12ème Congrès International de Cardiologie "CARDIOBIOTEC"

28-29- AVRIL 2023

à l'Hôtel Hilton Monastir-Tunisie

EuroMed Cardio XIV

Avec la participation du GRCI et de l'AFPRC

GRCI

GROUPE DE REFLEXION SUR LA CARDIOLOGIE INTERVENTIONNELLE

CARDIOBIOTEC 2023

Angioplastie des anomalies de connexion des artères coronaires

Pierre AUBRY pour le groupe ANOCOR

ASSISTANCE PUBLIQUE HÔPITAUX DE PARIS

HÔPITAUX UNIVERSITAIRES PARIS NORD VAL DE SEINE

Bichat - Claude-Bernard

anoCor

Groupement Hospitalier de Territoire

Saint-Denis Gonesse

Plaine de France

Liens d’intérêt potentiels : aucun

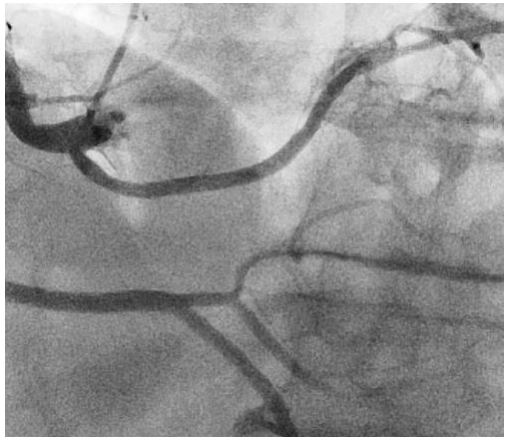
ASSISTANCE PUBLIQUE HÔPITAUX DE PARIS

HÔPITAUX UNIVERSITAIRES PARIS NORD VAL DE SEINE
Bichat - Claude-Bernard

anoCor

Groupement Hospitalier de Territoire
Saint-Denis Gonesse
Plaine de France

Rationnel

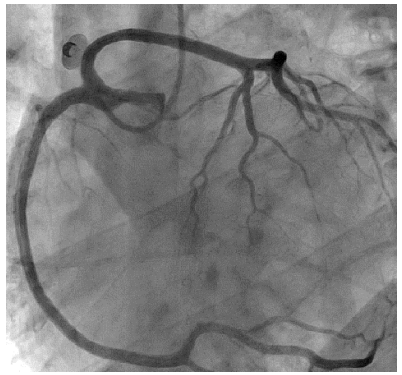


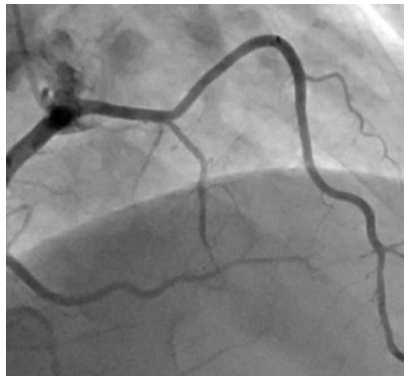
Circonflexe
- sinus droit
- coronaire droite

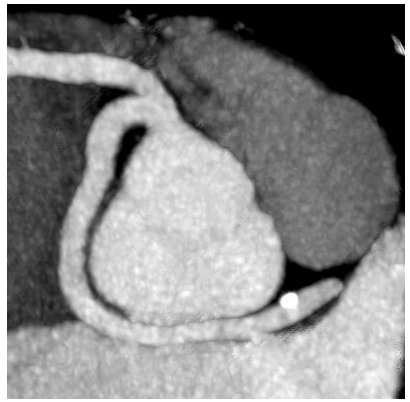
Prévalence angiographique
- 0.5/100

Coronaire droite
- sinus gauche

Prévalence angiographique
- 0.3/100







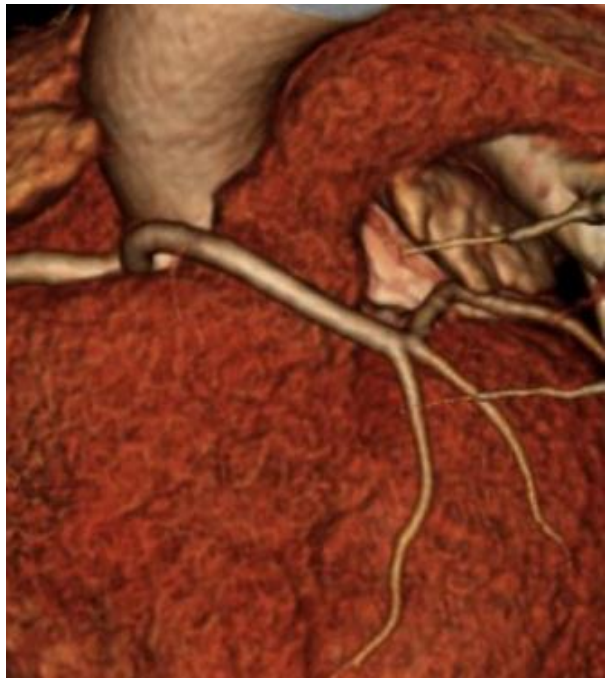
Tronc commun/IVA
- sinus droit
- coronaire droite

Prévalence angiographique
- 0.1/100

anoCor

Scanner coronaire

Trajets ectopiques



Prépulmonaire

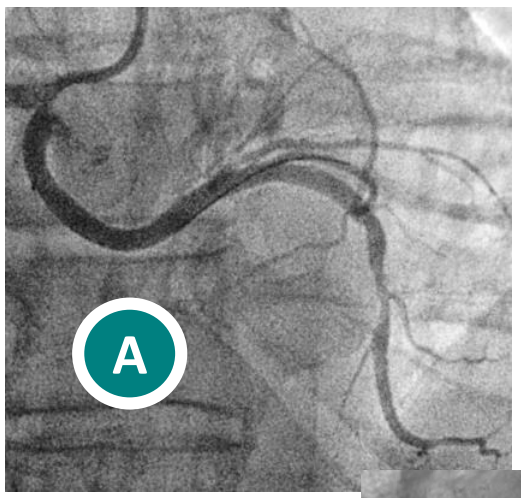
Rétropulmonaire

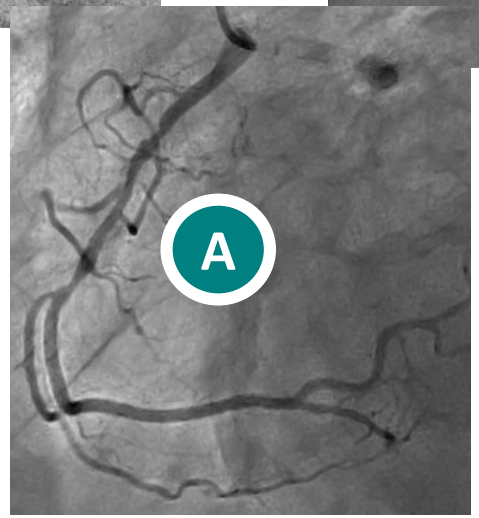
Interartériel

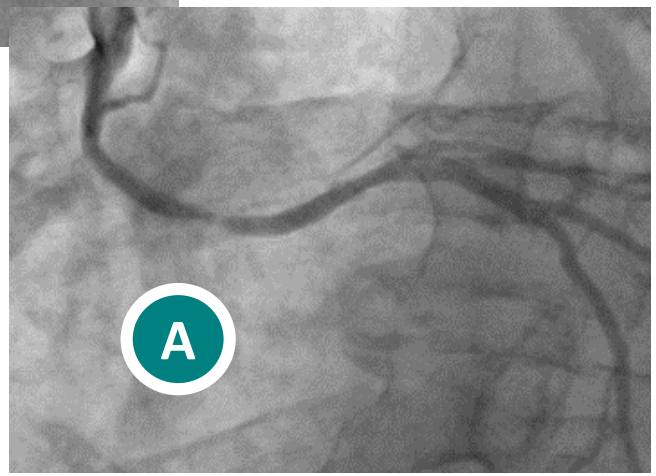
Rétroaortique

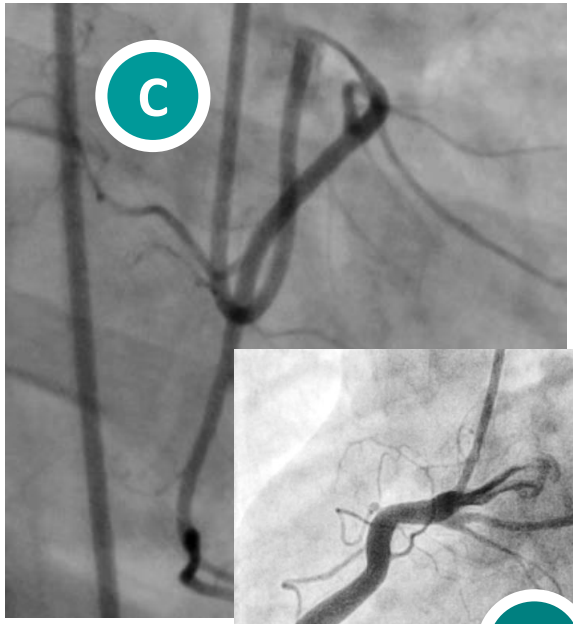
Rationnel

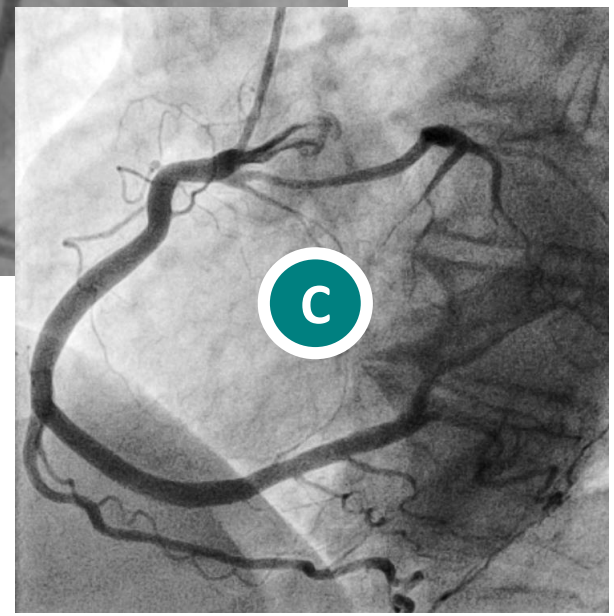
Sténoses athéromateuses/Sténoses congénitales





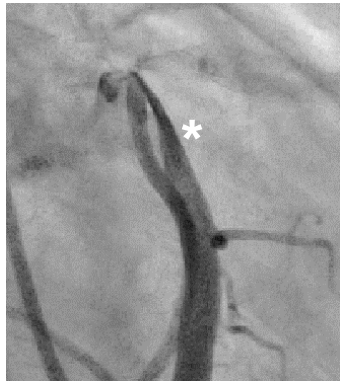




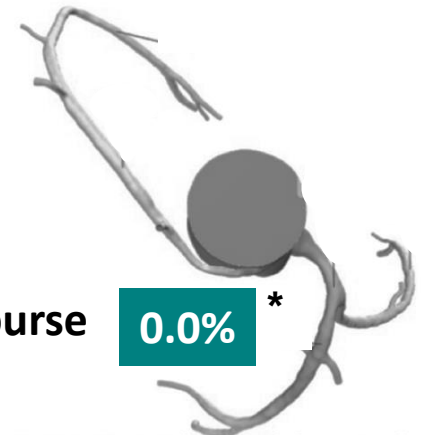


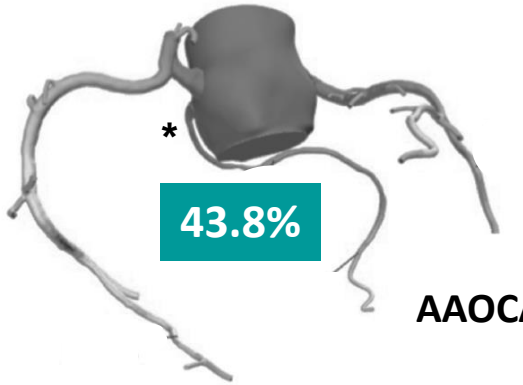
Prévalence athérome coronaire

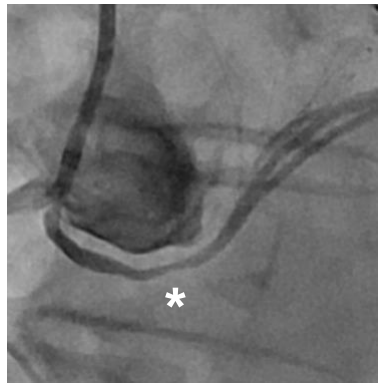
Trajets ectopiques



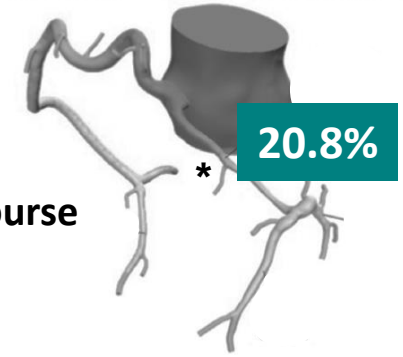
AAOCA (RCA*) with interarterial course







AAOCA (Cx artery*) with retroaortic course



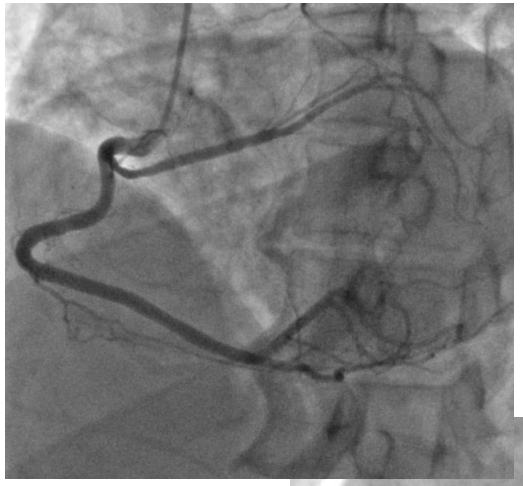
AAOCA (LM artery*) with subpulmonic course

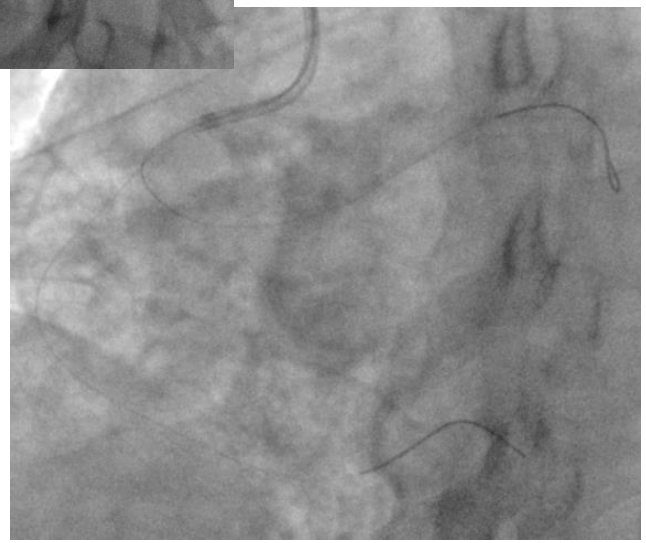
AAOCA (LM artery*) with prepulmonic course

Zendjebil S. et al *in press 2023*

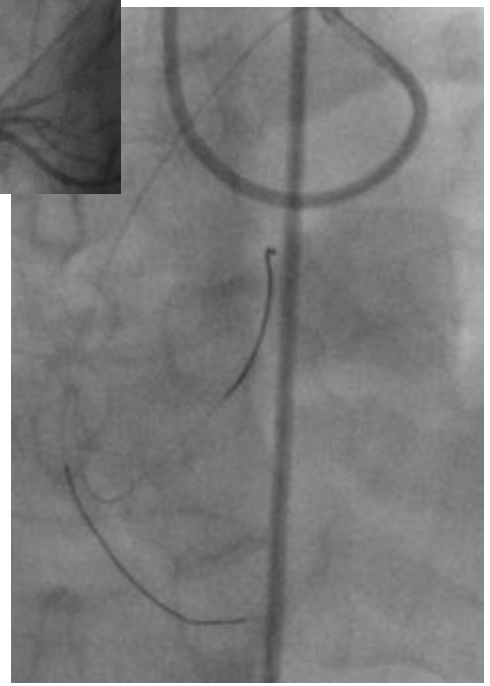
Techniques de cathétérisme

Double guide

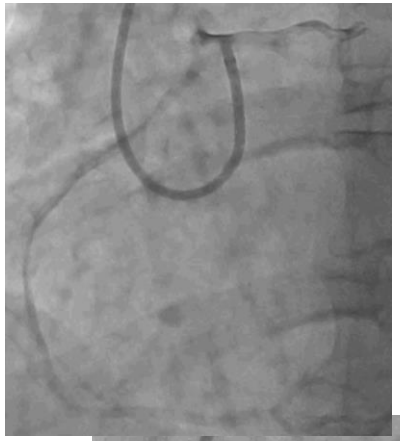




Artère circonflexe



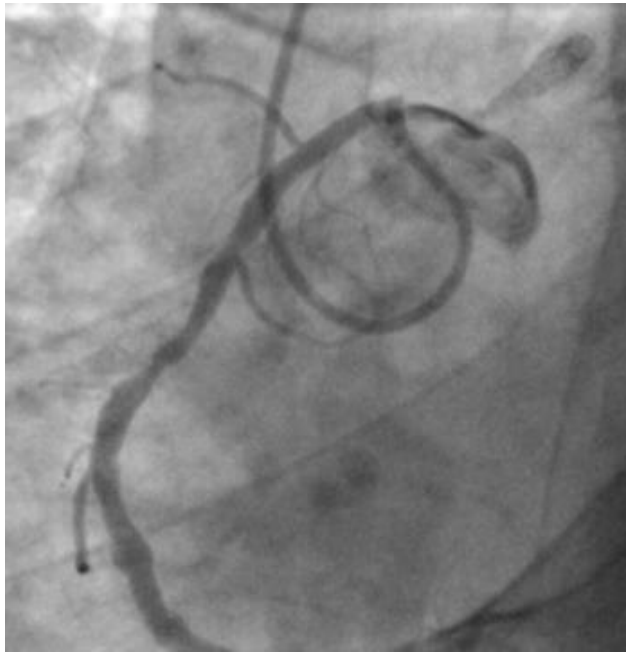
Coronaire droite

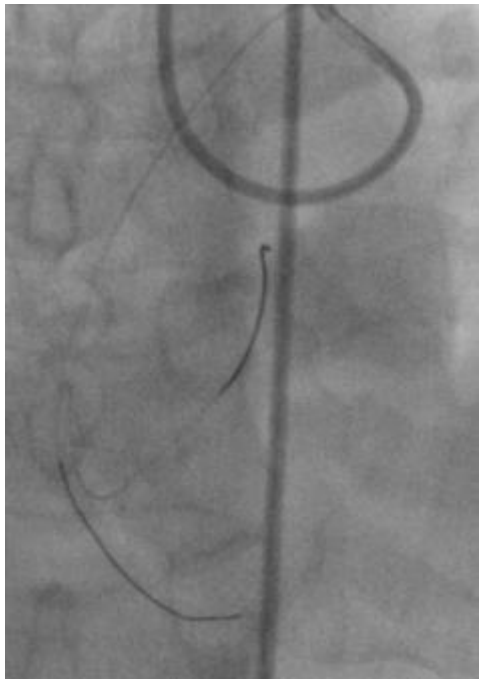


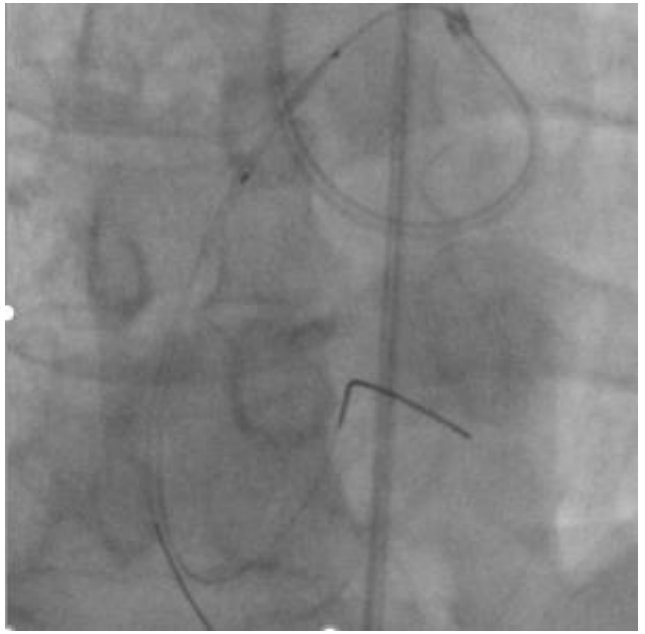
Coronaire droite

Techniques de cathétérisme

Double guide



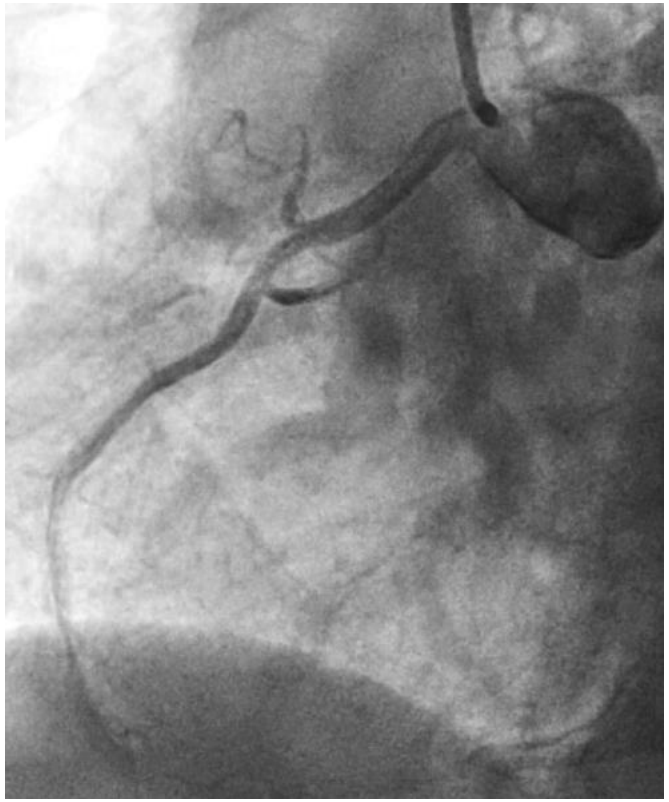


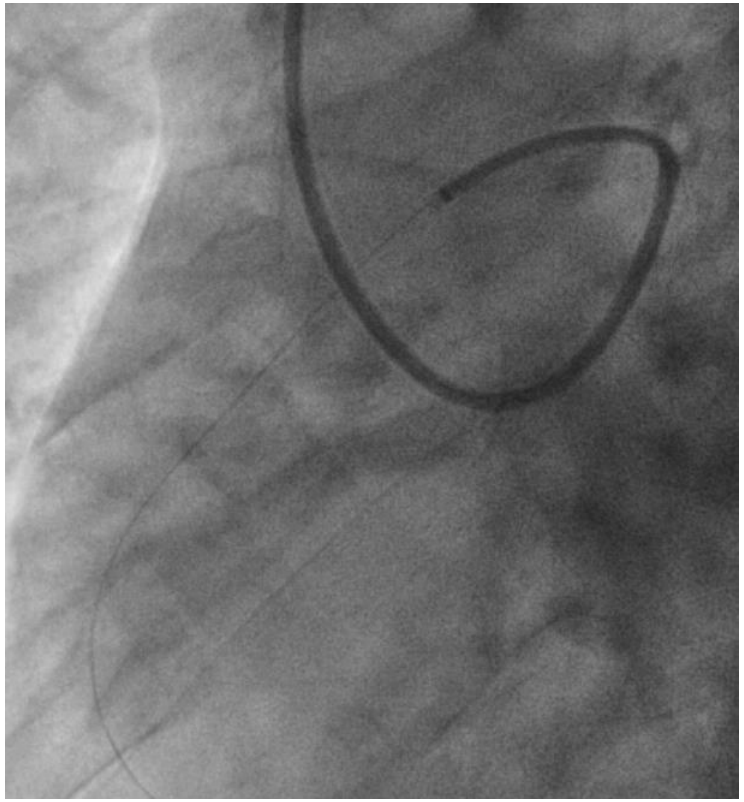


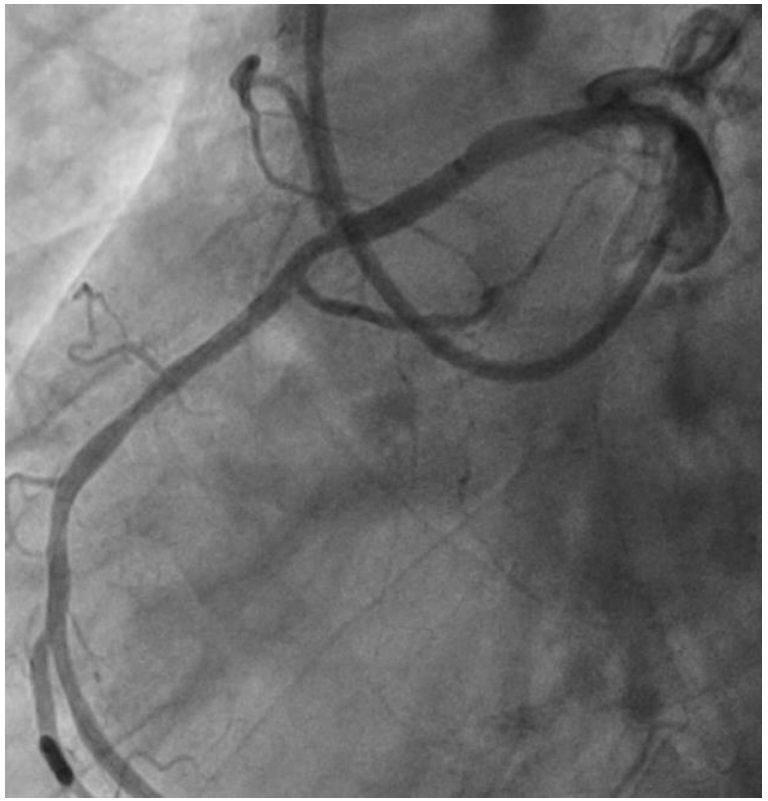
Coronaire droite

Technique de cathétérisme

Cathéter d'extension



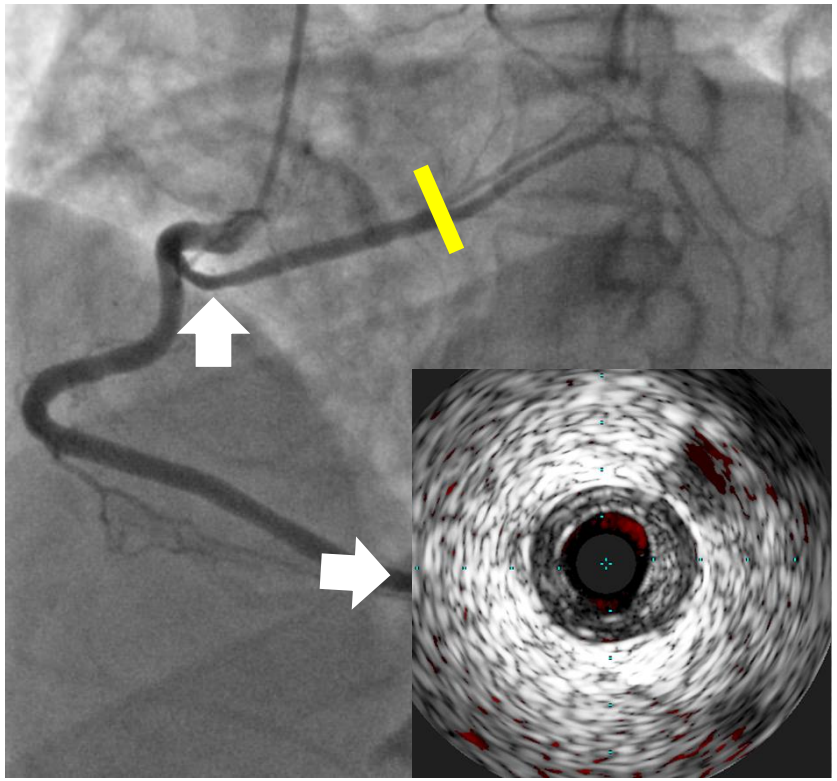




Coronaire droite

Angioplastie artère circonflexe ectopique

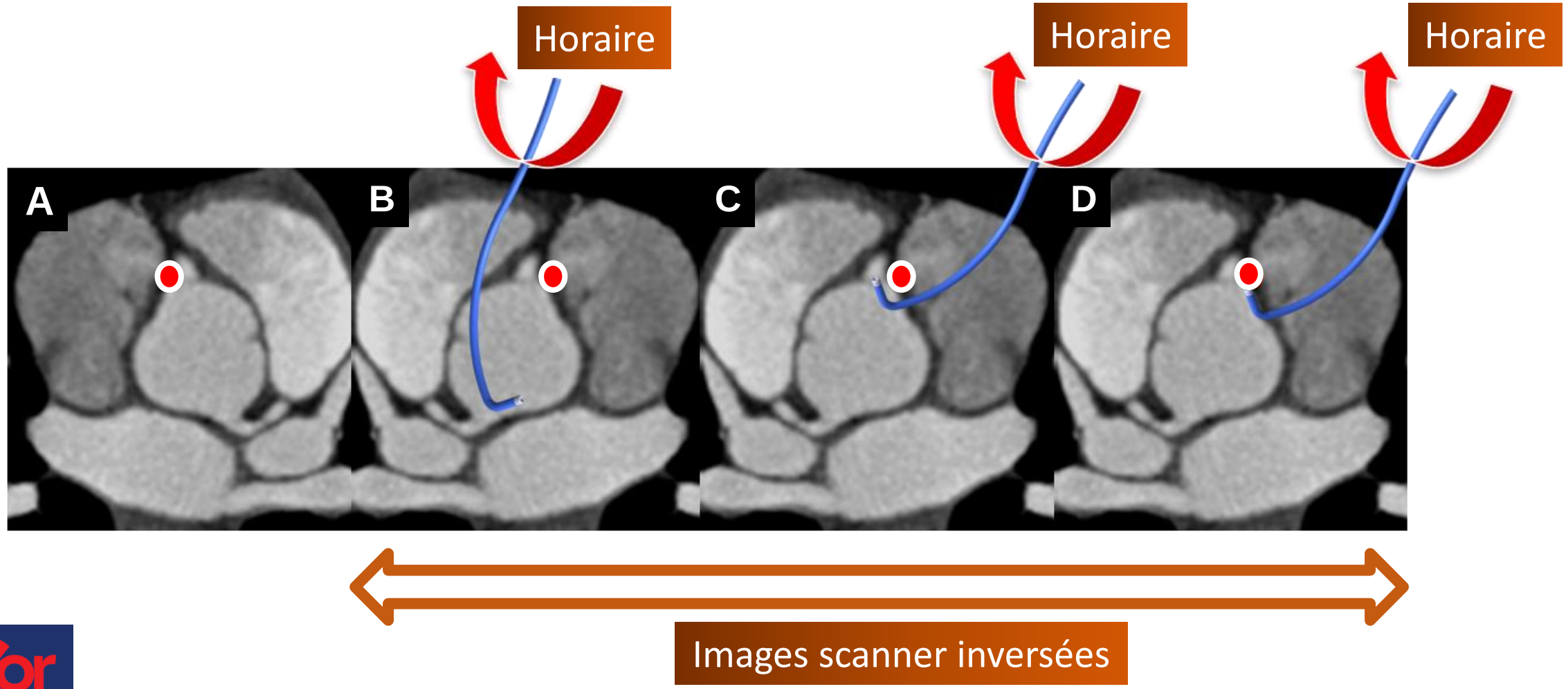
Sténose athéromateuse



Artère circonflexe

Technique de cathétérisme

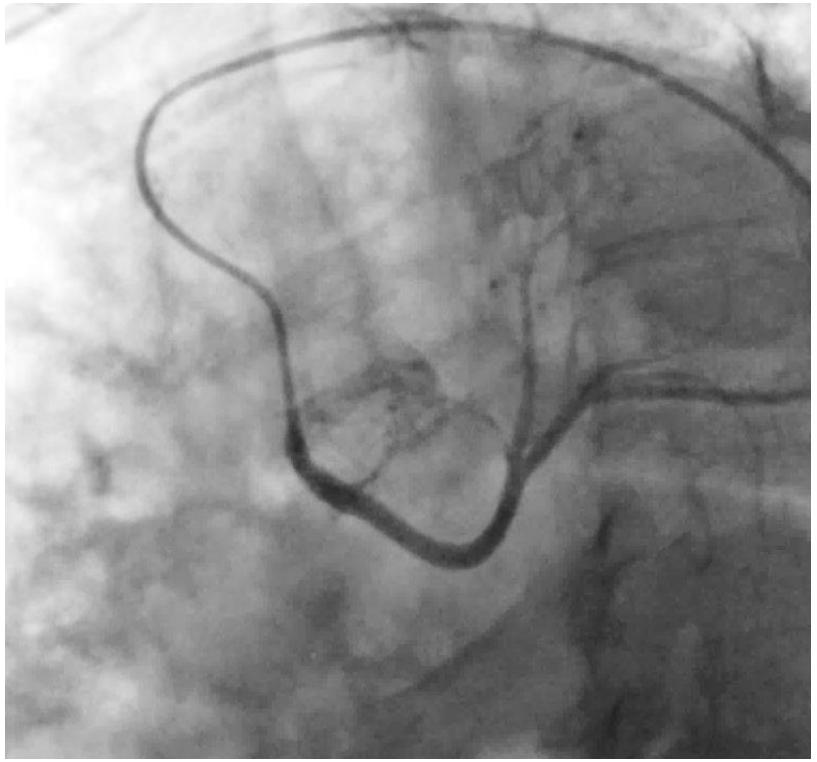
Artère circonflexe connectée dans sinus droit/coronaire droite



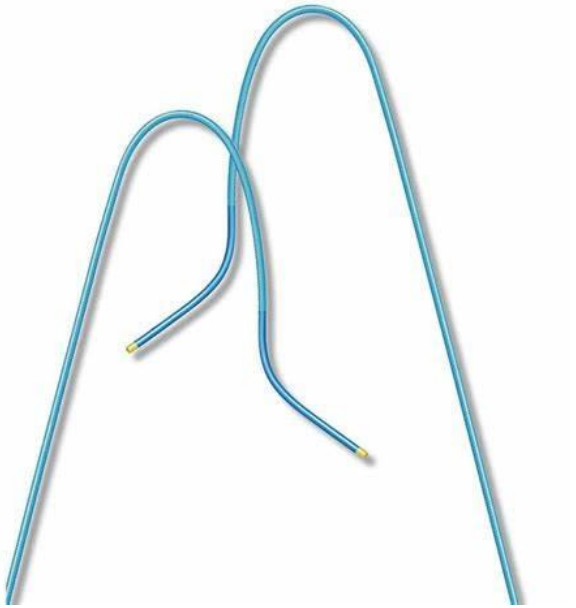
Technique de cathétérisme

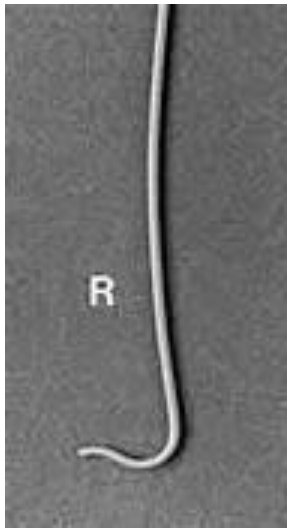
Artère circonflexe connectée dans sinus droit/coronaire droite

- JR4
- AR1-AR2
- MP



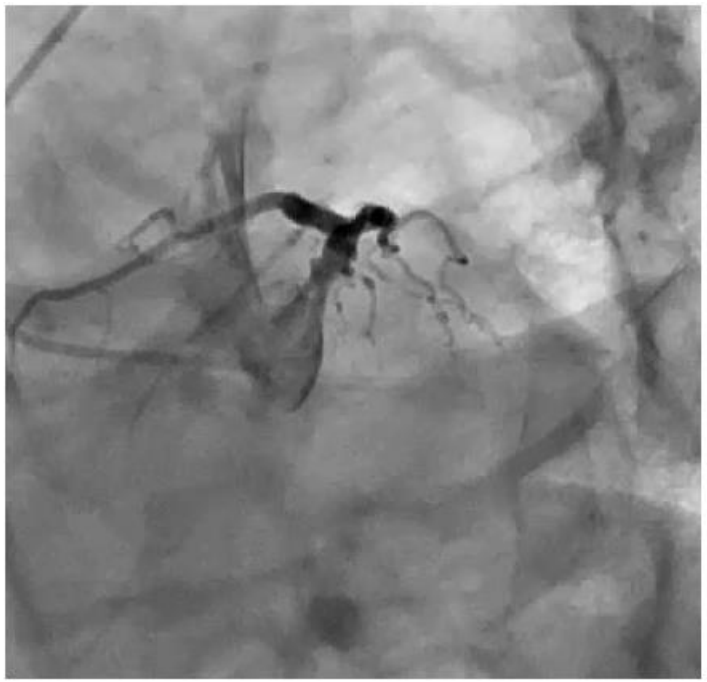
Artère circonflexe

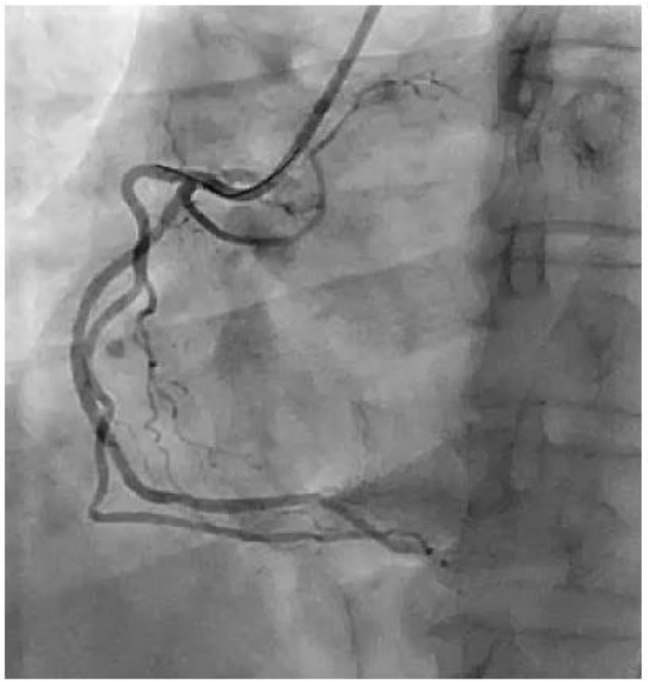


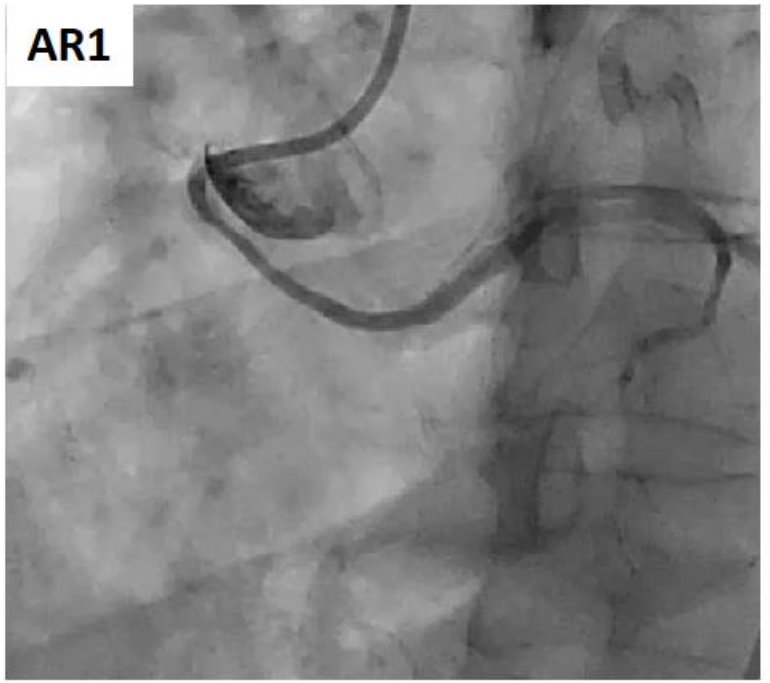


Angioplastie artère circonflexe ectopique

Sténose athéromateuse

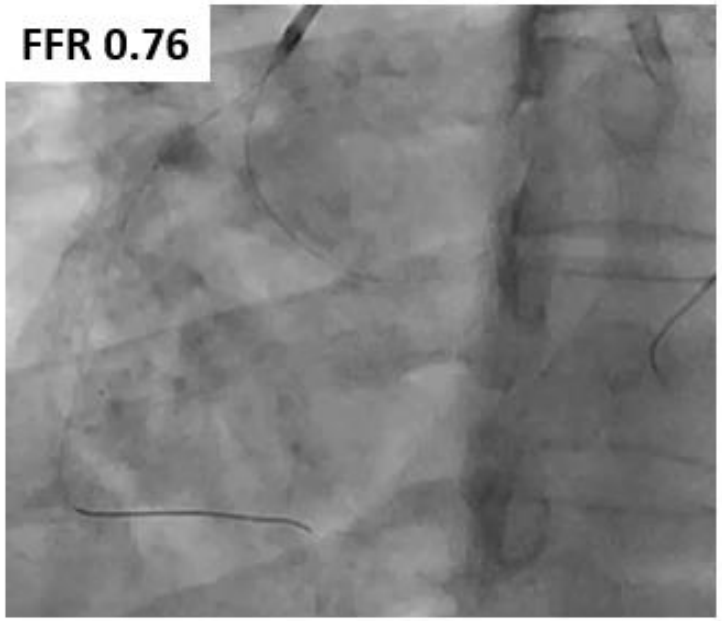


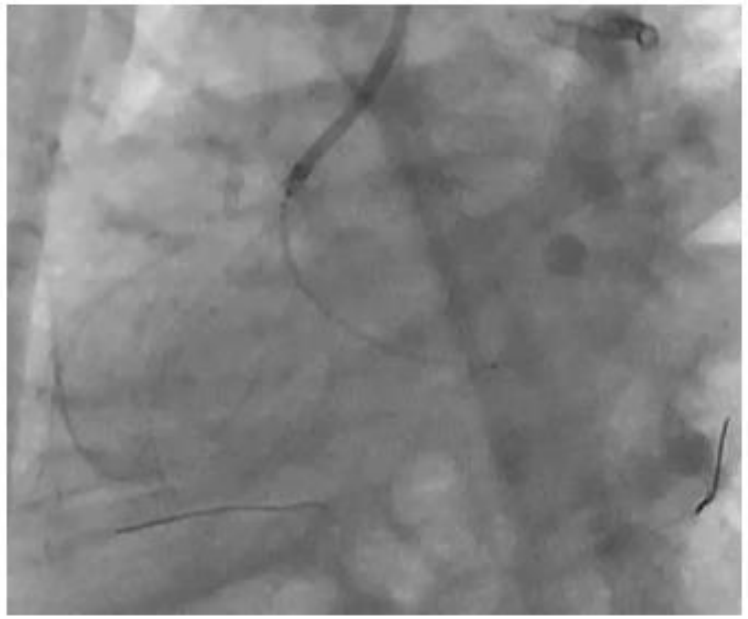


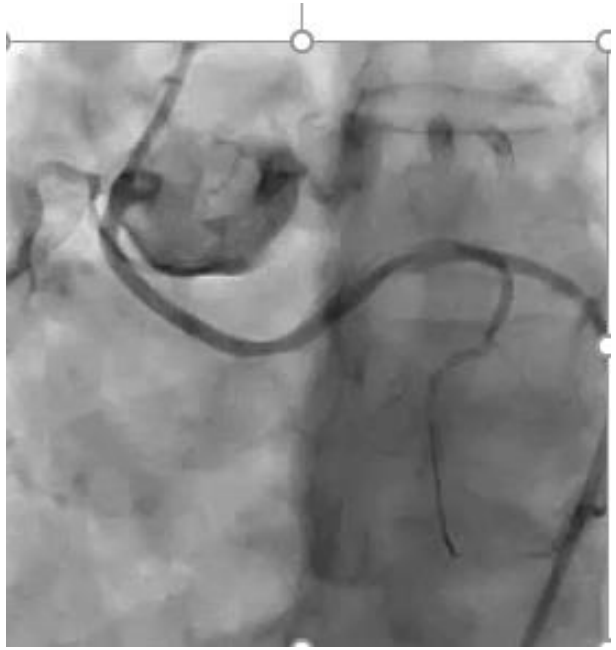


Angioplastie artère circonflexe ectopique

Sténose athéromateuse

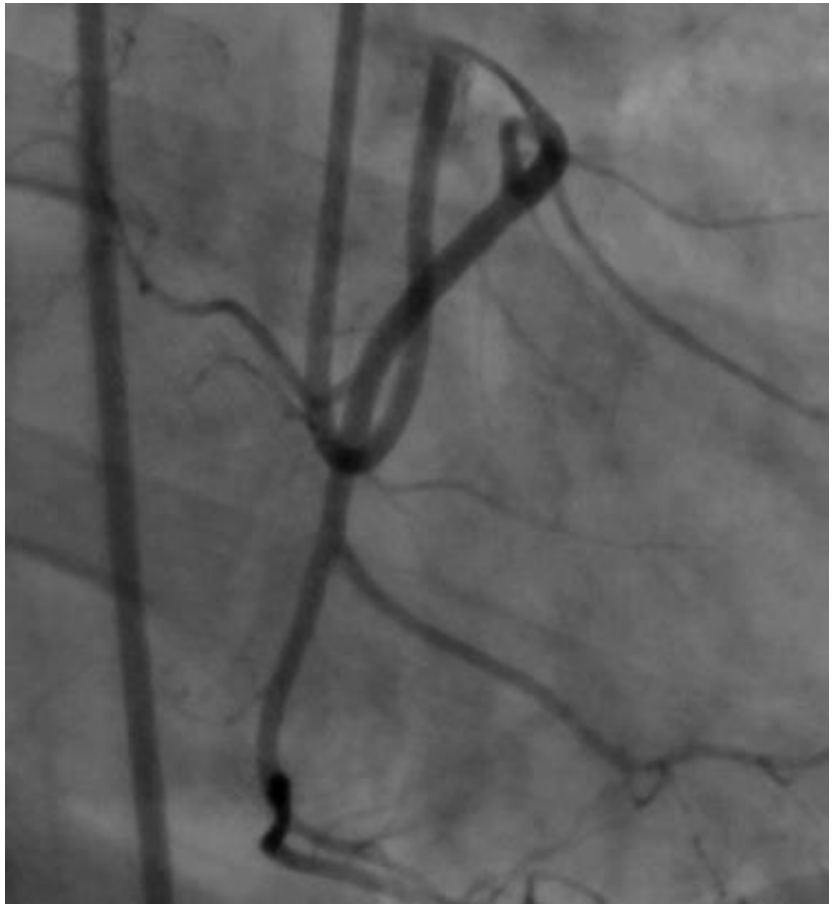


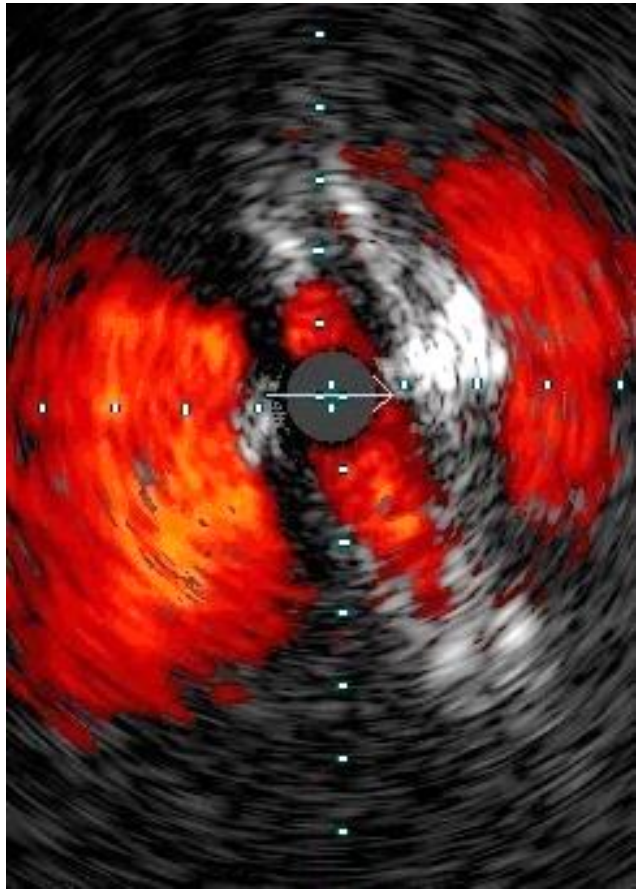




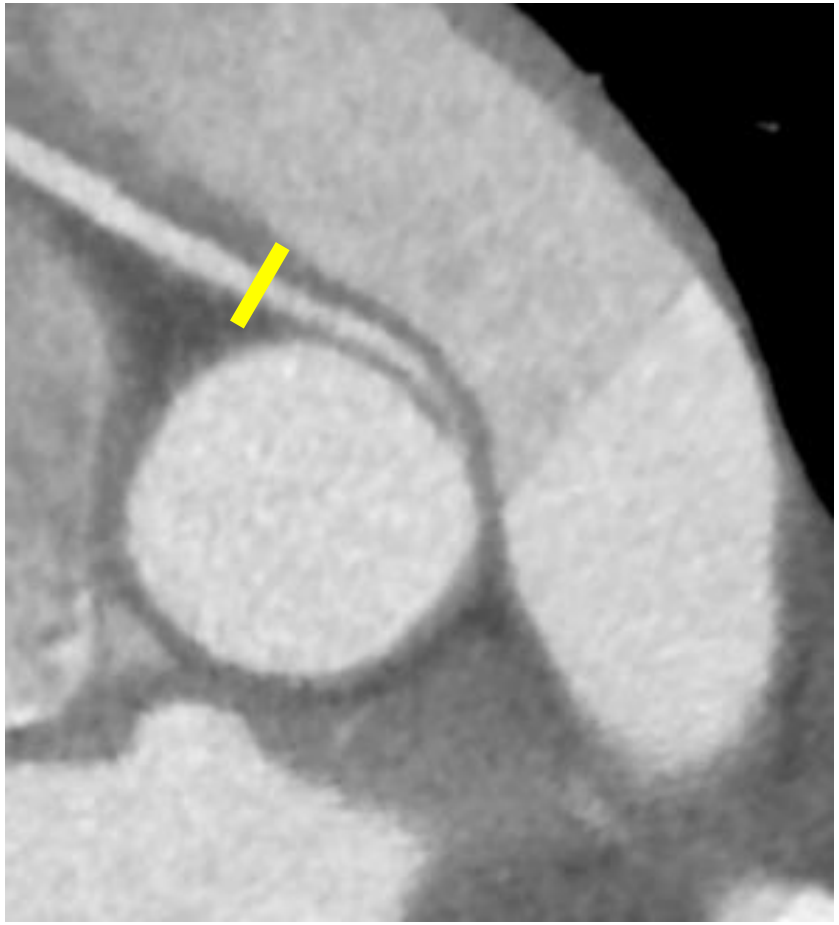
Angioplastie artère coronaire droite ectopique

Sténose congénitale



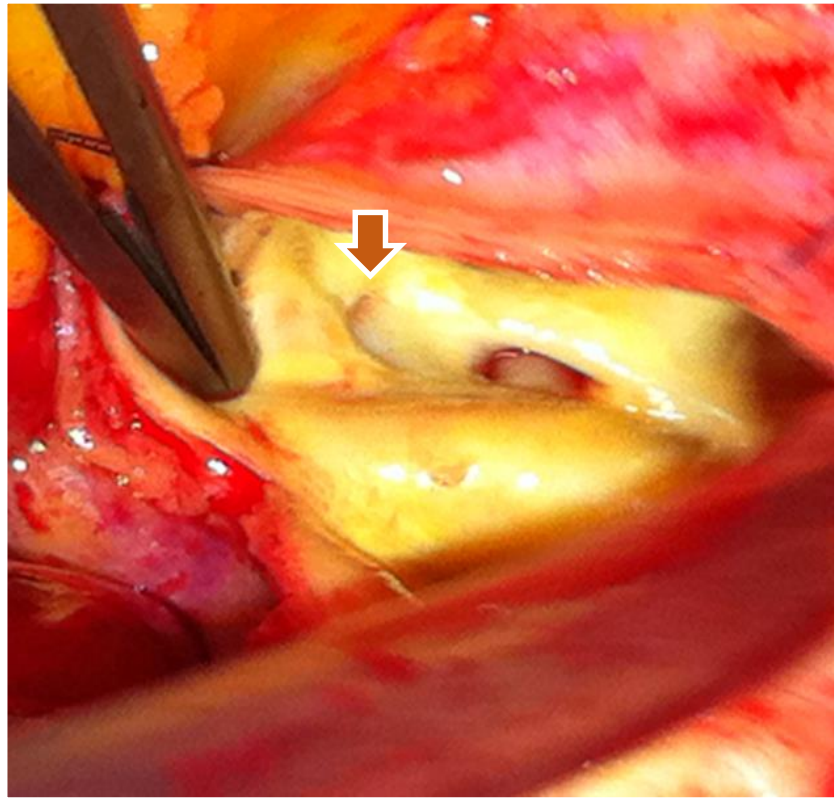


Artère coronaire droite



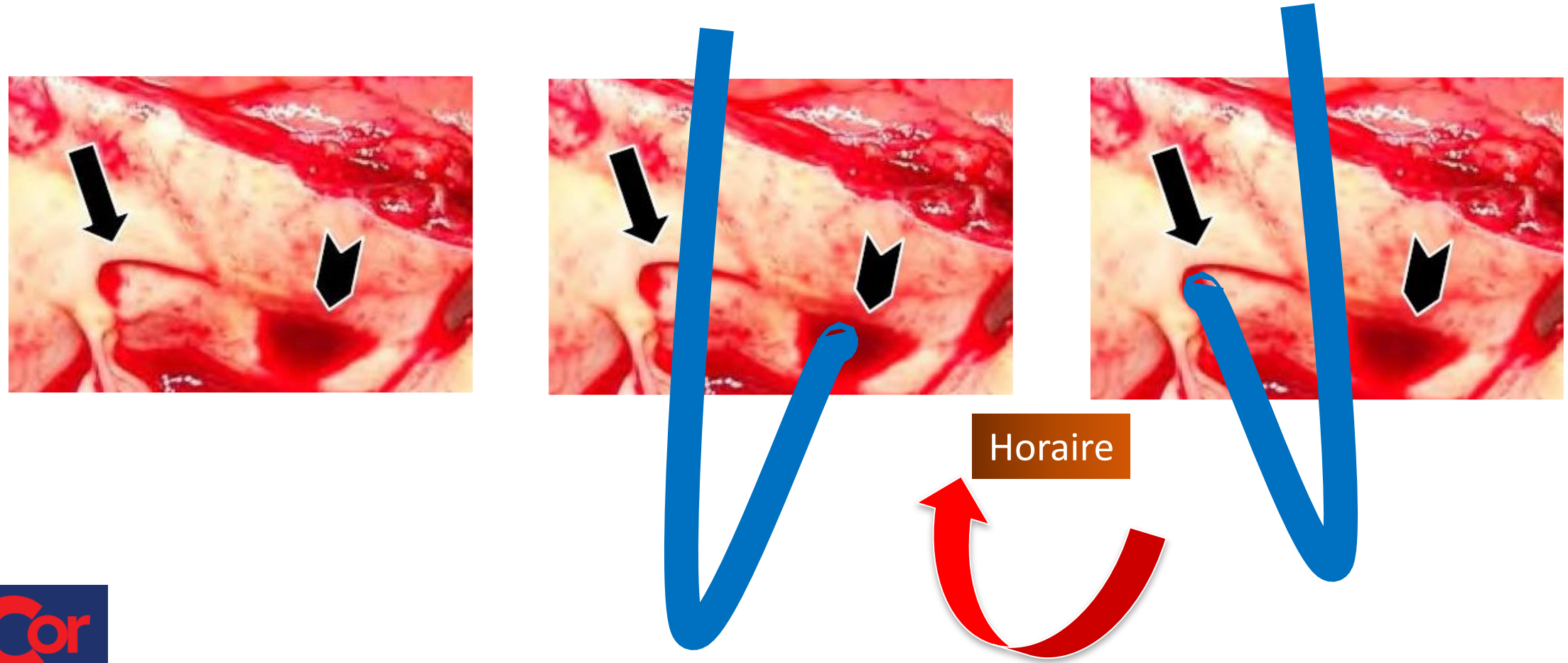
Technique de cathétérisme

Artère coronaire droite dans sinus gauche



Technique de cathétérisme

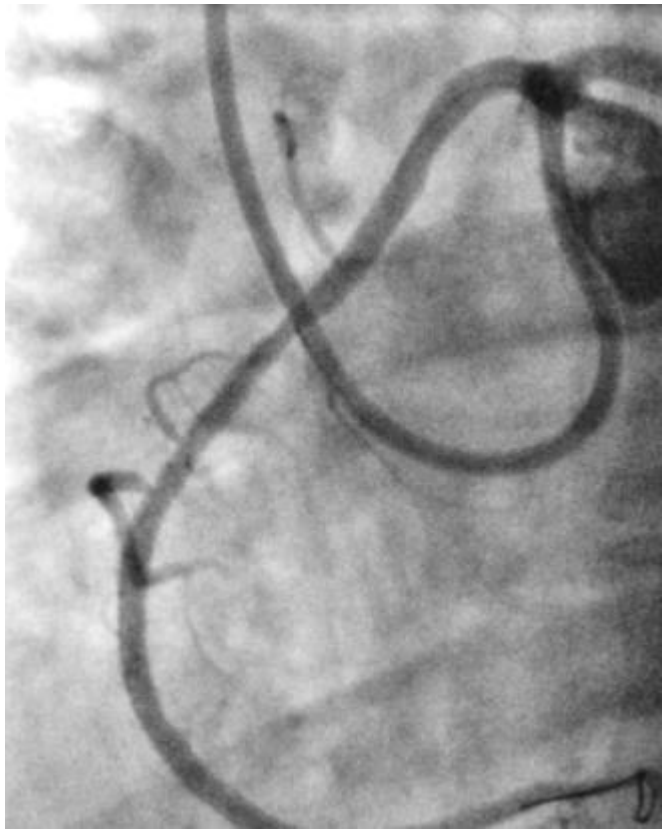
Artère coronaire droite dans sinus gauche



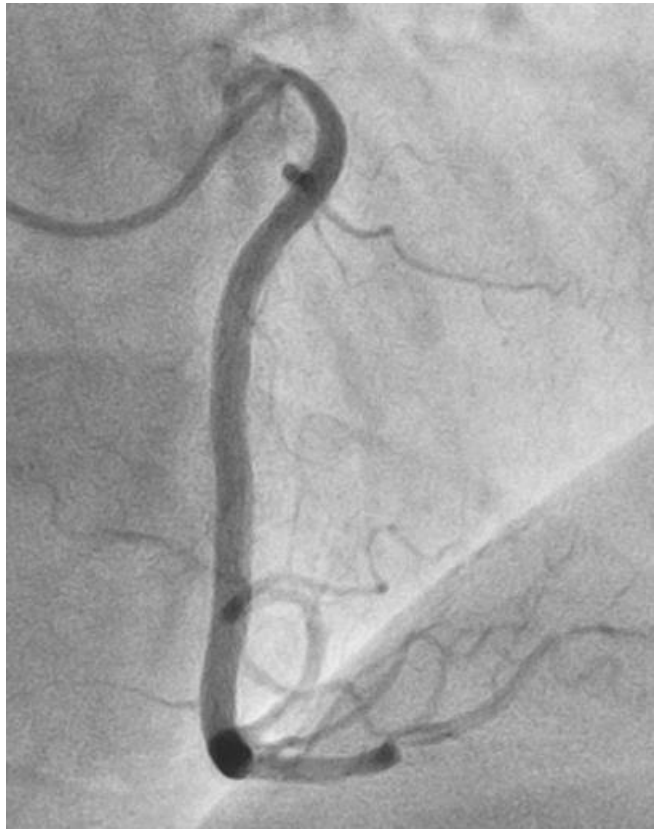
Technique de cathétérisme

Coronaire droite connectée dans sinus gauche

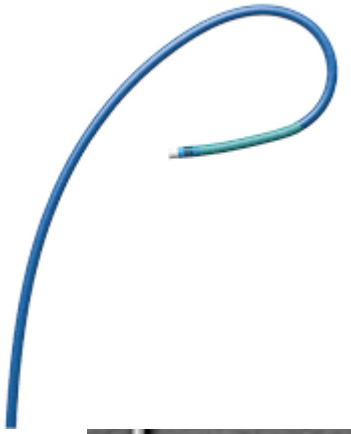
- EBU/XB
- AL

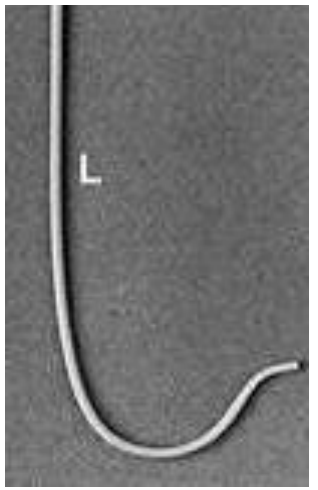


Coronaire droite



Coronaire droite





Angioplastie des anomalies de connexion des artères coronaires

2018 AHA/ACC Guideline for the Management of Adults With Congenital Heart Disease: Executive Summary

COR	LOE	Recommendations
Therapeutic		
I	B-NR	1. Surgery is recommended for AAOCA from the left sinus or AAOCA from the right sinus for symptoms or diagnostic evidence consistent with coronary ischemia attributable to the anomalous coronary artery.[S4.4.5.2-1–S4.4.5.2-3]
IIa	C-LD	2. Surgery is reasonable for anomalous aortic origin of the left coronary artery from the right sinus in the absence of symptoms or ischemia.[S4.4.5.2-4–S4.4.5.2-6]
IIa	C-EO	3. Surgery for AAOCA is reasonable in the setting of ventricular arrhythmias.
IIb	B-NR	4. Surgery or continued observation may be reasonable for asymptomatic patients with an anomalous left coronary artery arising from the right sinus or right coronary artery arising from the left sinus without ischemia or anatomic or physiological evaluation suggesting potential for compromise of coronary perfusion (eg, intramural course, fish-mouth-shaped orifice, acute angle).[S4.4.5.2-4–S4.4.5.2-6]

Stout KK et al. Circulation 2019

Guidelines

2020 ESC Guidelines for the management of adult congenital heart disease

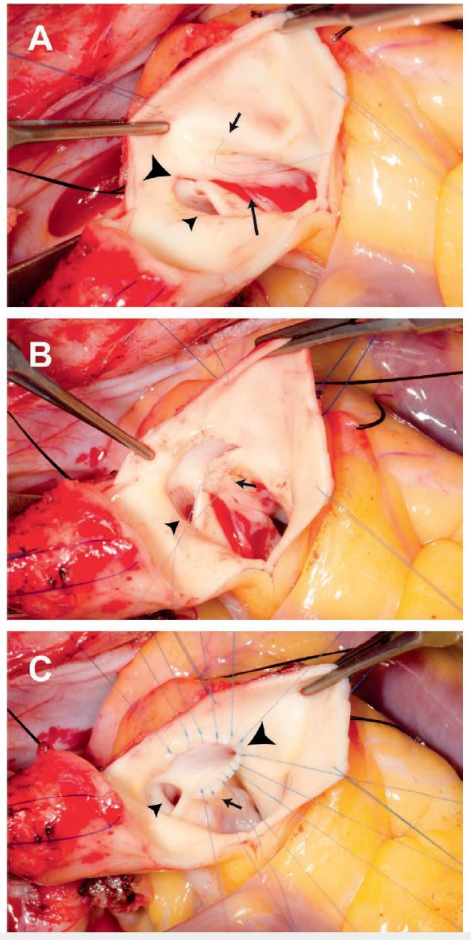
Anomalous aortic origin of the coronary artery		
Surgery is recommended for AAOCA in patients with typical angina symptoms who present with evidence of stress-induced myocardial ischaemia in a matching territory or high-risk anatomy.[c]	I	C
Surgery should be considered in *asymptomatic* patients with AAOCA (right or left) and evidence of myocardial ischaemia.	IIa	C
Surgery should be considered in *asymptomatic* patients with AAOLCA and no evidence of myocardial ischaemia but a high-risk anatomy.[c]	IIa	C
Surgery may be considered for symptomatic patients with AAOCA even if there is no evidence of myocardial ischaemia or high-risk anatomy.[c]	IIb	C
Surgery may be considered for *asymptomatic* patients with AAOLCA without myocardial ischaemia and without high-risk anatomy[c] when they present at young age (<35 years).	IIb	C
Surgery is not recommended for AAORCA in asymptomatic patients without myocardial ischaemia and without high-risk anatomy.[c]	III	C

Baumgartner H et al. Eur Heart J 2020

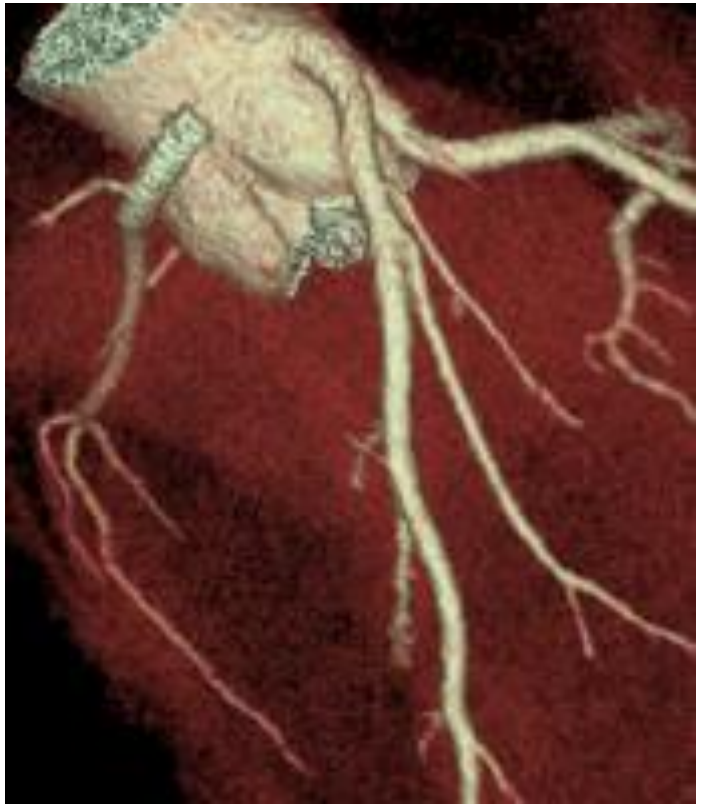
Anomalies de connexion coronaire et chirurgie

- Recommandations : souvent ciblées sur une population jeune.
- Décisions thérapeutiques : indiquées sans tenir compte de l'âge.
- Etudes randomisées contrôlées : aucune.
- Histoire naturelle et corrigée : mal connue à long terme.
- Effet sur le risque de mort subite : ?
- Correction chirurgicale : techniques spécialisées.
- Echecs : anévrisme, sténose cicatricielle, thrombose précoce.

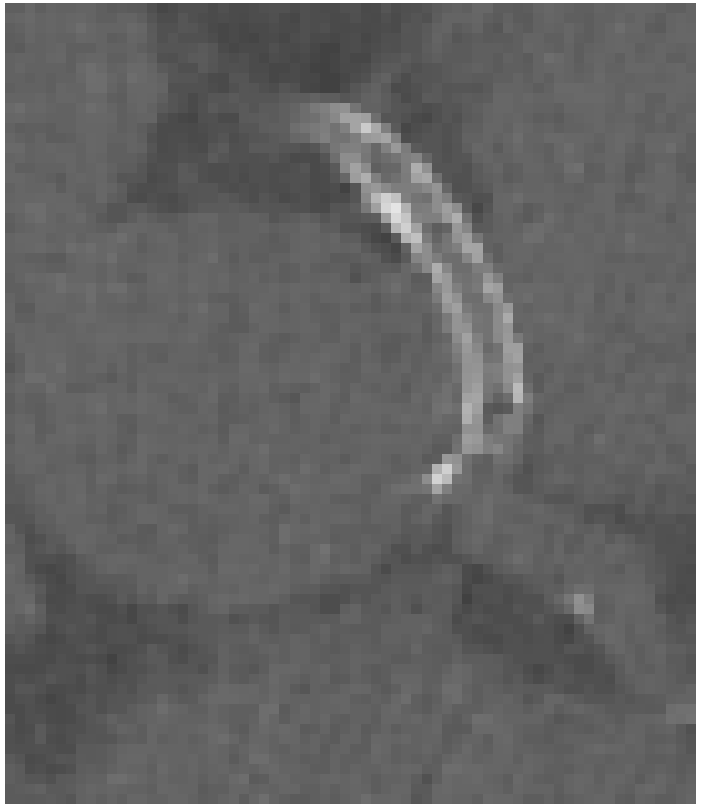
Vouhé P. Bull. Acad. Natle Méd. 2014.



Molossi et al. MD Cardiovasc J. 2019.



Est-ce possible?



Anomalous connections of coronary artery and PCI

Six-Month Success of Intracoronary Stenting for Anomalous Coronary Arteries Associated With Myocardial Ischemia

Doorey AJ et al. Am J Cardiol 2000

N=14

Origin of the Right Coronary Artery from the Opposite Sinus of Valsalva in Adults: Characterization by Intravascular Ultrasonography at Baseline and After Stent Angioplasty

Angelini P et al. Cathet Cardio Interv 2015

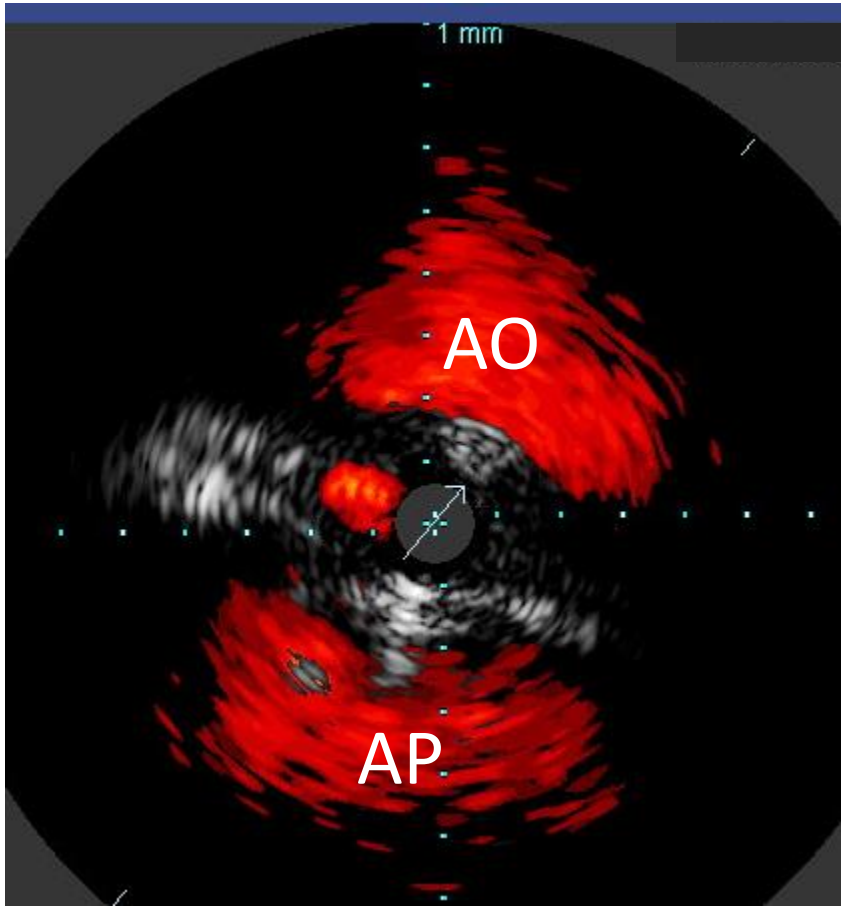
N=42

Place of Angioplasty for Coronary Artery Anomalies With Interarterial Course

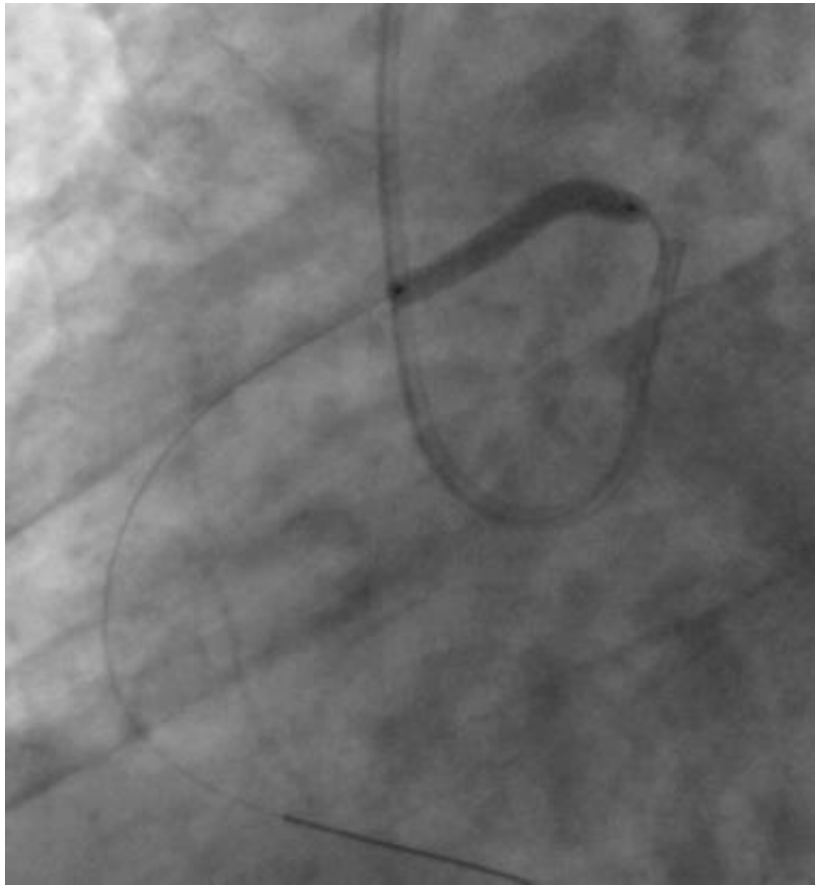
Aubry P et al. FCVM 2021

N=17

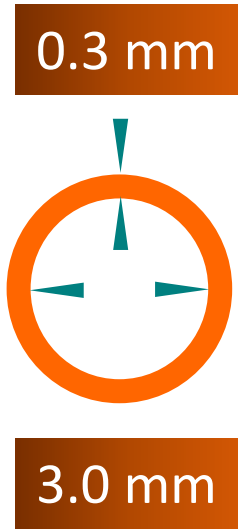
Angioplastie des anomalies de connexion des artères coronaires

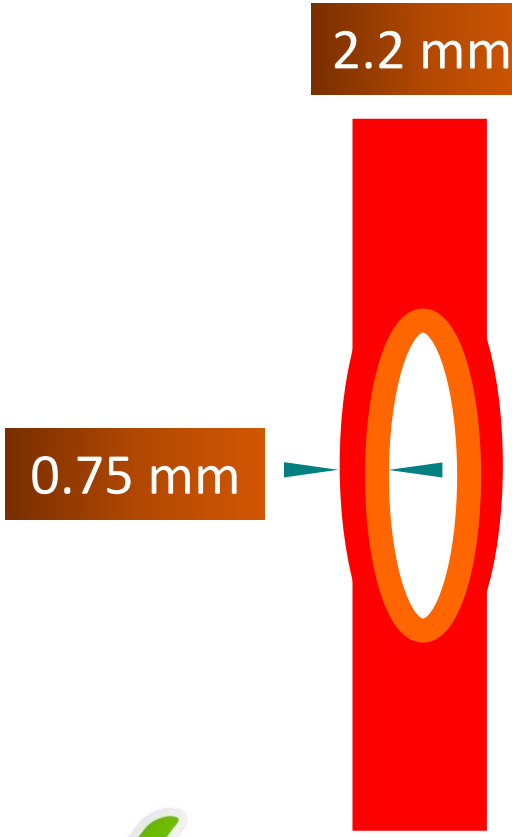


Est-ce risqué ?

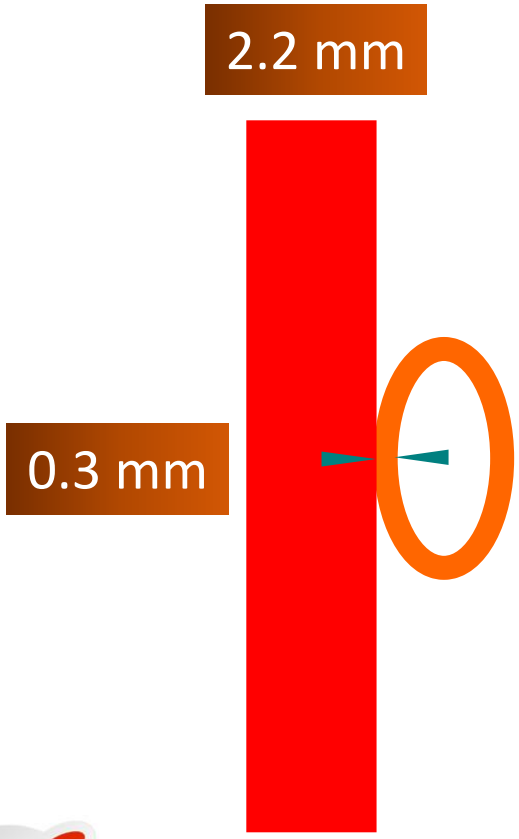


ANOCOR droite et angioplastie





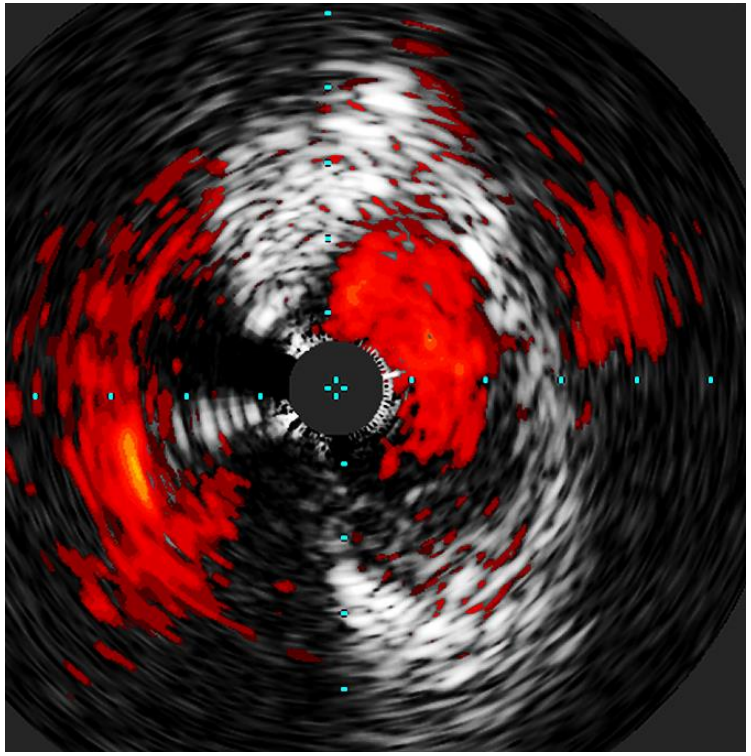
Passage intramural

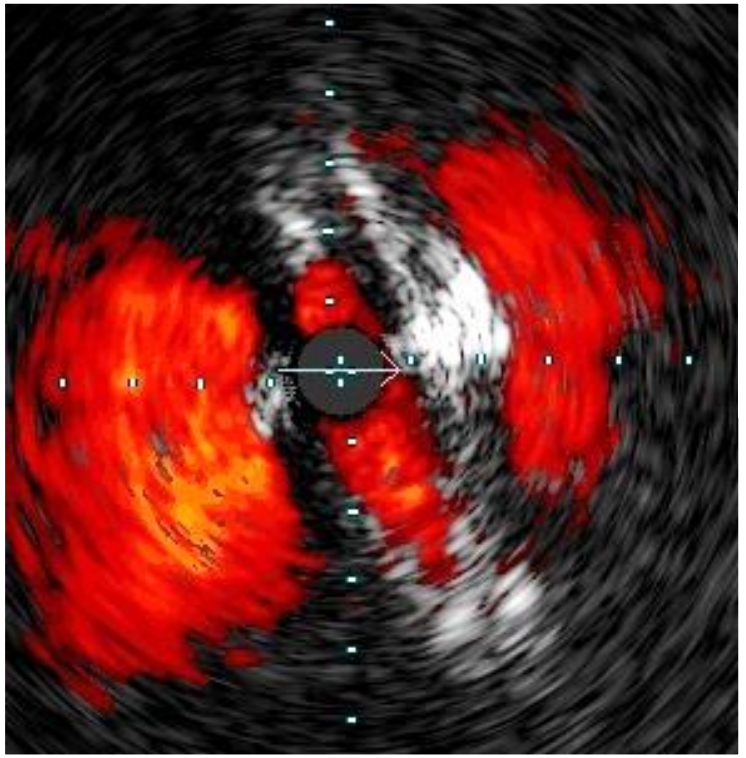


Passage intramural

Passage intramural aortique

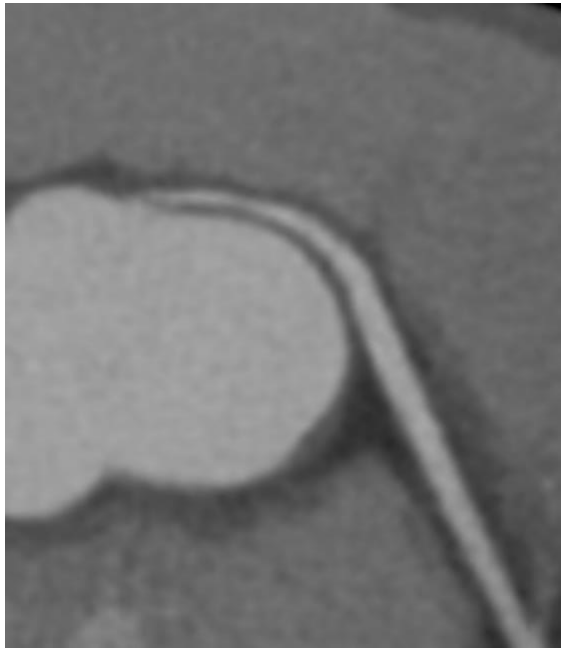
Artère coronaire droite dans sinus gauche

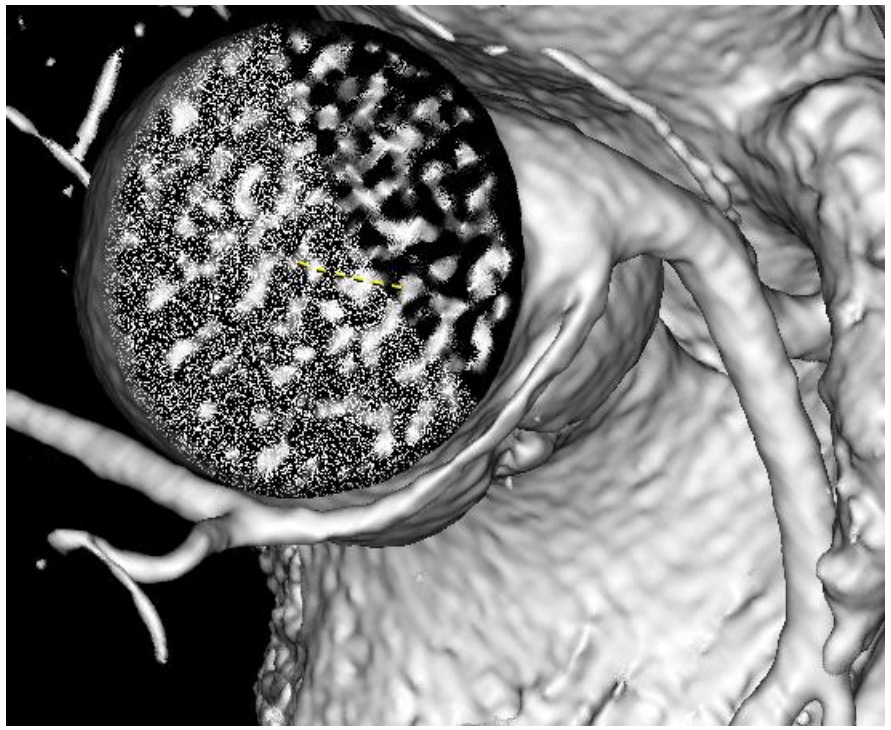


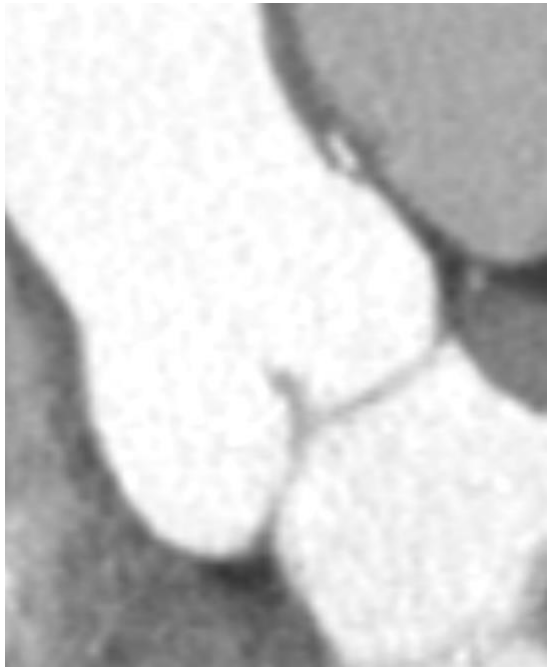


Angioplastie coronaire droite ectopique

Sténose congénitale

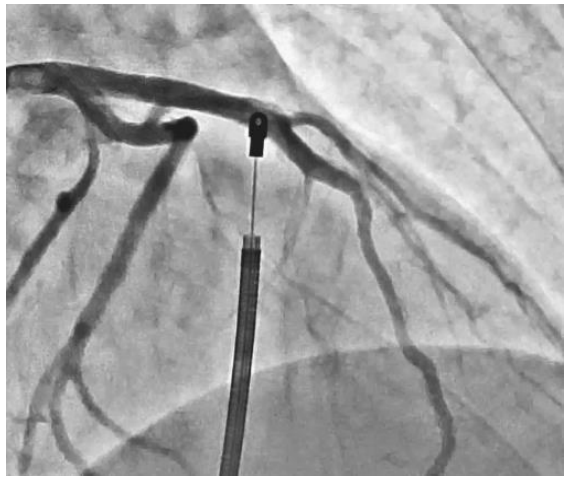
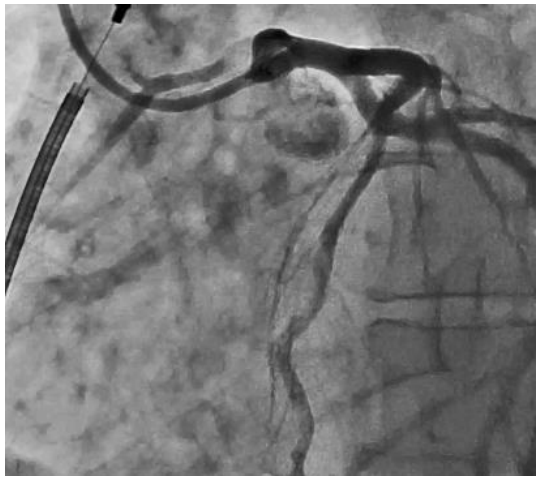


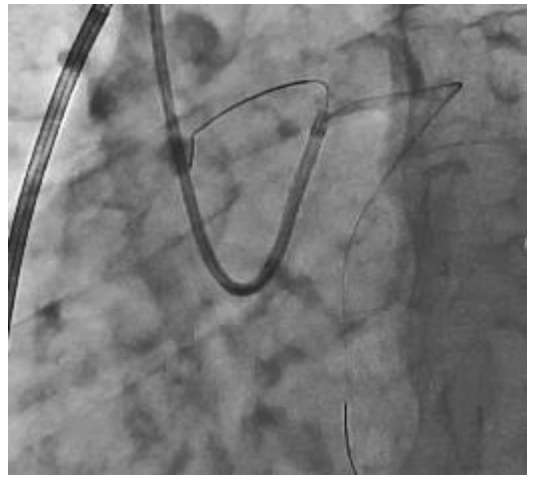




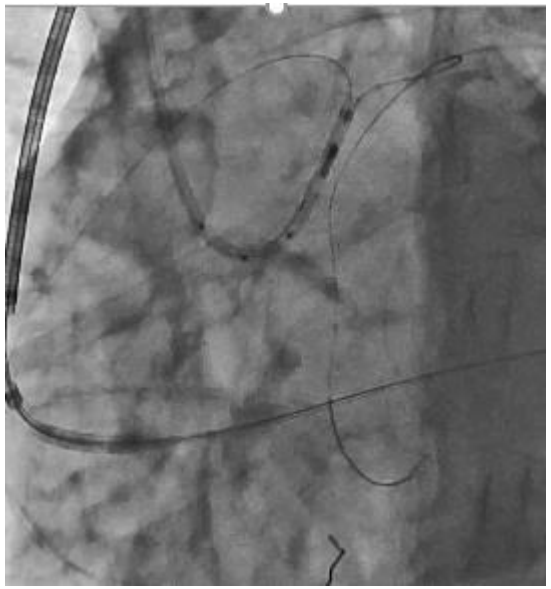
Angioplastie coronaire droite ectopique

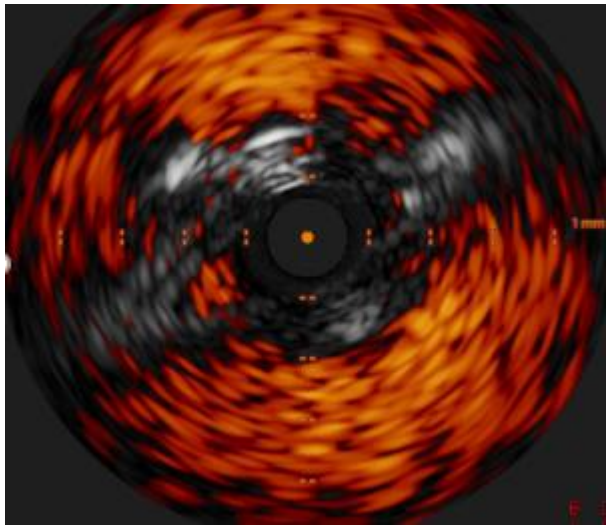
Sténose congénitale

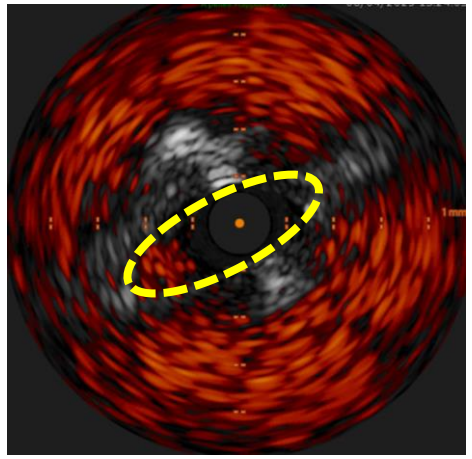



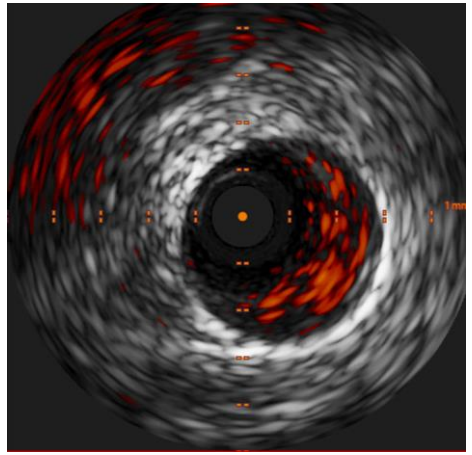


Angioplastie des anomalies de connexion des artères coronaires

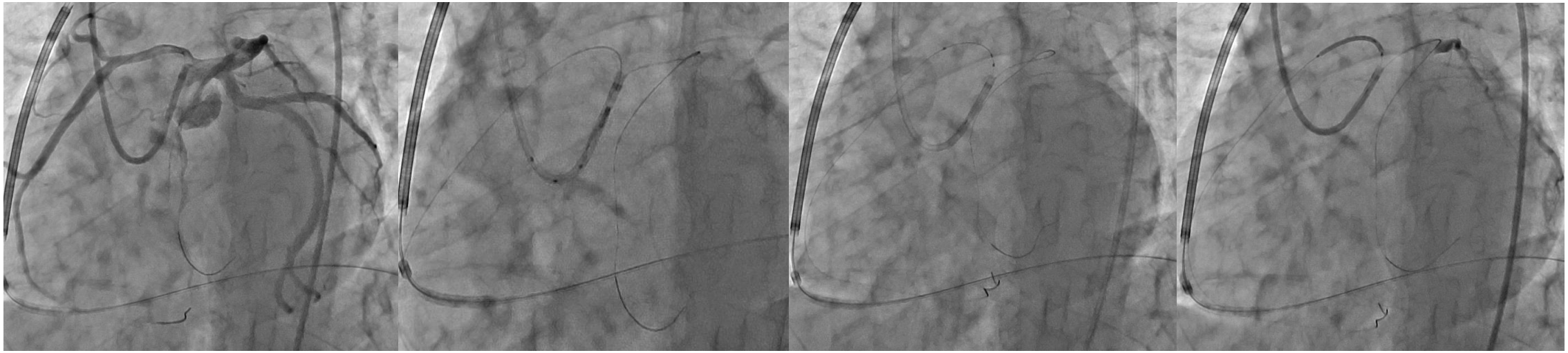




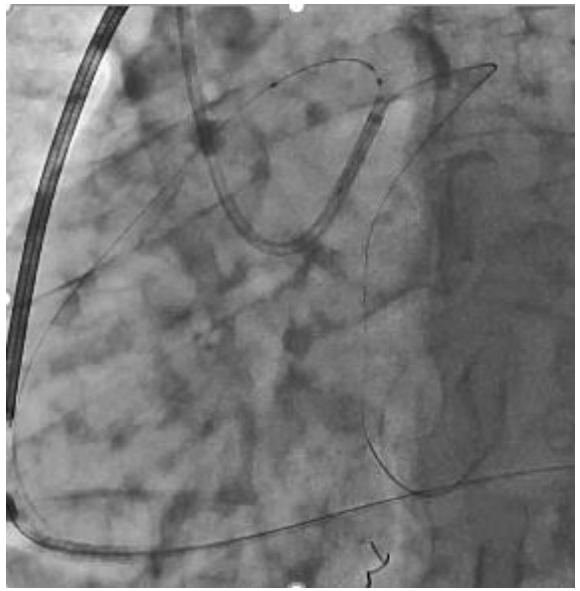
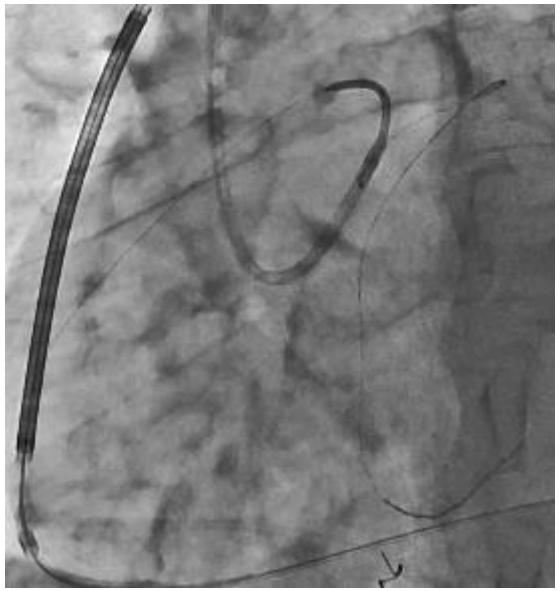
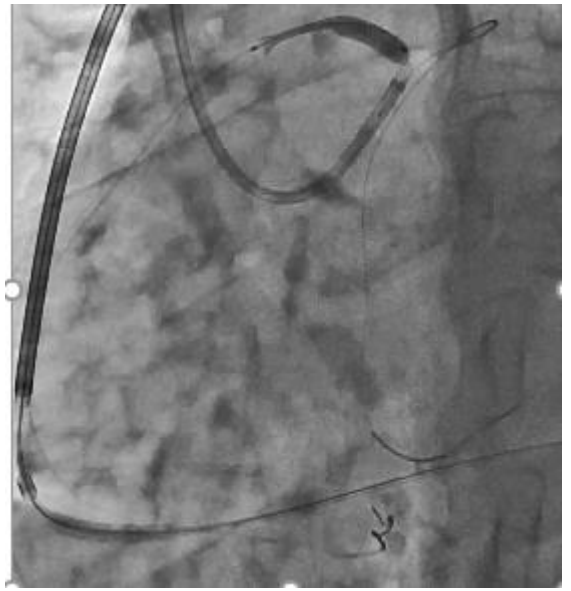




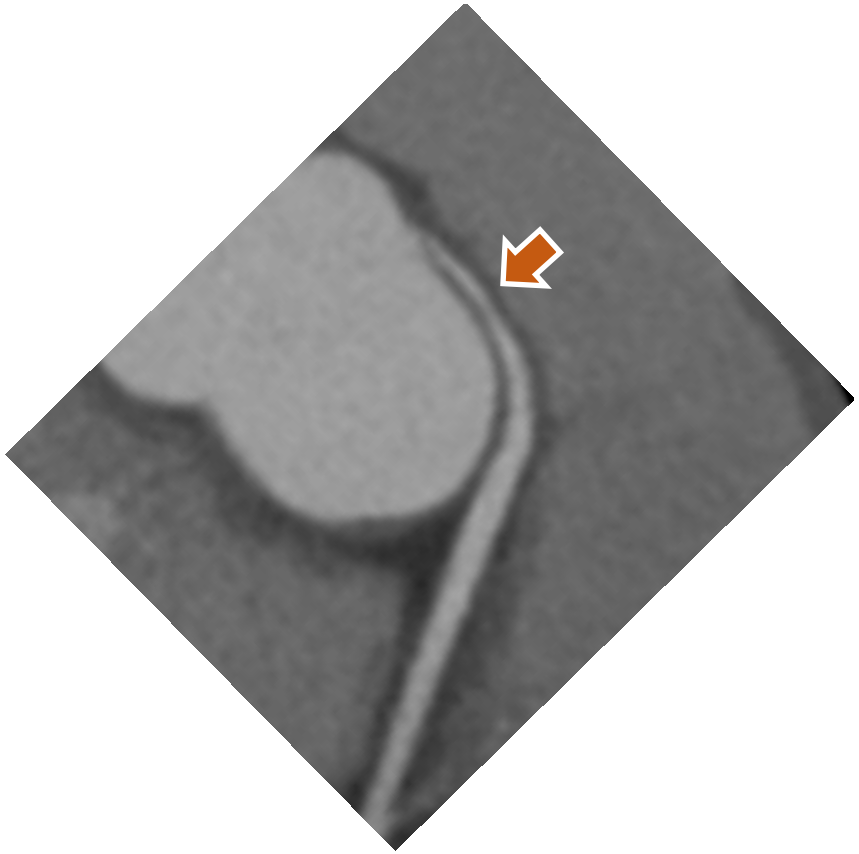
Angioplastie des anomalies de connexion des artères coronaires

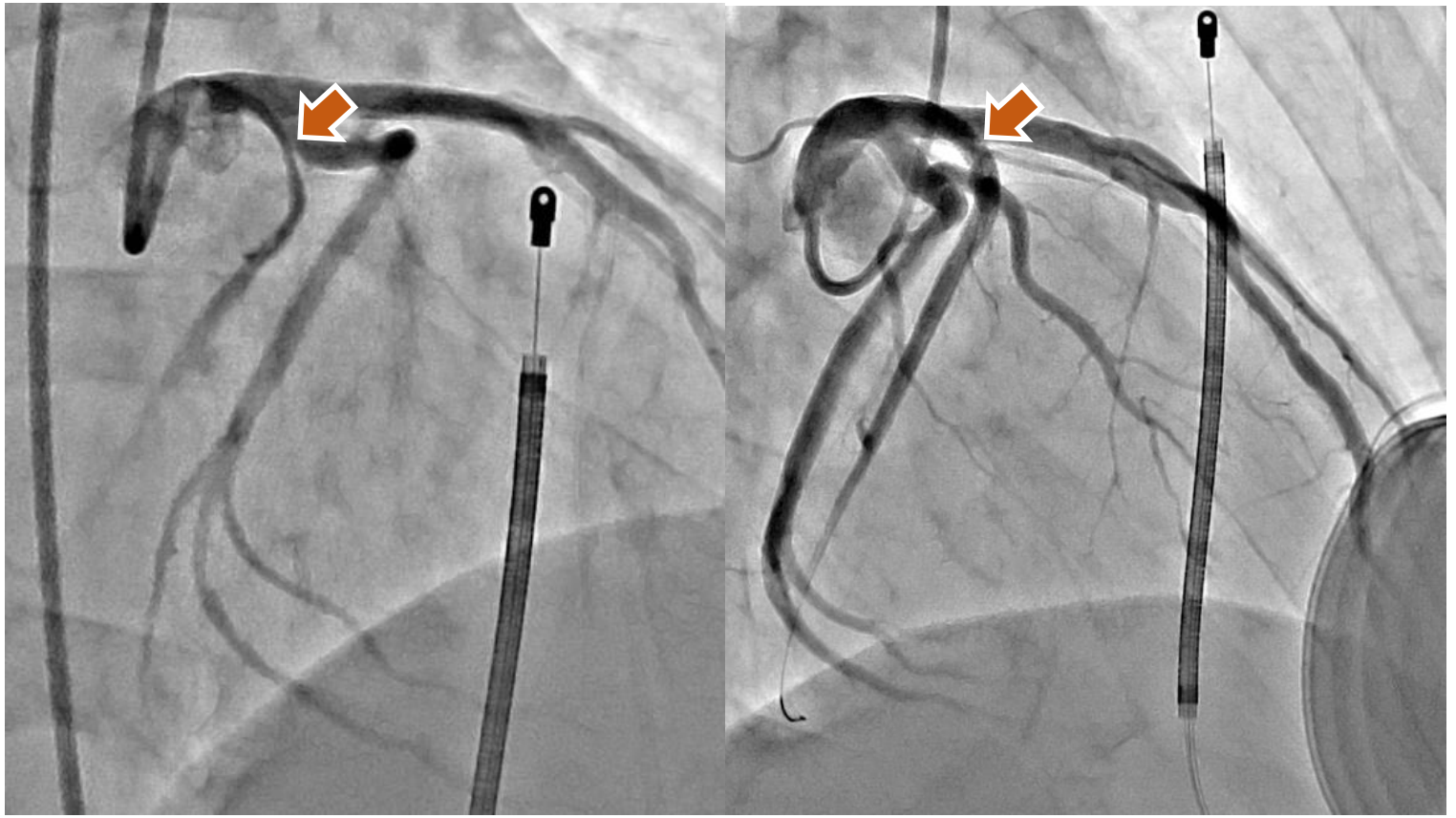


Angioplastie des anomalies de connexion des artères coronaires

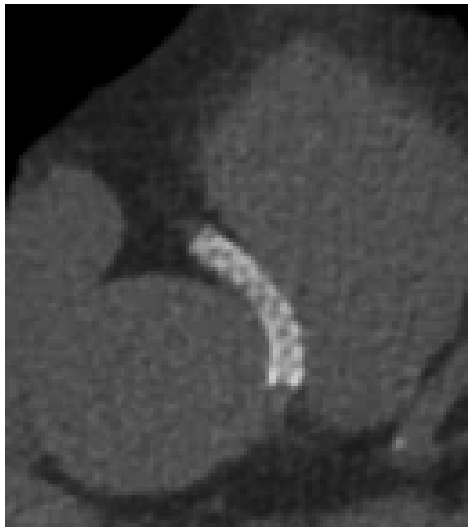

Angioplastie des anomalies de connexion des artères coronaires



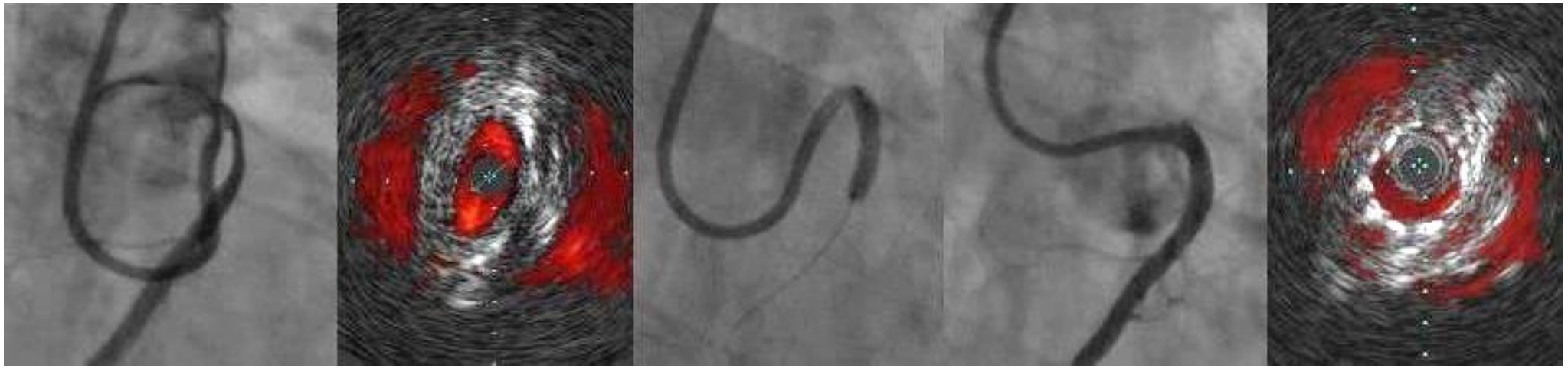


Est-ce utile ? Est-ce délétère ?

Effets	Angioplastie sténose congénitale
Symptômes d'allure ischémique	✓
Ischémie myocardique	✓
Diminution risque de mort subite	?
Resténose intrastent	✓
Dissection aortique	✗
Déformation structure du stent	✗

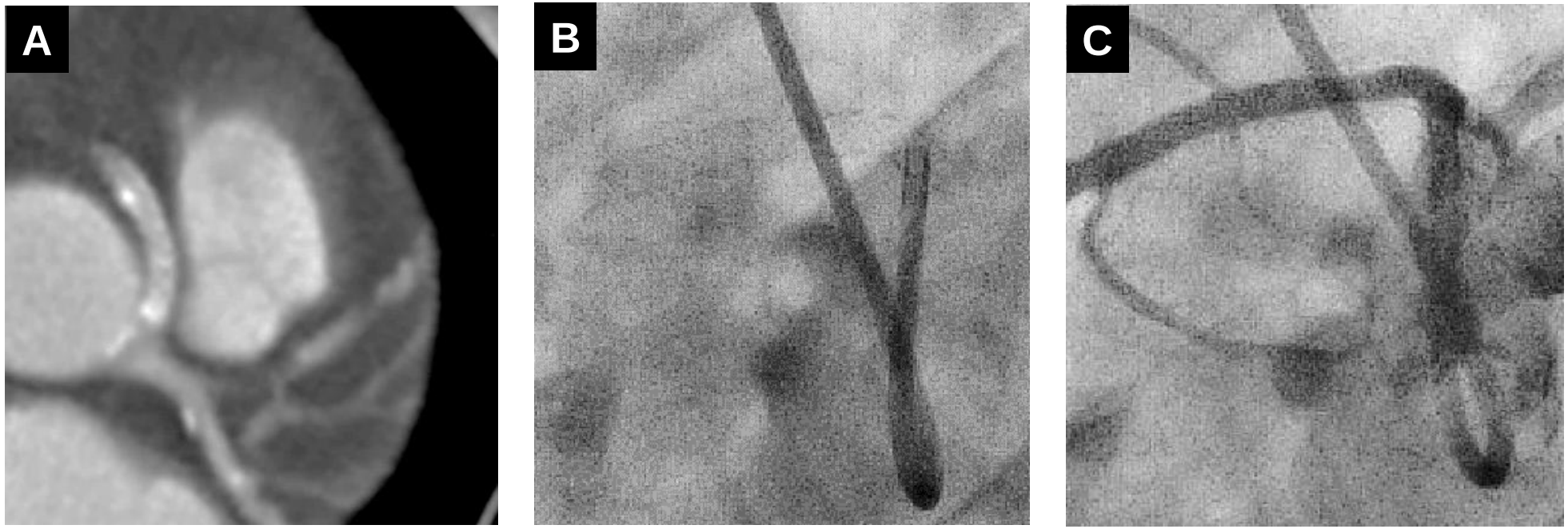


Angioplastie des anomalies de connexion des artères coronaires



ANOCOR stenting registry

RCA at 24-month follow up



MERCI