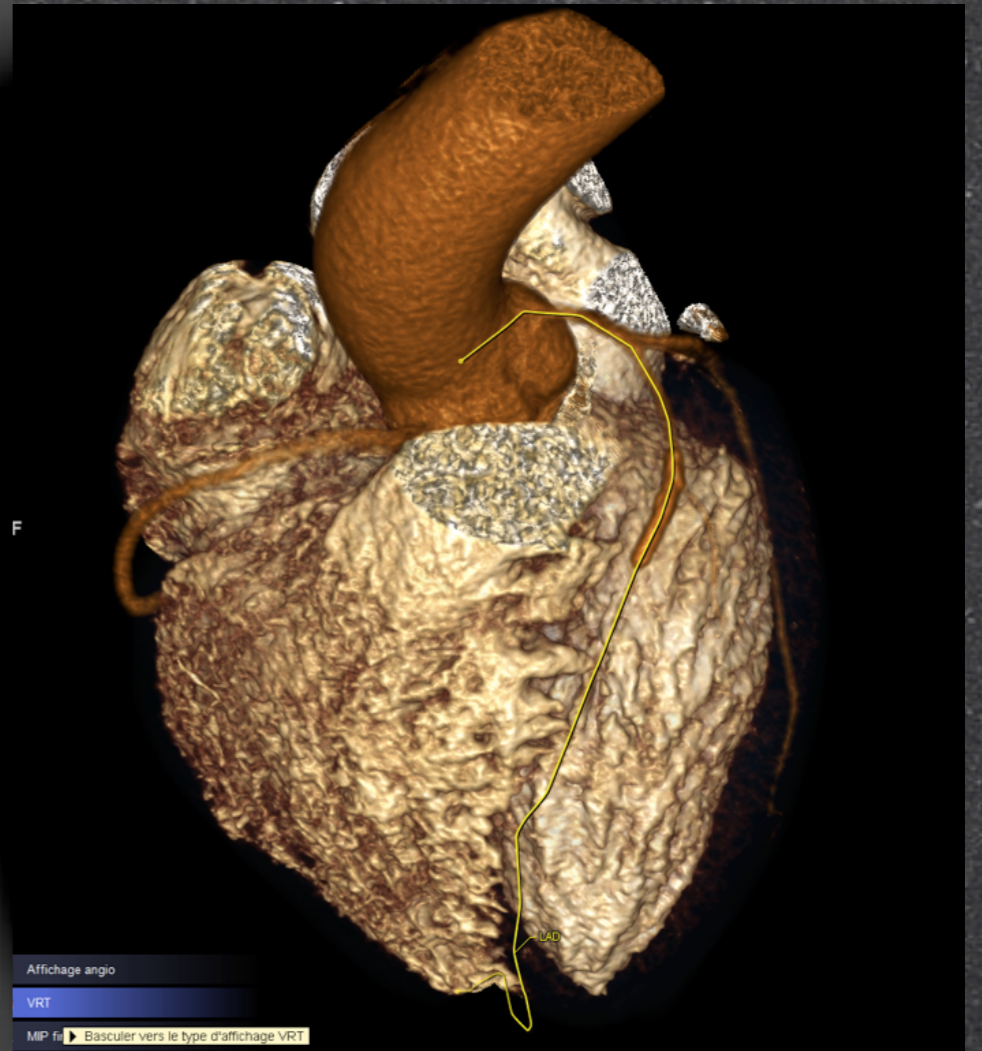
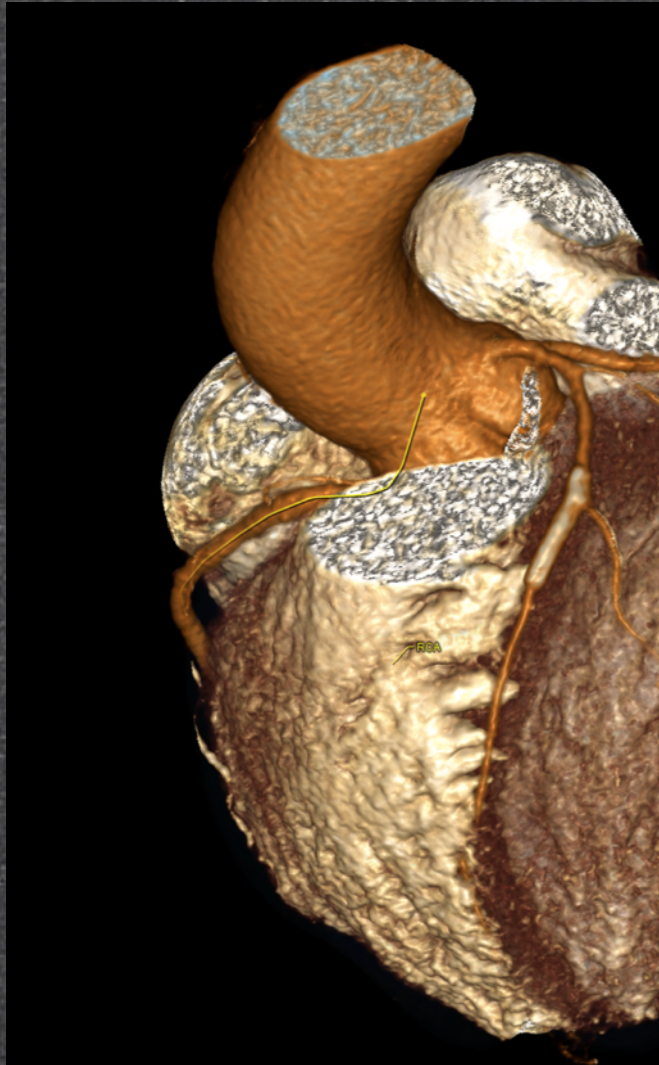
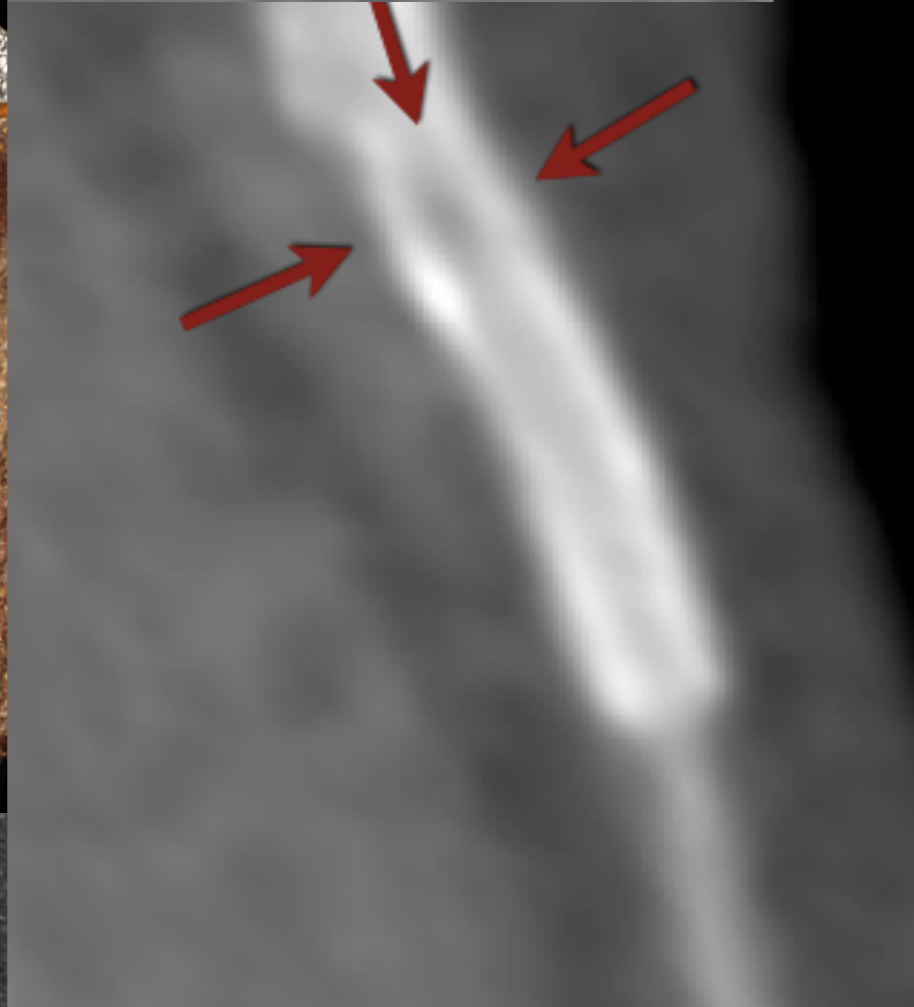


*Scanner avec reconstruction itérative*

*Pesenti-Rossi D et al. European Heart J 2012*

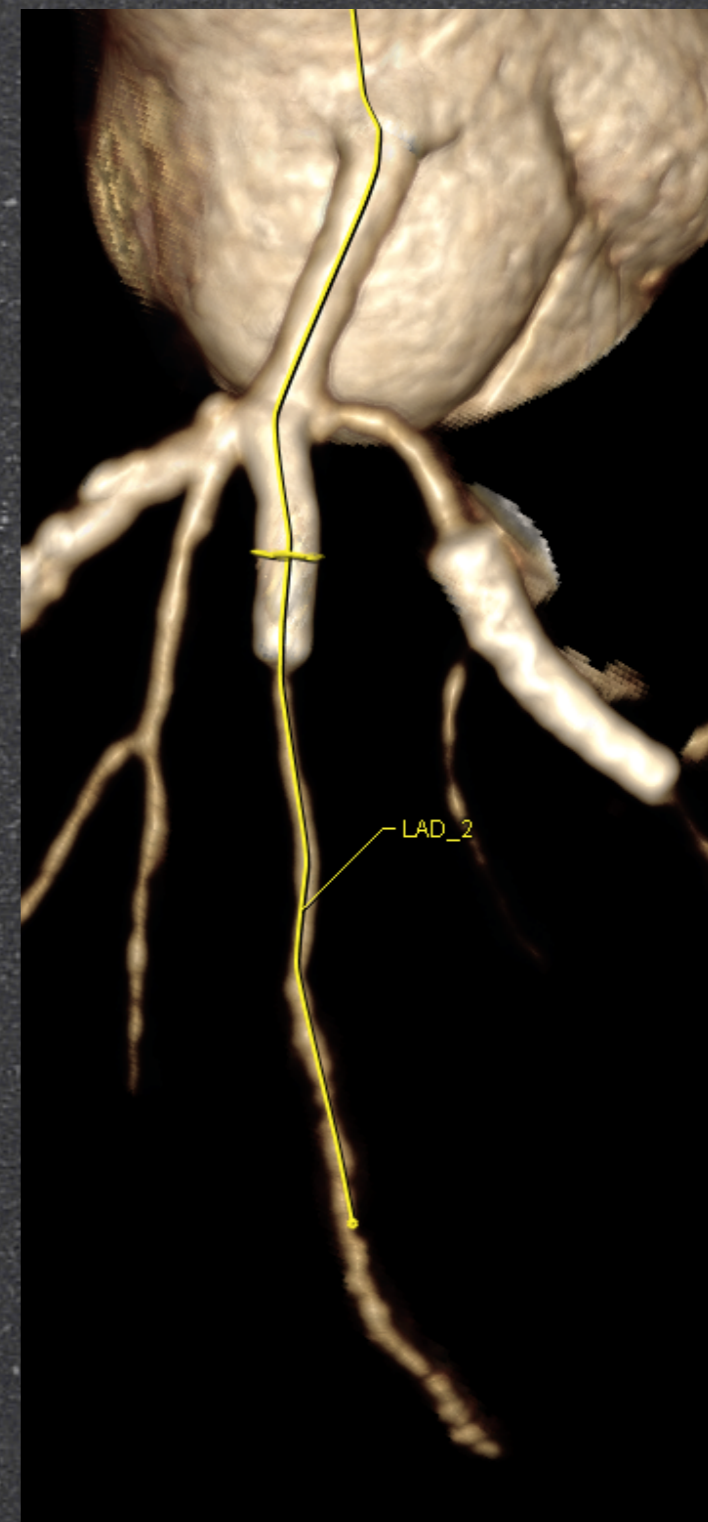
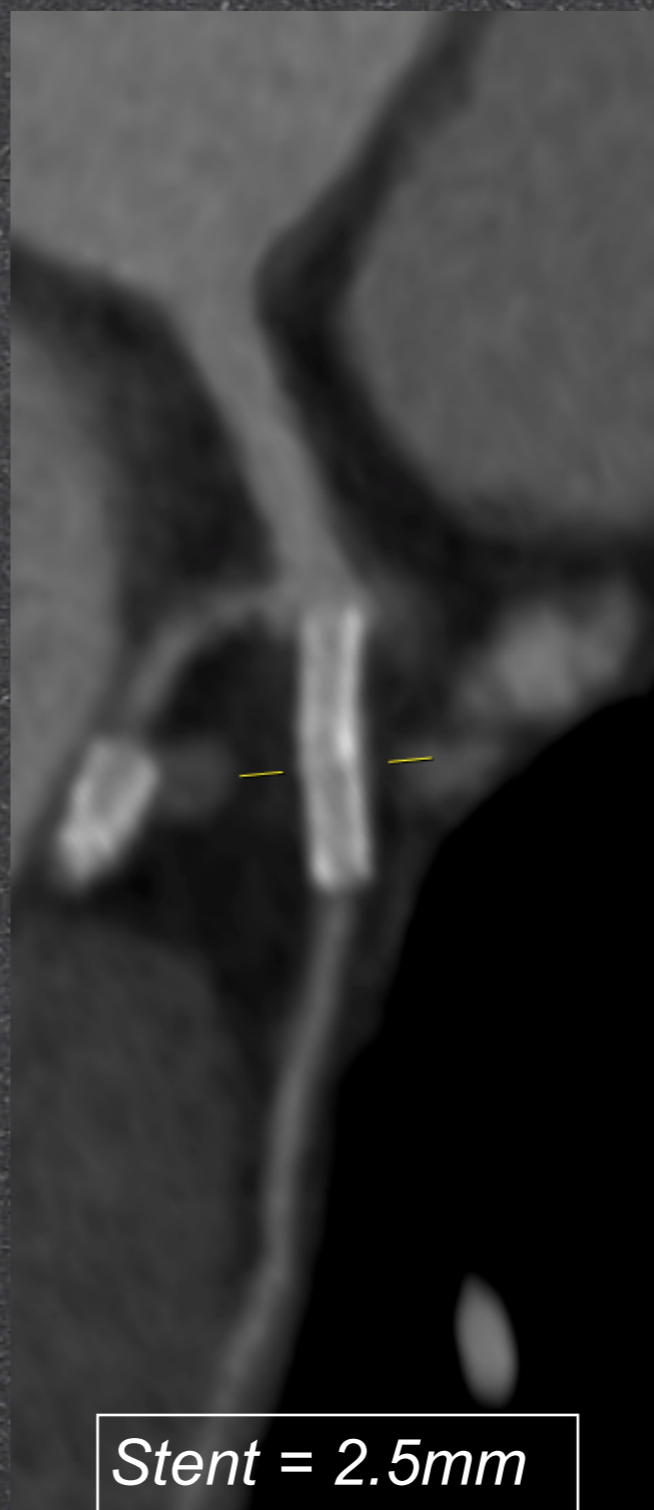
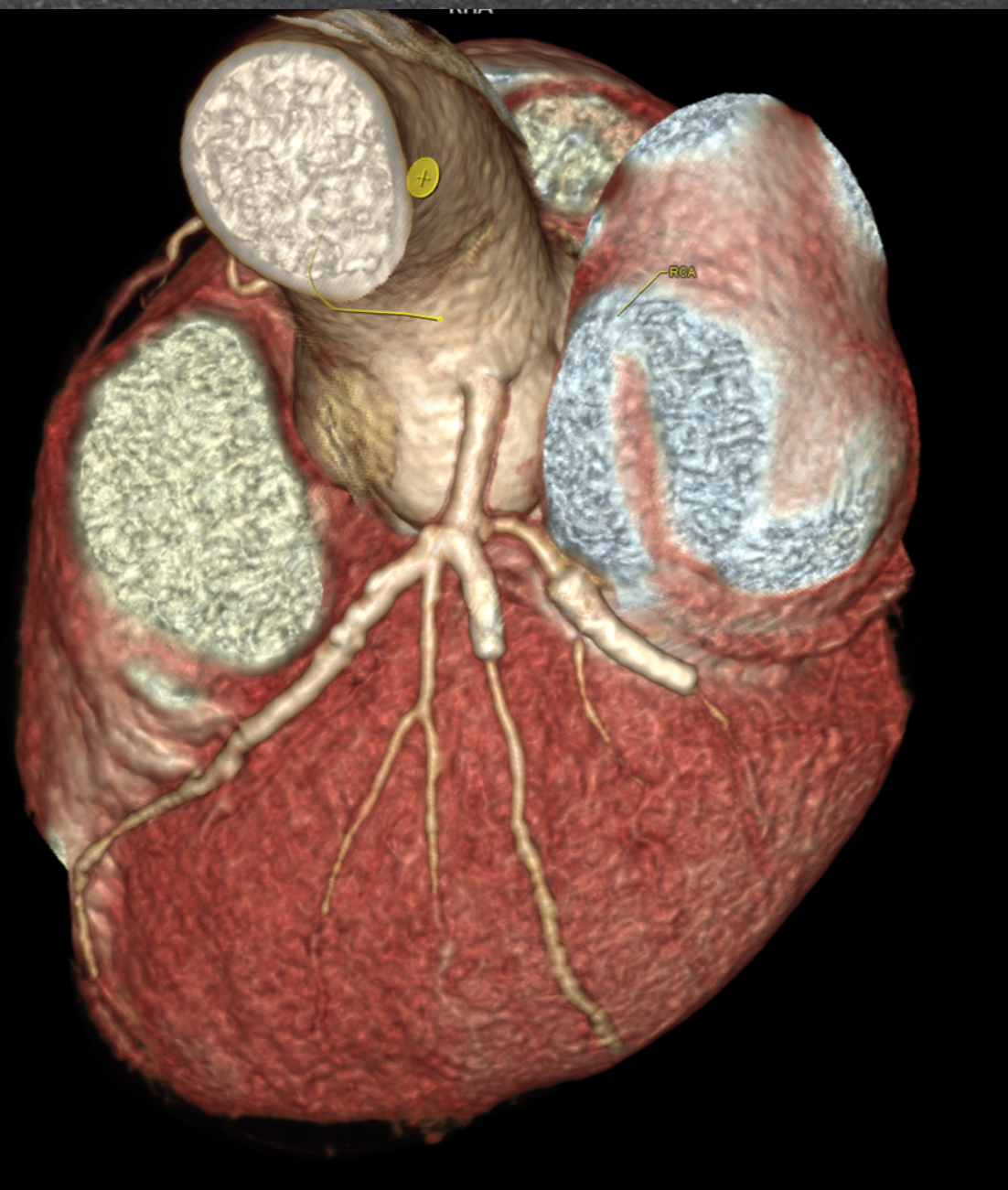
**Con**

**< 3mm**

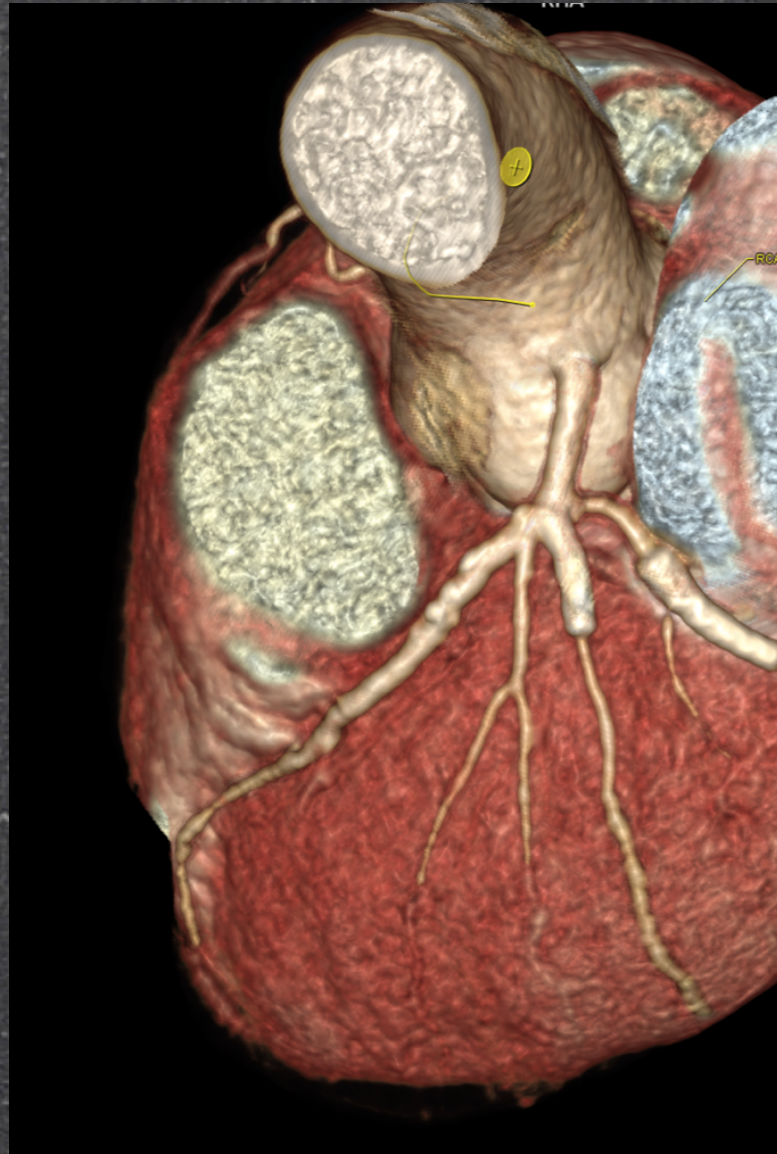


*Résolution spatiale = 0.23mm*

# Contrôle Stents < 3mm



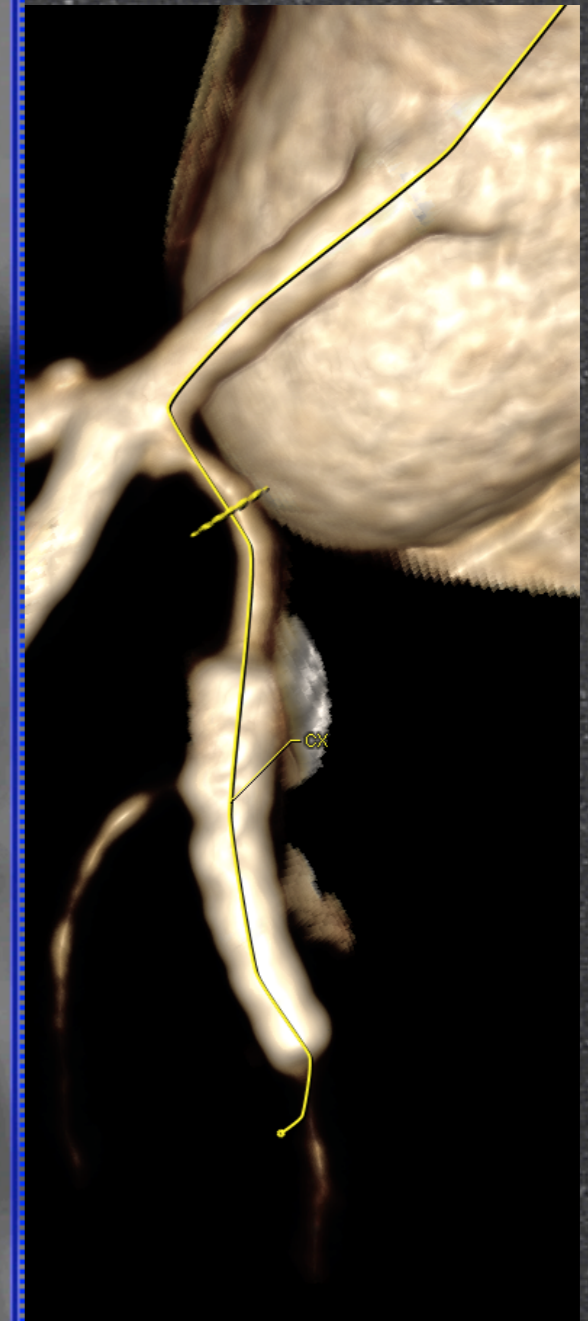
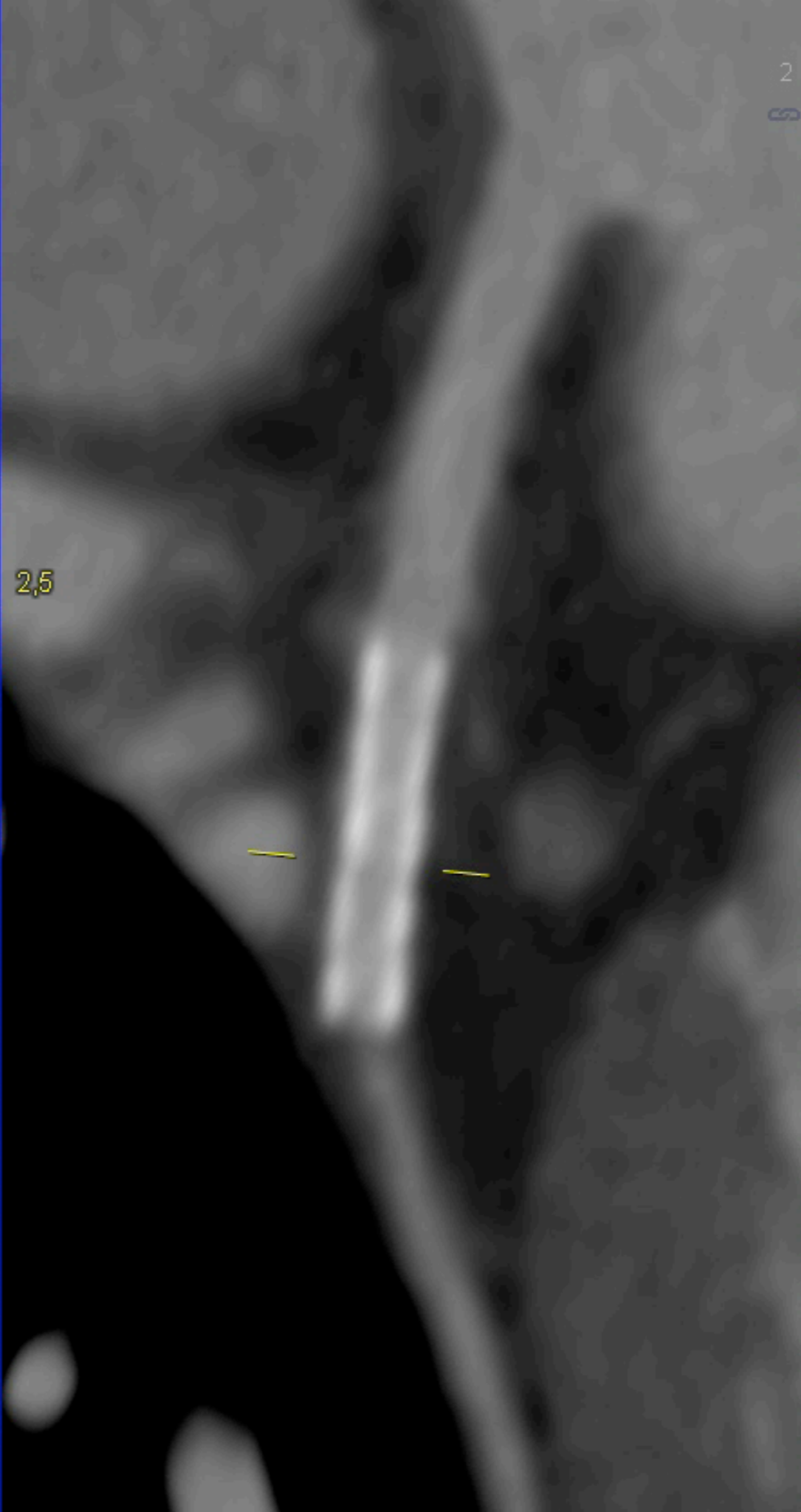
**Cont**



2,5

2  
3

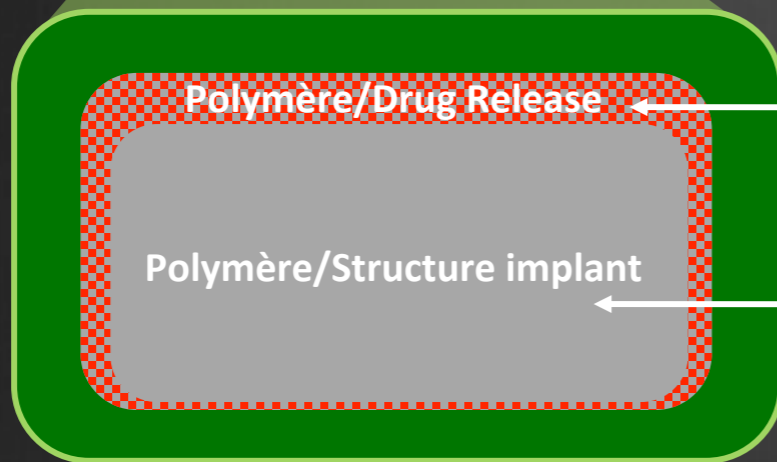
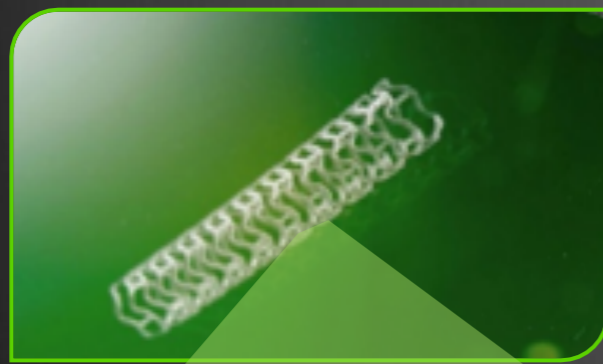
**3mm**



Stent = 2.25mm

# Stents Biorésorbables

## Polymère biorésorbable



Revêtement PDLLA/Everolimus

- **Couche fine**
- **Amorphe (non-crystalline)**
- **1:1 ratio Everolimus/PDLLA**
- **Libération contrôlée de la drogue**

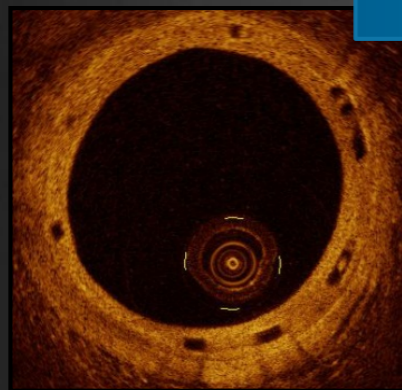
Acide Polylactique

- **Semi-cristallin**
- **Structure de l'implant**
- **Force radiale**

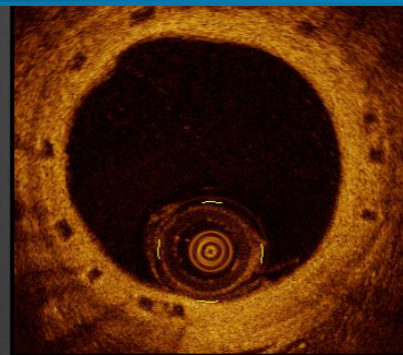
# Stents Biorésorbables

## Resorption: Response Vasculaire

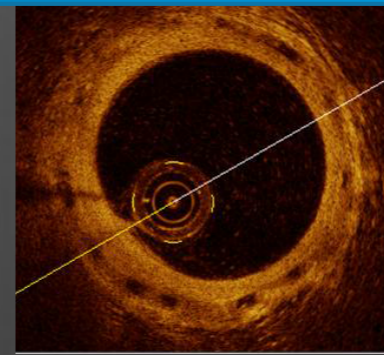
Le Polymère dégradé est d'abord remplacé par la matrice extracellulaire puis par des cellules musculaires lisses



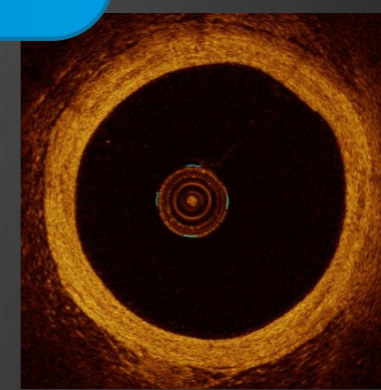
6 months



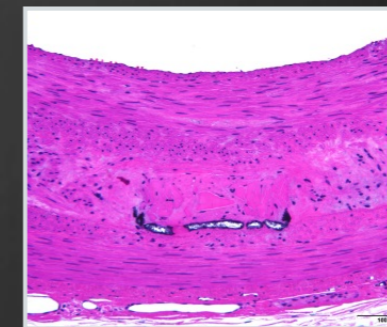
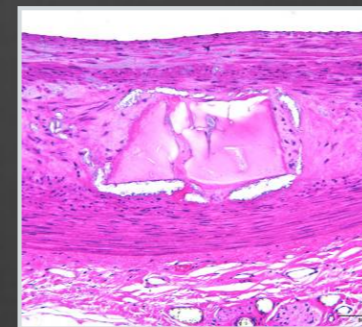
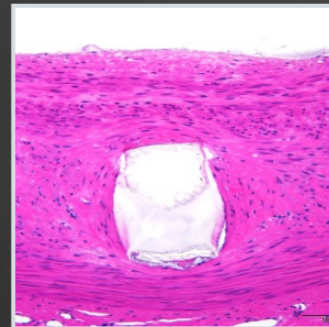
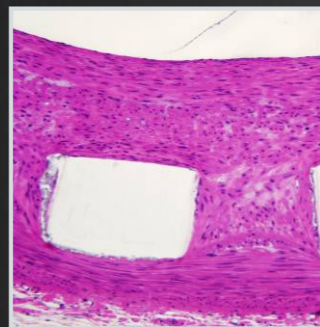
24 months



36 months



42 months



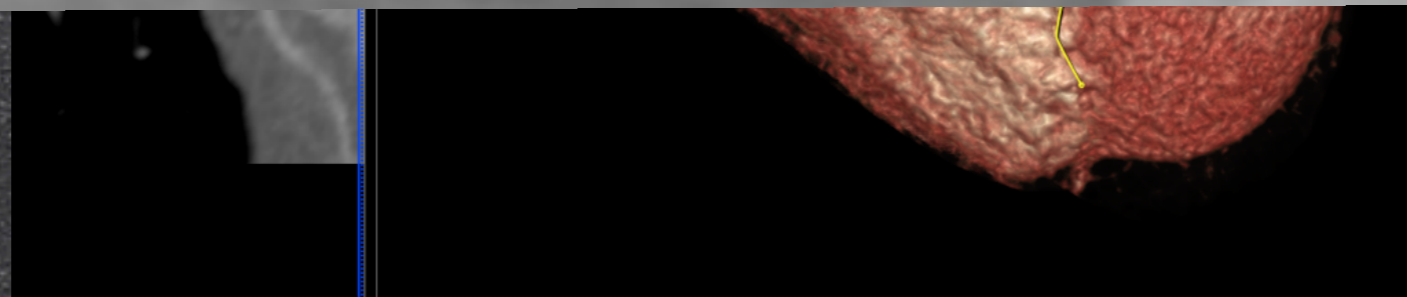
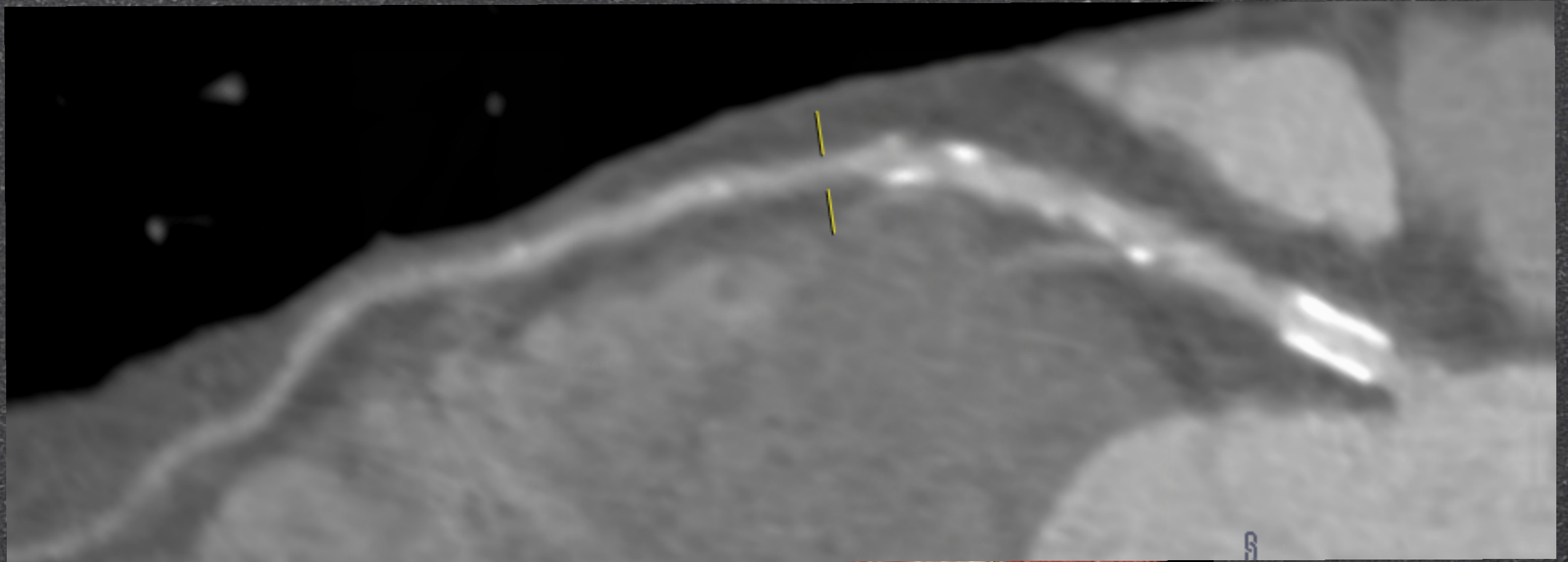
Representative photomicrographs of porcine coronary arteries, 20x, Hematoxylin and Eosin

Images on file with Abbott Vascular

**Cohort B, Preclinical OCT Images**

*DT atypiques à M15*

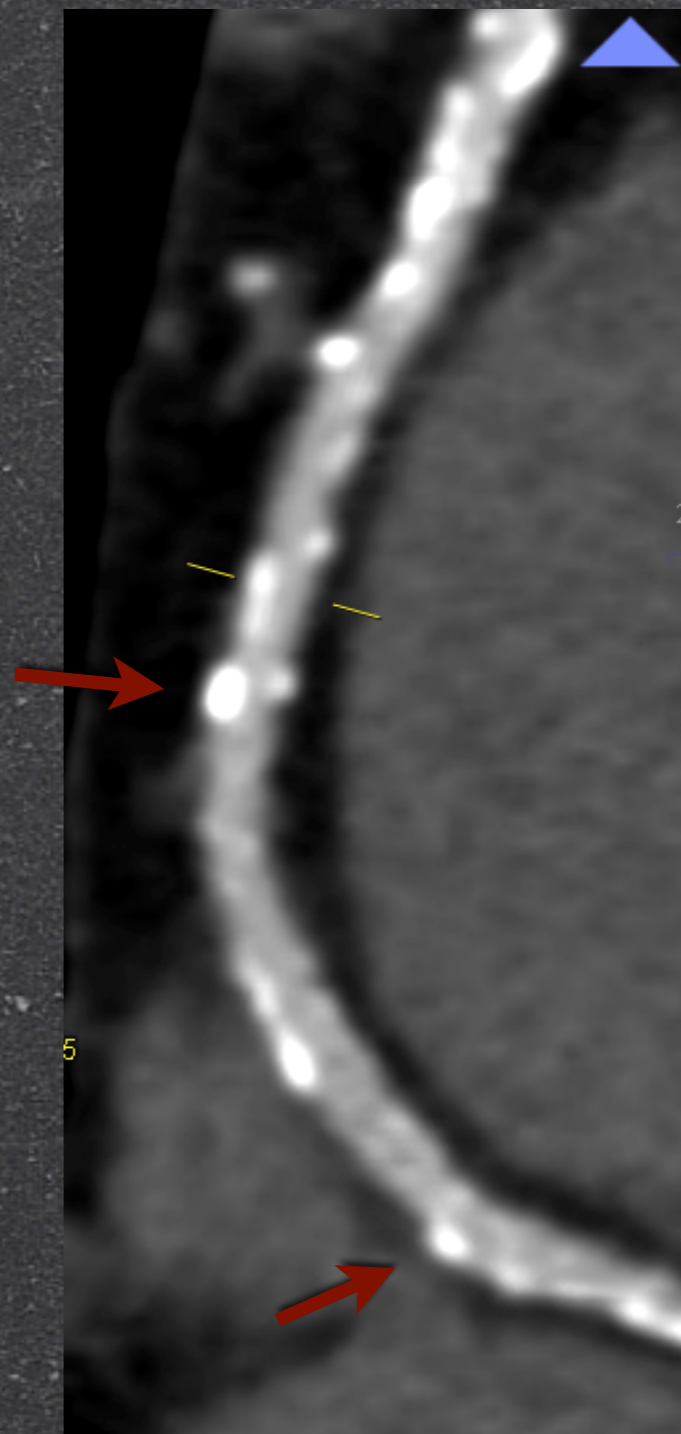
*Scanner Coronaire*



*Pesenti-Rossi D et al. ANCAAN 2014*



# *Stents Biorésorbables*



# ***Take Home Messages***

## ***Analyse des Stents par Scanner***

***\*Stents TCG ou  $> 3\text{mm}$  (Reco)***

***\*Stents  $< 3\text{mm}$  (possible techniquement)***

***\*Stents Biorésorbables (+++)***