HIGH TECH MARSEILLE

1·2·3 FÉVRIER 2023

MARSEILLE·PALAIS DU PHARO

Un cas de tronc commun

Préparation de la lésion Choix du stent

Frédéric BOUISSET [1,2]

1: CHU Toulouse Rangueil, Toulouse – France
2: OLV Cardiovascular center, Aalst – Belgium

Statement of financial interest

Speaker's name : Frédéric Bouisset

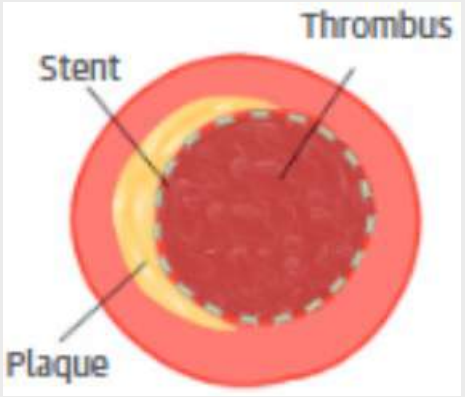
☑ I have the following potential conflicts of interest to report:

Consultant : Amgen, B-Braun, Boston Scientific

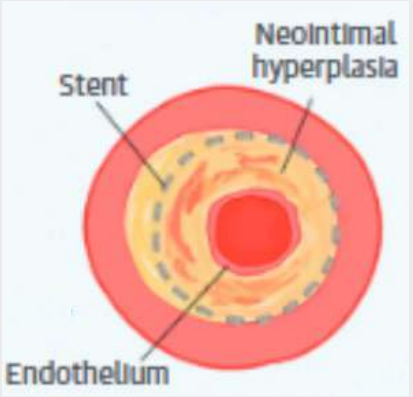
Préparation de la lésion

Pourquoi préparer la lésion?

Résultats cliniques



Thrombose

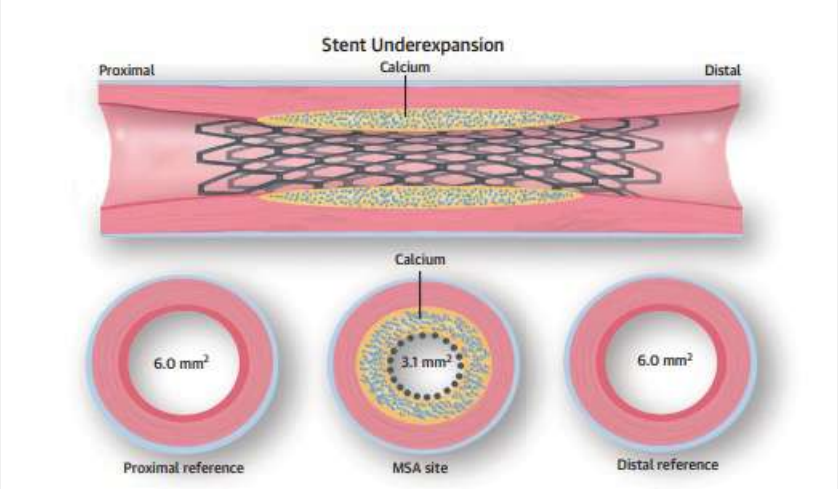


Resténose

Pourquoi préparer la lésion?

Expansion du stent

Résultats cliniques

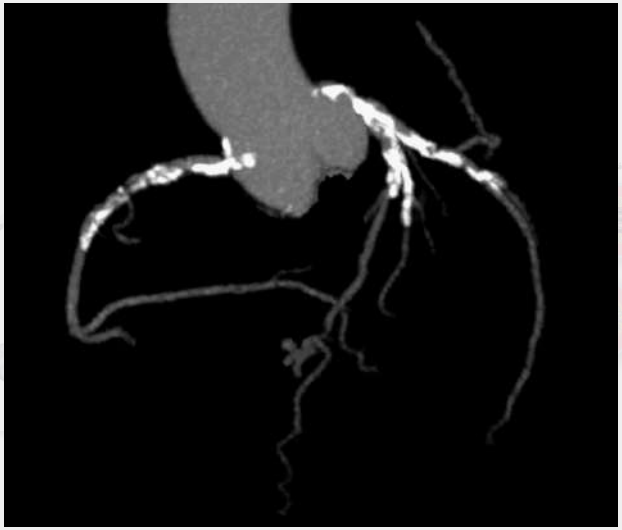


Pourquoi préparer la lésion?

Préparation de la lésion → ansion du stent → Résultats cliniques

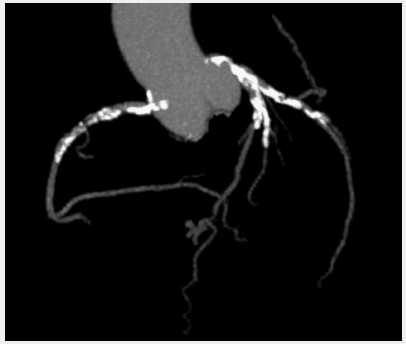
Pourquoi préparer la lésion?

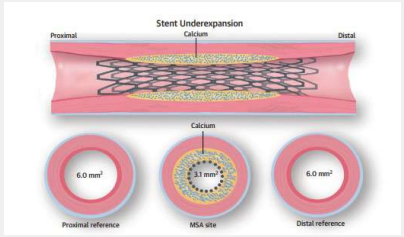
Préparat… la lés… | **Lésions résistantes** | …ansion du stent → Résultats cliniques

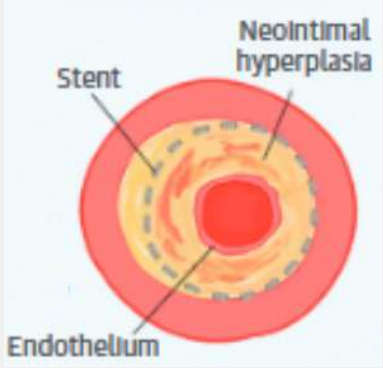


Pourquoi préparer la lésion?

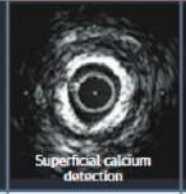
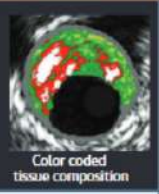
Lésions résistantes → **Préparation de la lésion** → **Expansion du stent** → **Résultats cliniques**







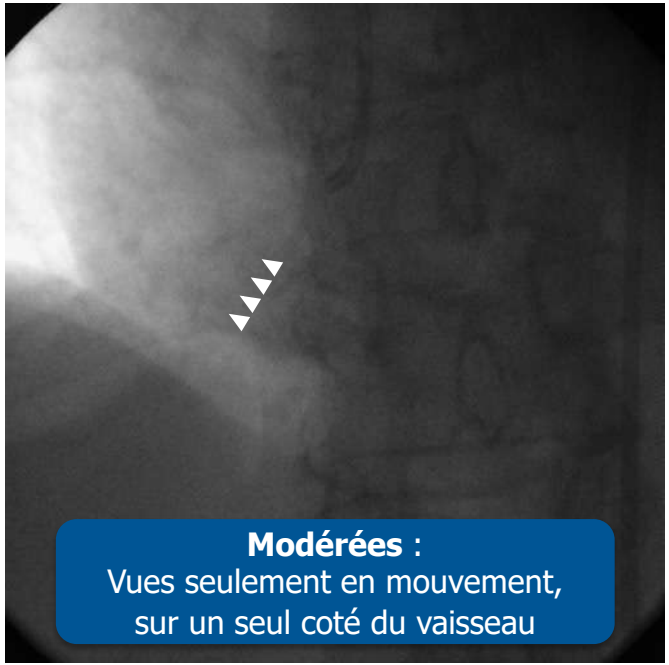
Identifier les lésions résistantes

	Coronary Angiography	CT	IVUS	RF-IVUS (IVUS-VH)	OCT
IMAGING MODALITIES			 Superficial calcium detection	 Color coded tissue composition	 Sharp delineation of calcium area is possible
Detection of coronary artery calcium	+	+++	+++	+++	++++
Localization of coronary artery calcium	+	+++	+++	+++	++++
Quantification of coronary artery calcium	+	+++	++	+++	++++
					

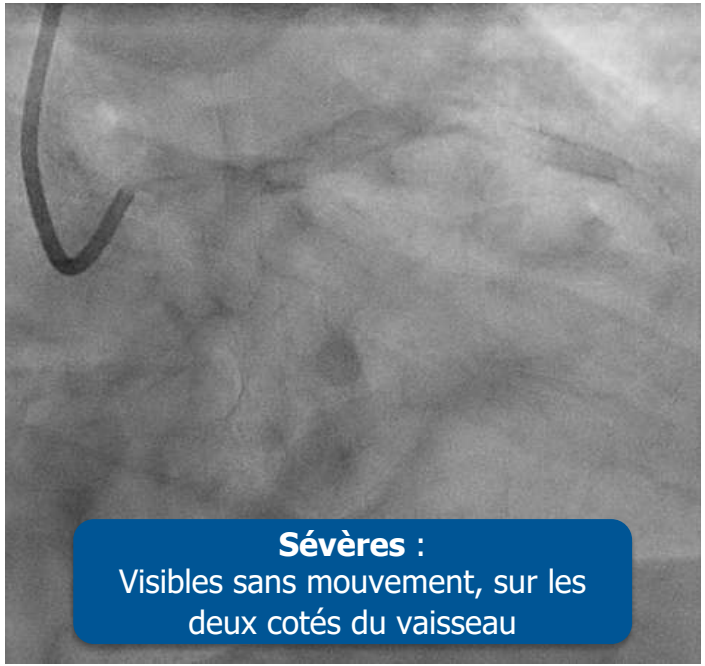
Mintz G et al JACC CI 2015

Identifier les lésions résistantes

Angiographie Coronaire



Modérées :
Vues seulement en mouvement, sur un seul coté du vaisseau

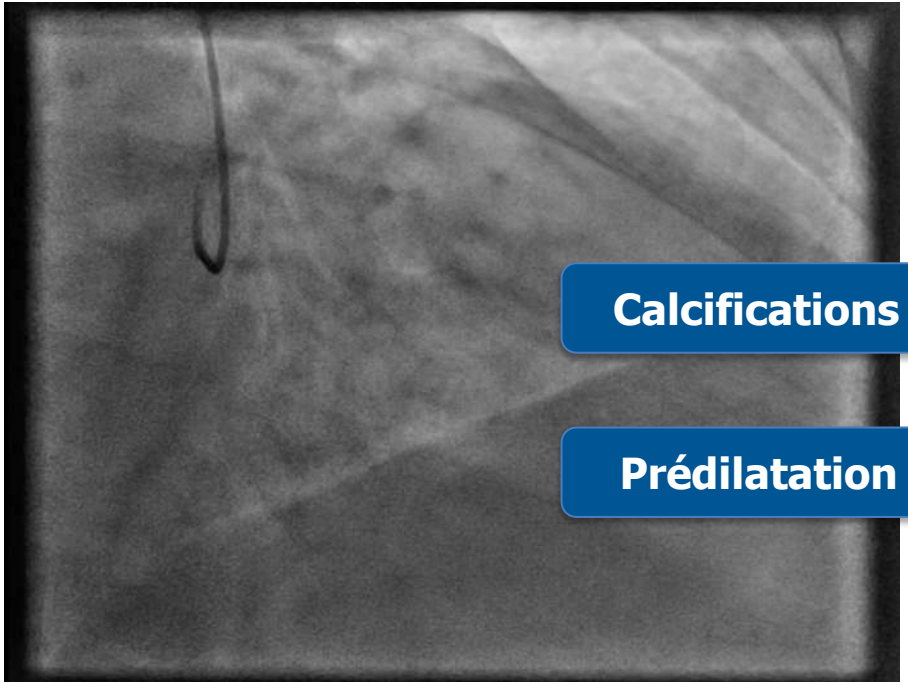


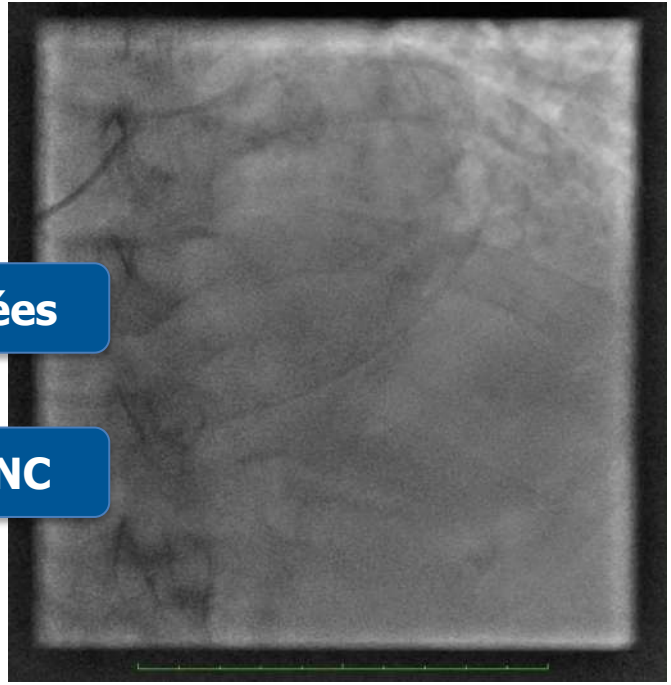
Sévères :
Visibles sans mouvement, sur les deux cotés du vaisseau

Le réhausseur de stent

En cas de doute (qualité d'image, doute avec un ancien stent…)

Notre cas du jour

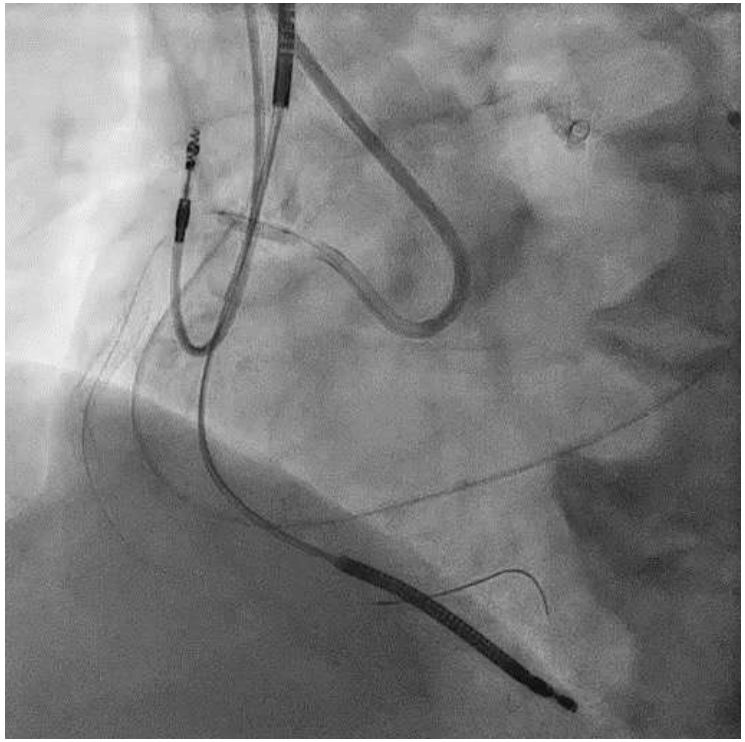




Calcifications modérées

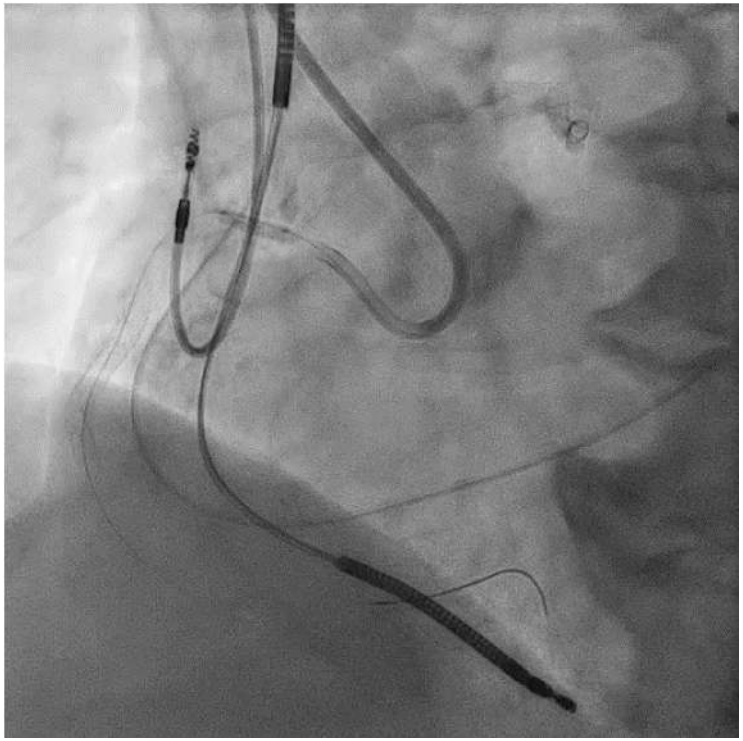
Prédilatation ballon NC

L’efficacité de la préparation



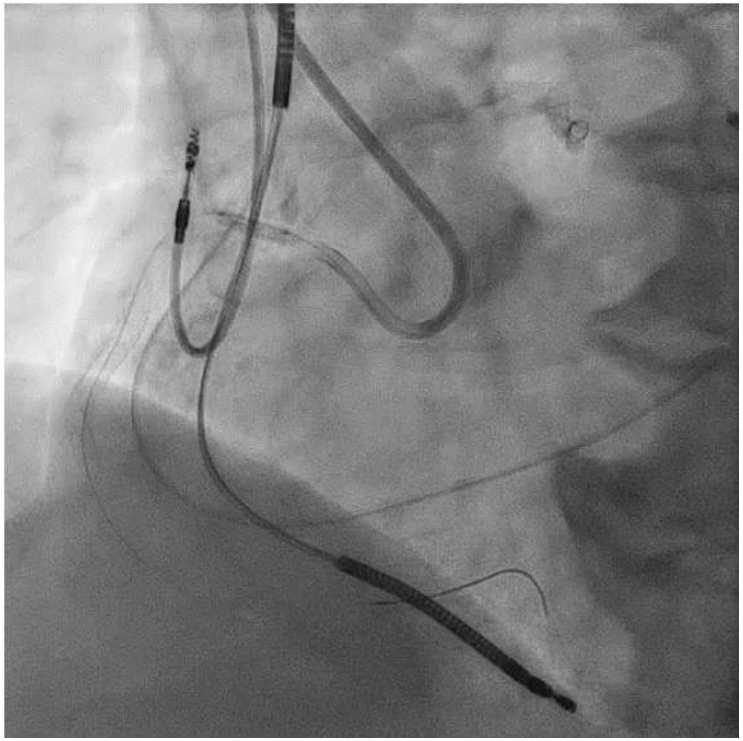
Courtesy of Ziad Ali

L’efficacité de la préparation

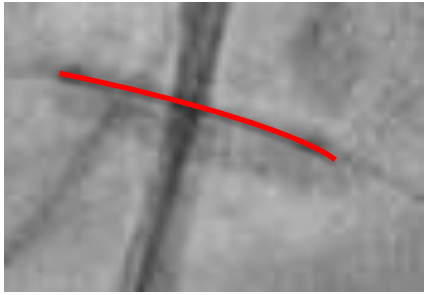


Courtesy of Ziad Ali

L’efficacité de la préparation



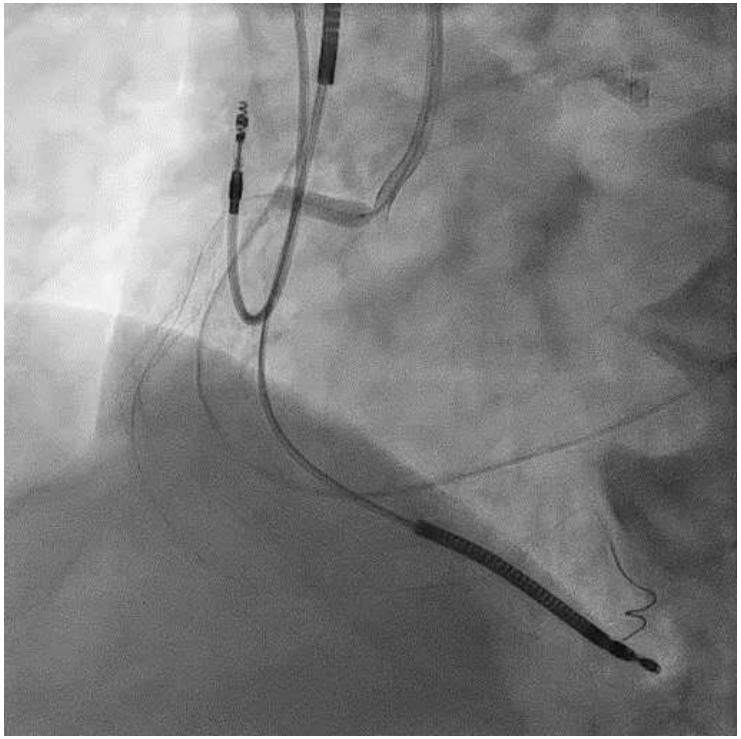
Préparation insuffisante



Expansion du ballon excentrique

Courtesy of Ziad Ali

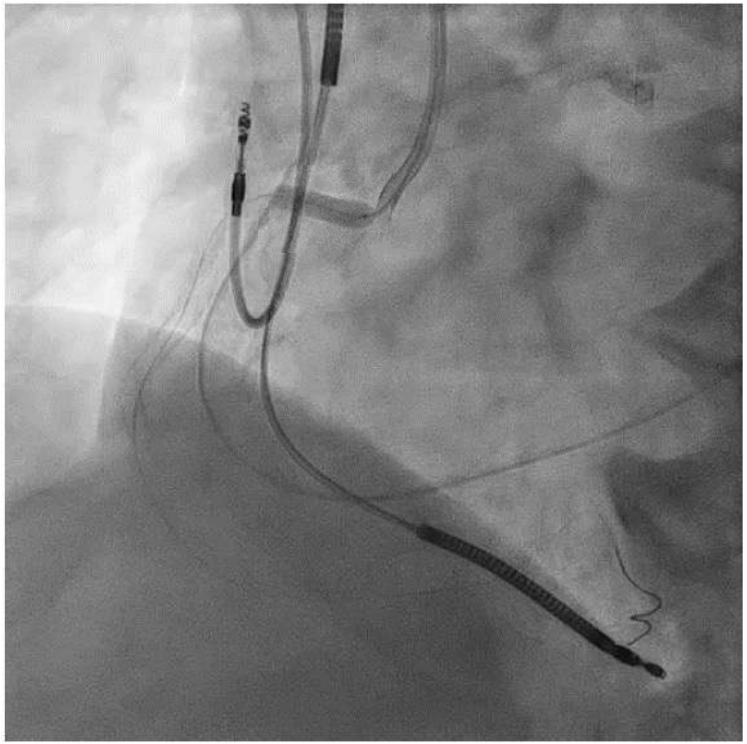
L’efficacité de la préparation



Après 8 cycles de lithotripsie intra coronaire et ballon NC 20 ATM

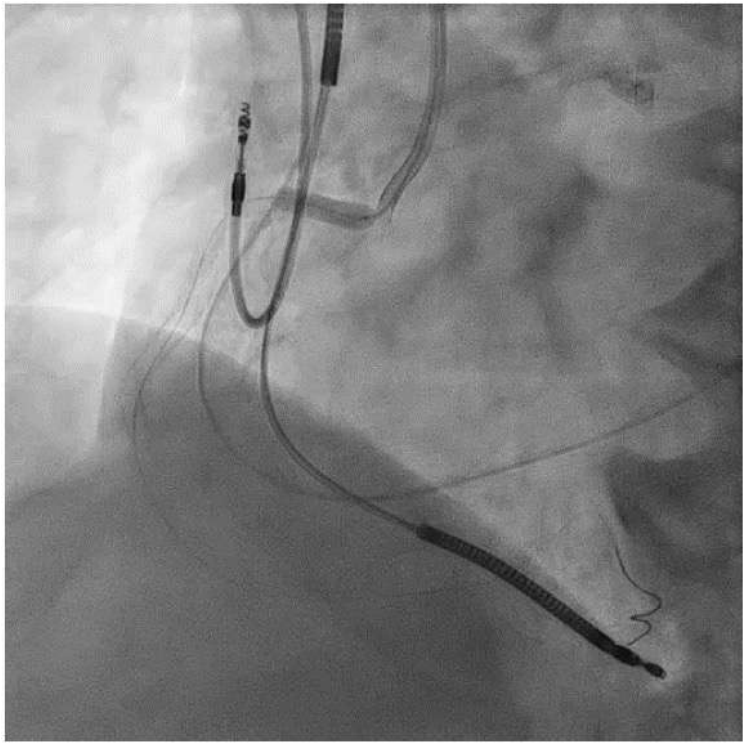
Courtesy of Ziad Ali

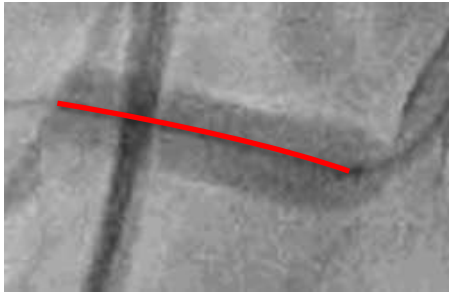
L’efficacité de la préparation



Courtesy of Ziad Ali

L’efficacité de la préparation

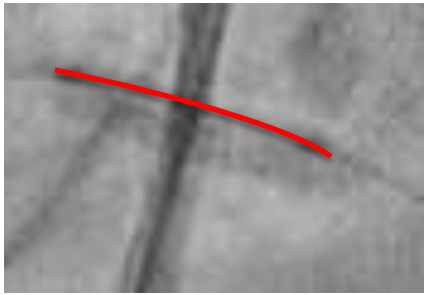




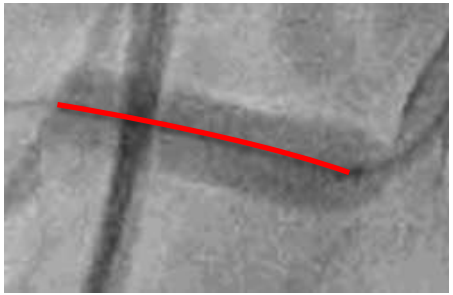
Expansion du ballon concentrique

Courtesy of Ziad Ali

L’efficacité de la préparation



Expansion du ballon excentrique

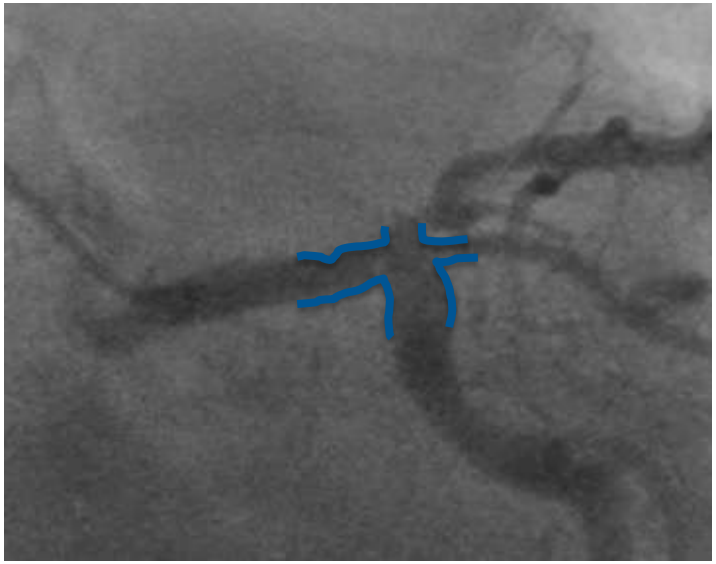


Expansion du ballon concentrique

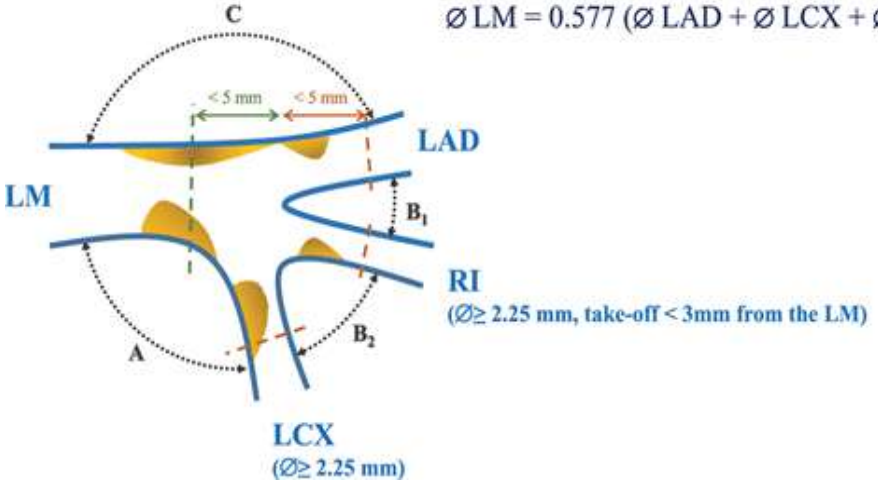
Courtesy of Ziad Ali

Le choix du stent

Le choix du stent

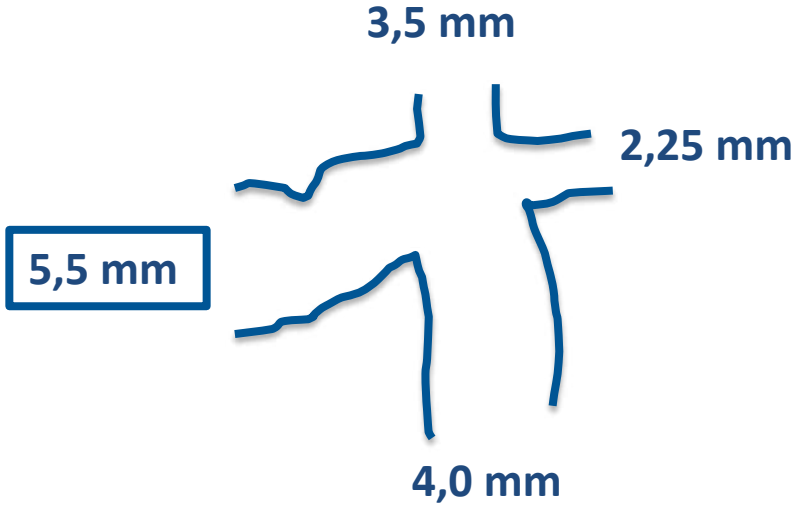


Le choix du stent



Finet's law

$\varnothing LM = 0.577 (\varnothing LAD + \varnothing LCX + \varnothing RI)$



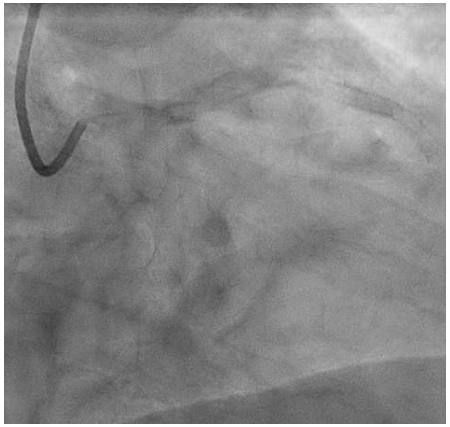
Le choix du stent

Vérifier la table de compliance de l'endoprothèse

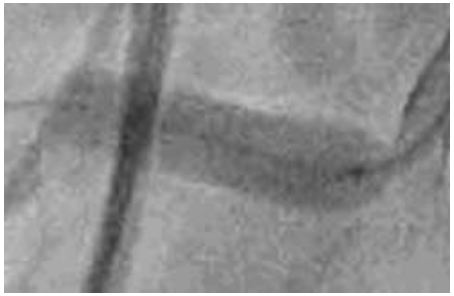
Diamètre = + 57 %

Conclusion, TCG distal calcifié

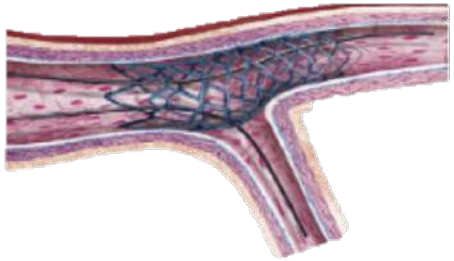
Evaluer le degré de calcification et préparer en fonction



S'assurer de l'efficacité de la préparation



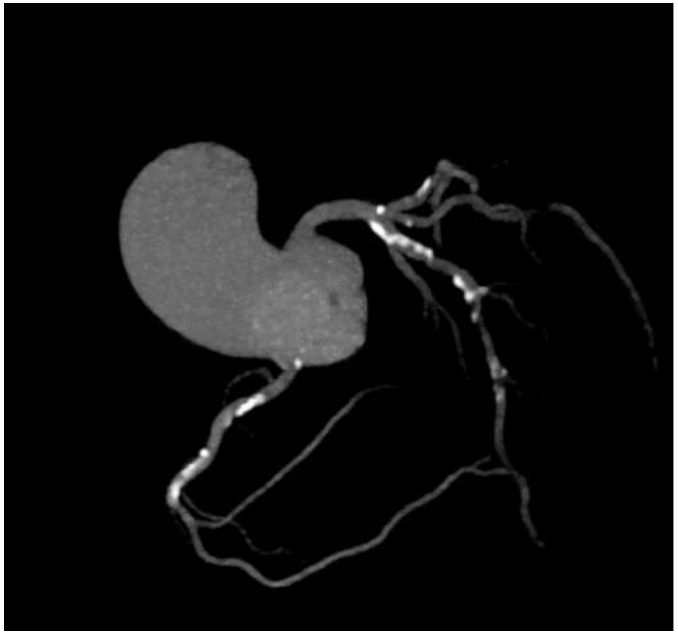
Choisir un stent compatible avec la surexpansion

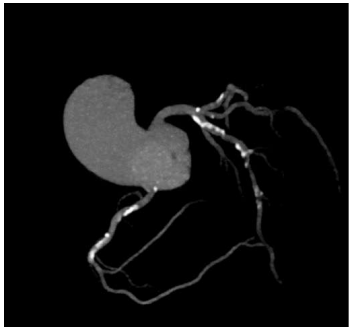


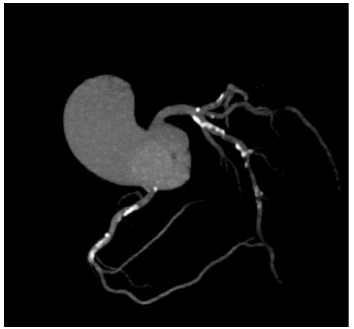
Back-up slides

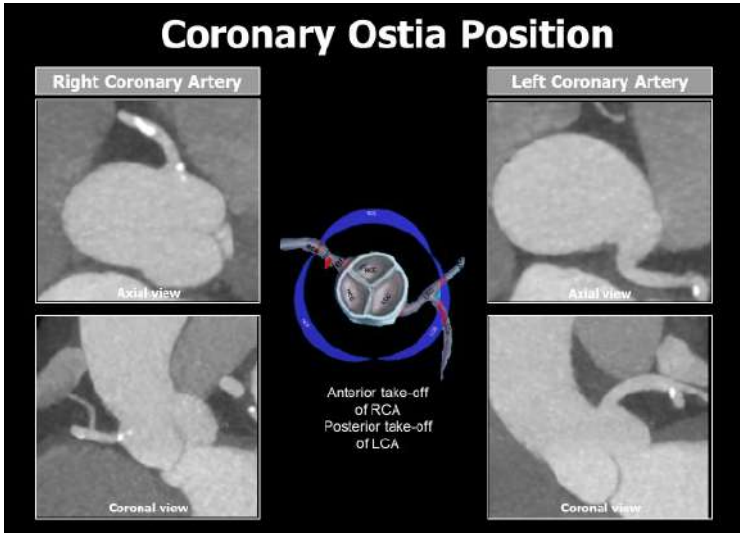
CoreAalst
At the heart of innovation

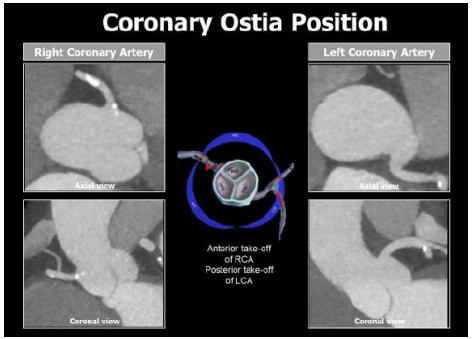
CT-guided PCI

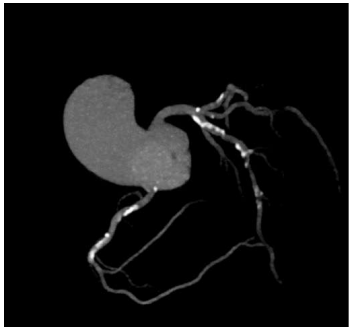


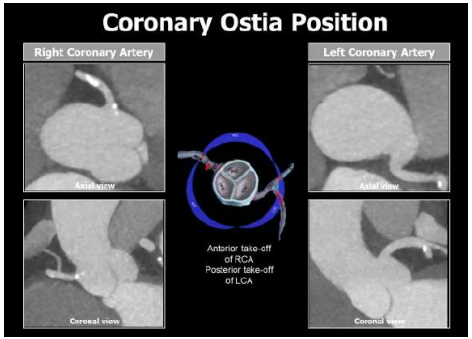


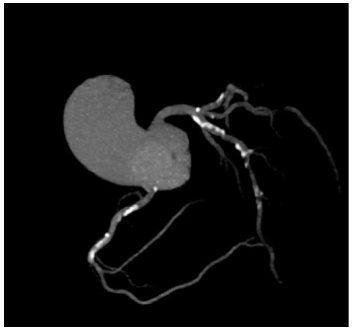


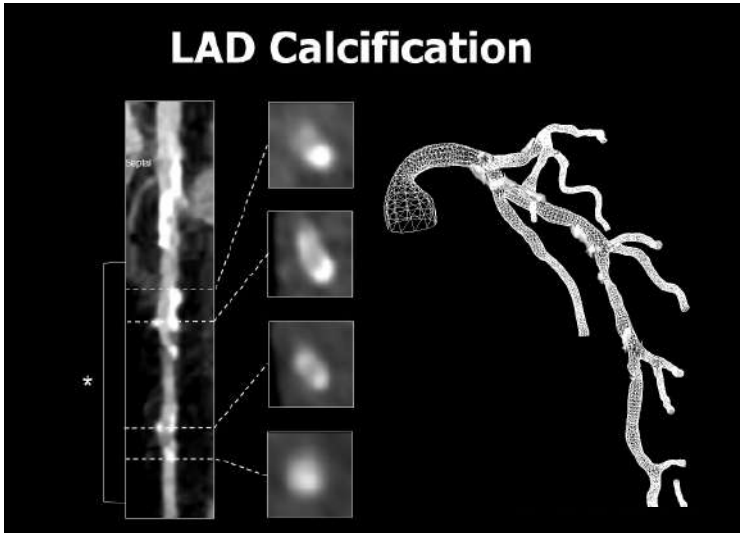

Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Axial view
Axial view
Anterior take-off
of RCA
Posterior take-off
of LCA
Coronal view
Coronal view

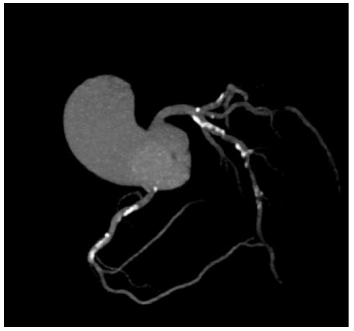

Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Axial view
Axial view
Coronal view
Coronal view
Anterior take-off
of RCA
Posterior take-off
of LCA

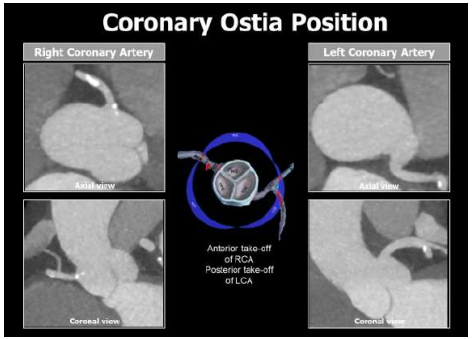


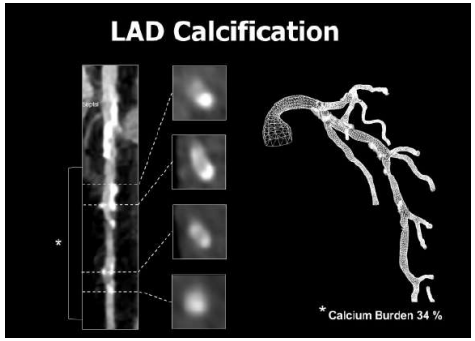

Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Anterior take-off of RCA
Posterior take-off of LCA

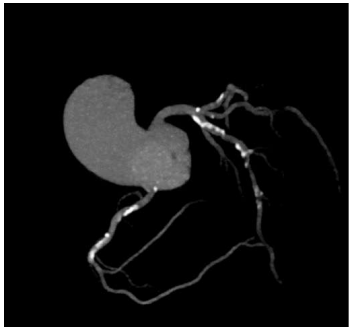


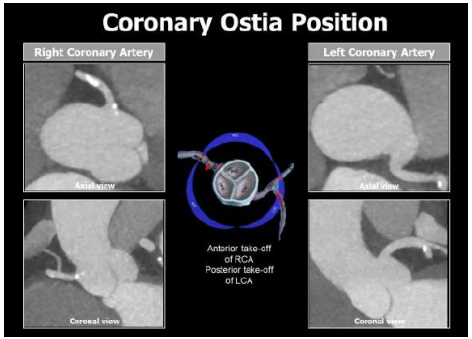

LAD Calcification

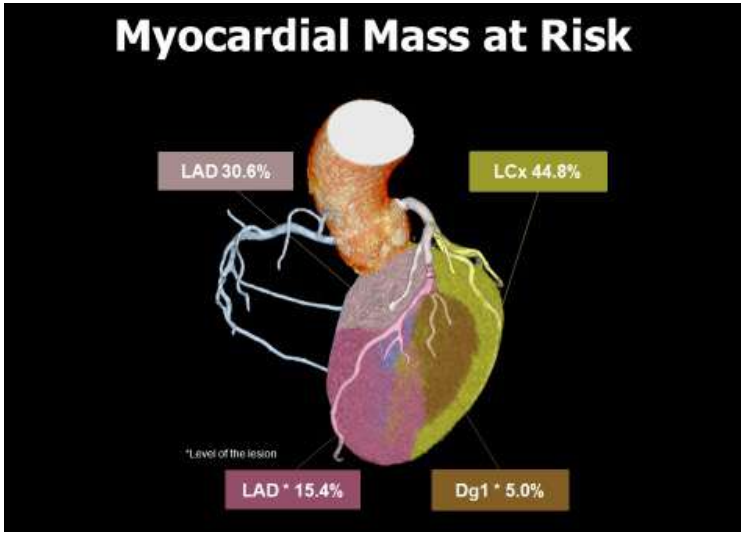


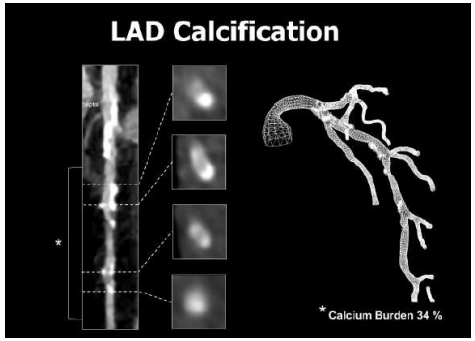

Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Axial view
Axial view
Coronal view
Coronal view
Anterior take-off of RCA
Posterior take-off of LCA

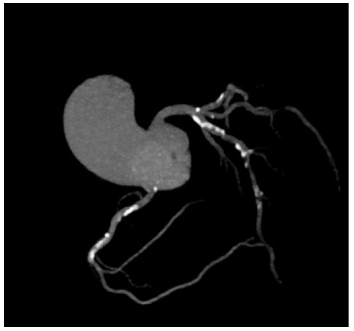

LAD Calcification
*
* Calcium Burden 34 %

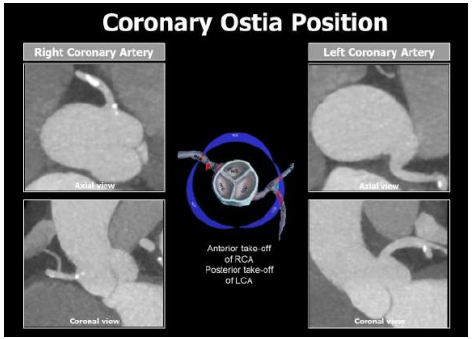


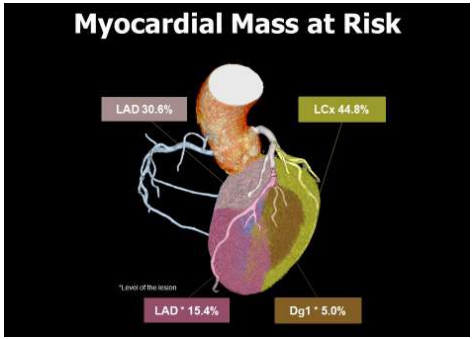

Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Axial view
Axial view
Anterior take-off of RCA
Posterior take-off of LCA
Coronal view
Coronal view

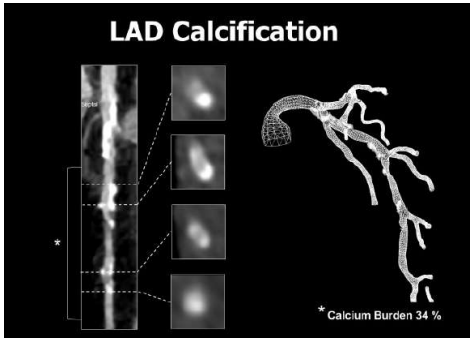

Myocardial Mass at Risk
LAD 30.6%
LCx 44.8%
*Level of the lesion
LAD * 15.4%
Dg1 * 5.0%

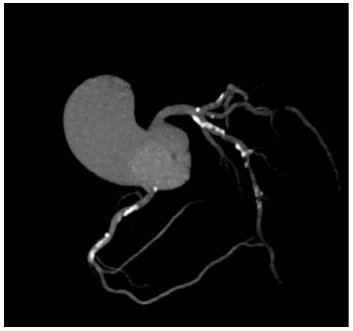

LAD Calcification
*
* Calcium Burden 34 %

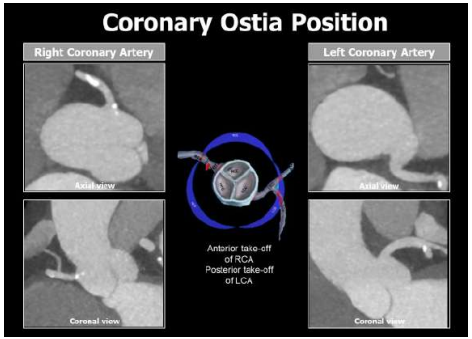


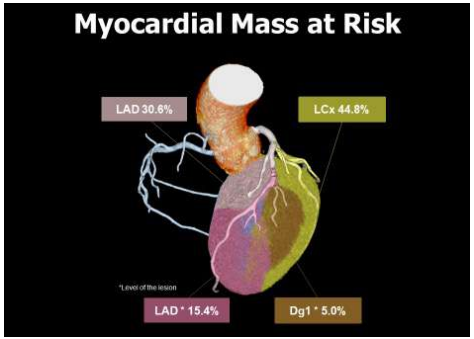

Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Axial view
Axial view
Coronal view
Coronal view
Anterior take-off of RCA
Posterior take-off of LCA

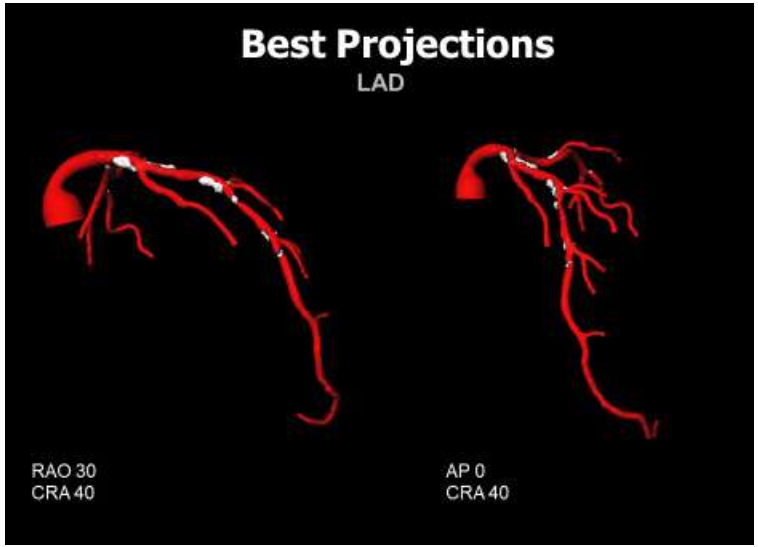

Myocardial Mass at Risk
LAD 30.6%
LCx 44.8%
*Level of the lesion
LAD * 15.4%
Dg1 * 5.0%

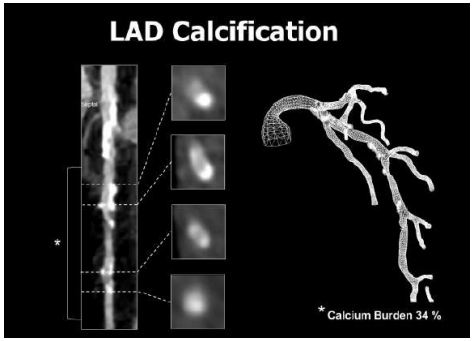

LAD Calcification
* Calcium Burden 34 %

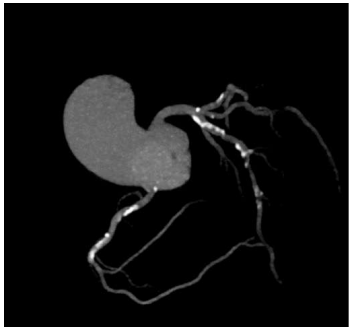


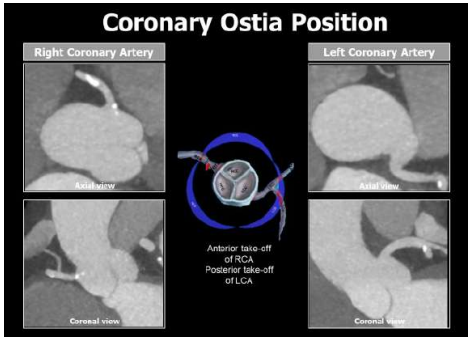

Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Axial view
Axial view
Anterior take-off of RCA
Posterior take-off of LCA
Coronal view
Coronal view

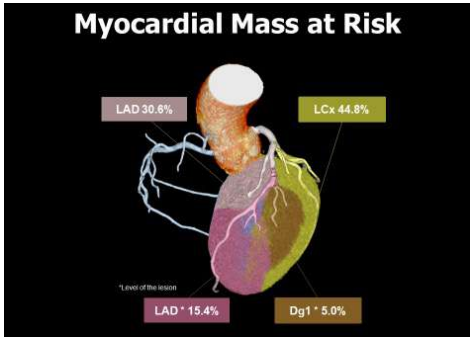

Myocardial Mass at Risk
LAD 30.6%
LCx 44.8%
*Level of the lesion
LAD * 15.4%
Dg1 * 5.0%

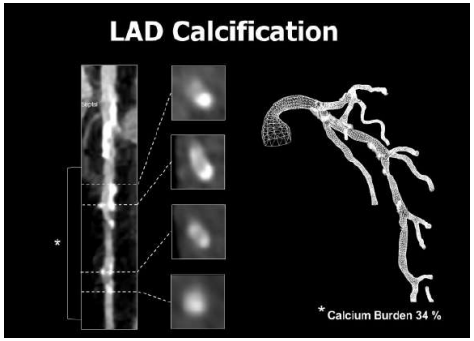

Best Projections
LAD
RAO 30
CRA 40
AP 0
CRA 40

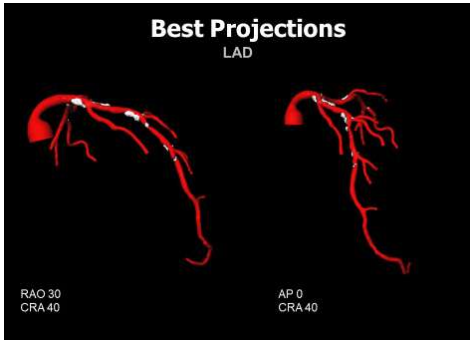

LAD Calcification
* Calcium Burden 34 %

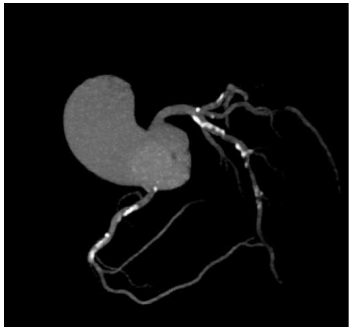


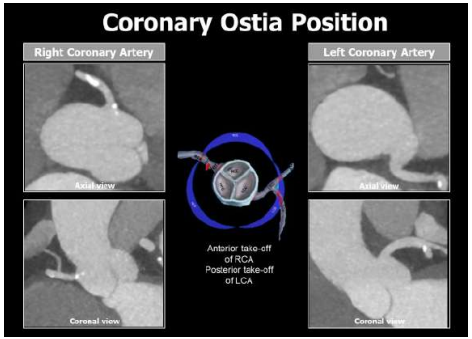

Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Axial view
Axial view
Anterior take-off of RCA
Posterior take-off of LCA
Coronal view
Coronal view

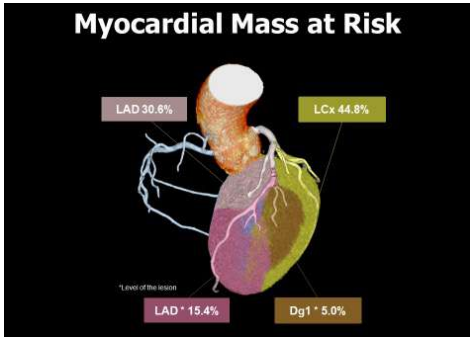

Myocardial Mass at Risk
LAD 30.6%
LCx 44.8%
*Level of the lesion
LAD * 15.4%
Dg1 * 5.0%

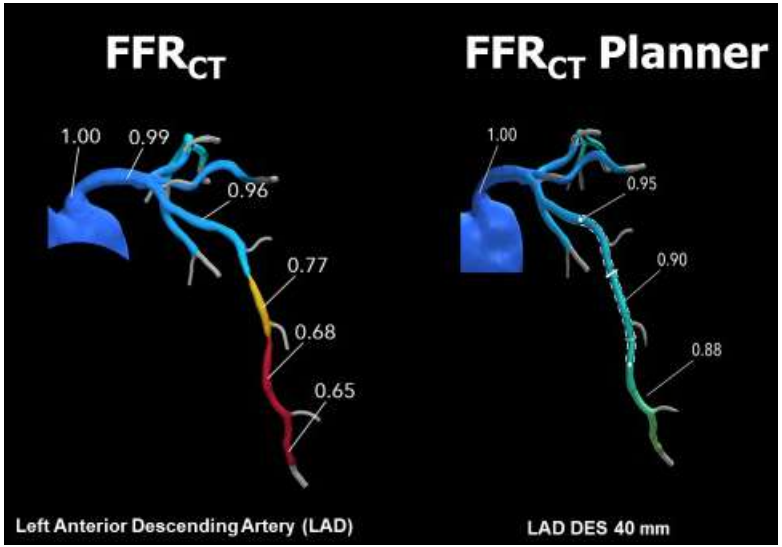

LAD Calcification
*
* Calcium Burden 34 %

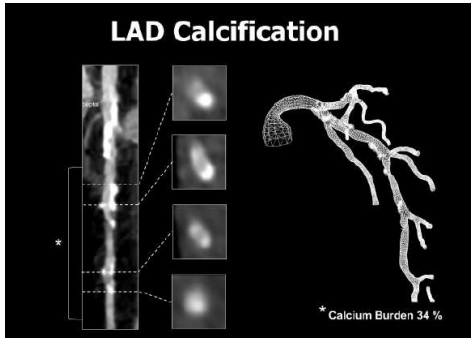

Best Projections
LAD
RAO 30
CRA 40
AP 0
CRA 40

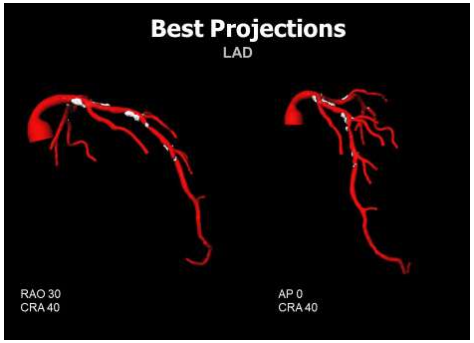


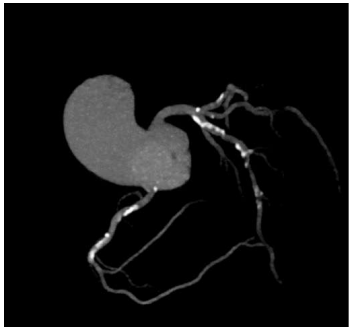

Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Axial view
Axial view
Anterior take-off of RCA
Posterior take-off of LCA
Coronal view
Coronal view

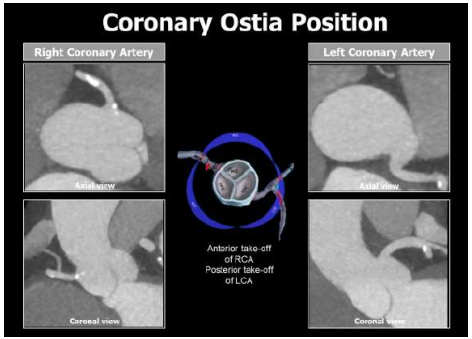

Myocardial Mass at Risk
LAD 30.6%
LCx 44.8%
LAD * 15.4%
Dg1 * 5.0%

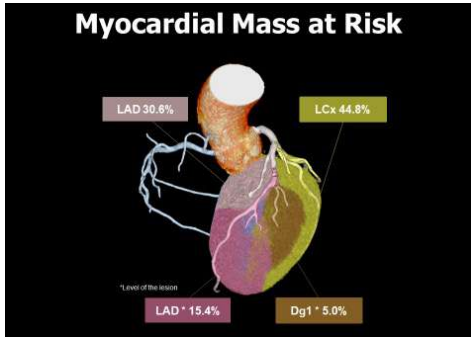

FFRCT
FFRCT Planner
1.00
0.99
0.96
0.77
0.68
0.65
1.00
0.95
0.90
0.88
Left Anterior Descending Artery (LAD)
LAD DES 40 mm

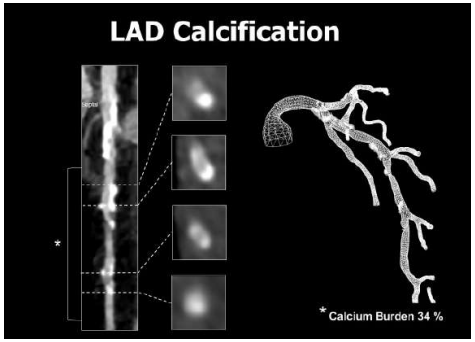

LAD Calcification
* Calcium Burden 34 %

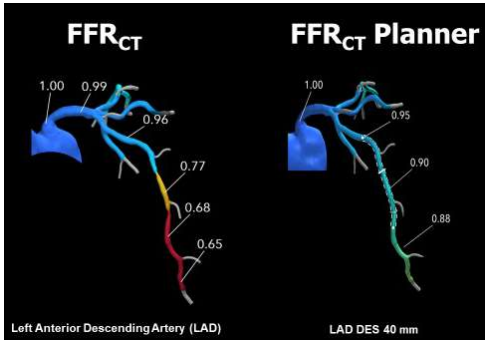

Best Projections
LAD
RAO 30
CRA 40
AP 0
CRA 40

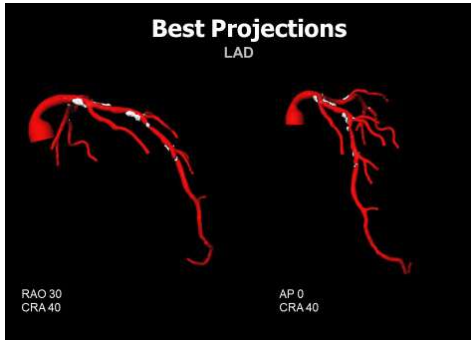



Coronary Ostia Position
Right Coronary Artery
Left Coronary Artery
Axial view
Axial view
Coronal view
Coronal view
Anterior take-off of RCA
Posterior take-off of LCA


Myocardial Mass at Risk
LAD 30.6%
LCx 44.8%
*Level of the lesion
LAD * 15.4%
Dg1 * 5.0%


LAD Calcification
* Calcium Burden 34 %


FFRCT
FFRCT Planner
1.00
0.99
0.96
0.77
0.68
0.65
1.00
0.95
0.90
0.88
Left Anterior Descending Artery (LAD)
LAD DES 40 mm


Best Projections
LAD
RAO 30
CRA 40
AP 0
CRA 40