LE COIN DES INFLUENCEURS

APPAC **3-6 juin 2026**

ANOCOR : et si on pensait angioplastie?

Pierre Aubry, Hôpital Bichat, Paris, Centre Hospitalier, Gonesse, France
Philippe Degrell, INCCI, CHL, Luxembourg, Luxembourg
Yassine Ettagmouti, Clinique Européenne, Casablanca, Maroc

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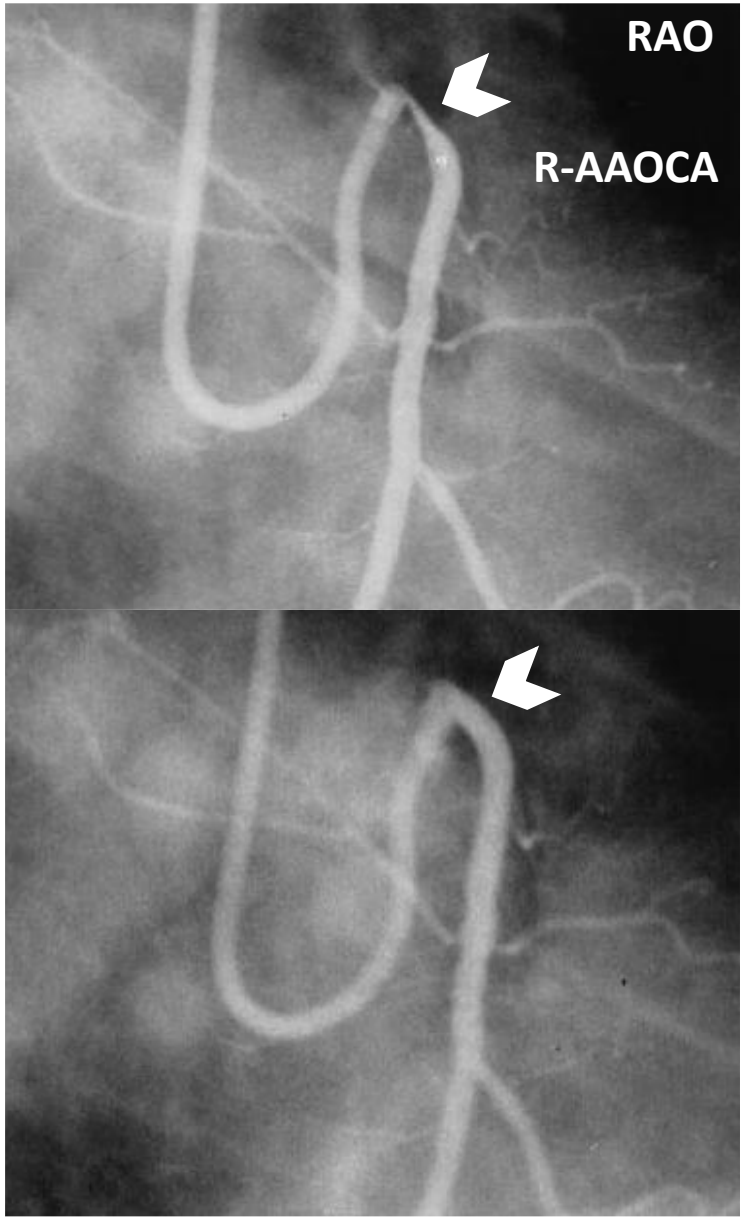
Six-Month Success of Intracoronary Stenting for Anomalous Coronary Arteries Associated With Myocardial Ischemia

Andrew J. Doorey, MD, Michael J. Pasquale, MD, James F. Lally, MD, Gary S. Mintz, MD, Erik Marshall, MD, and David A. Ramos, MD

THE AMERICAN JOURNAL OF CARDIOLOGY® VOL. 86 SEPTEMBER 1, 2000

25 years ago



- 12 patients
- 3 L-AAOCA / 9 R-AAOCA
- Mean age of 55 years [44-70]
- Ischemic symptoms
- Abnormal nuclear perfusion testing
- Angiographic success: 100%
- Bare metal stents
- No complications
- 6-month follow-up
- Normal myocardial functional tests

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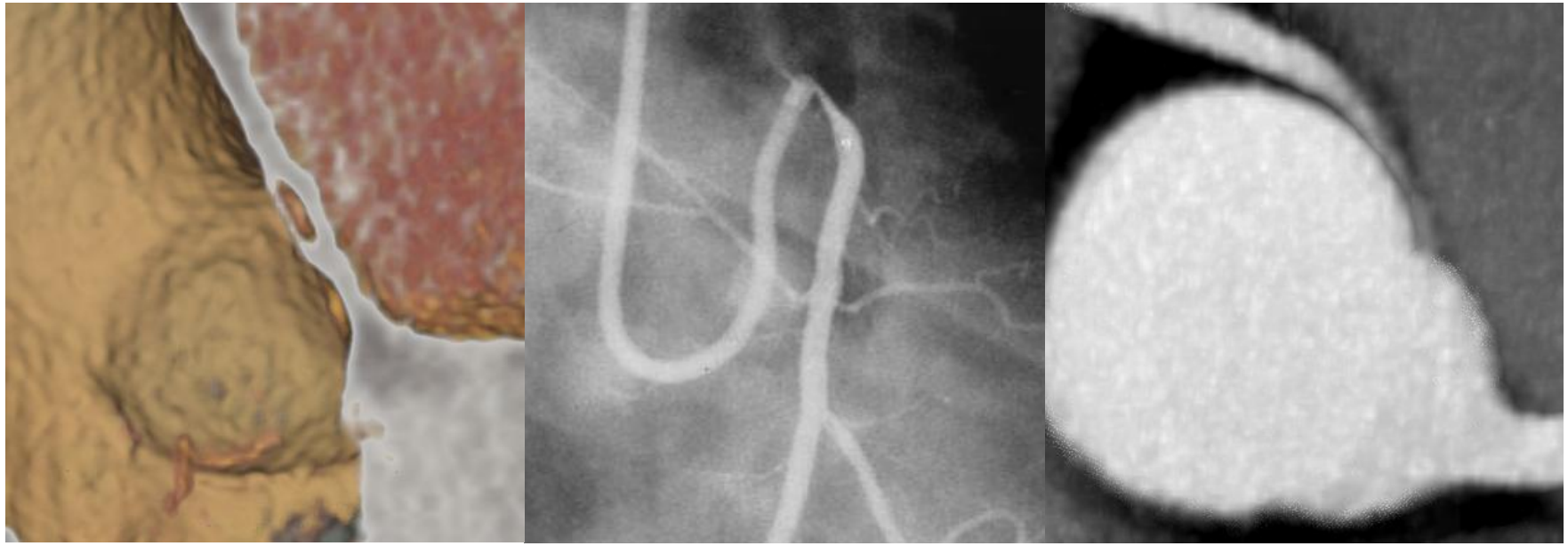
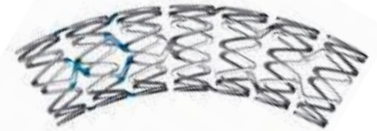
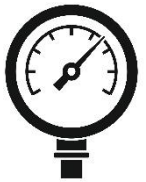
AAOCA stenting in intramural aortic passage



Φ 3.0/4.0 mm





16/24 bars

Are you irresponsible???

What are the risks of aortic/coronary dissection?

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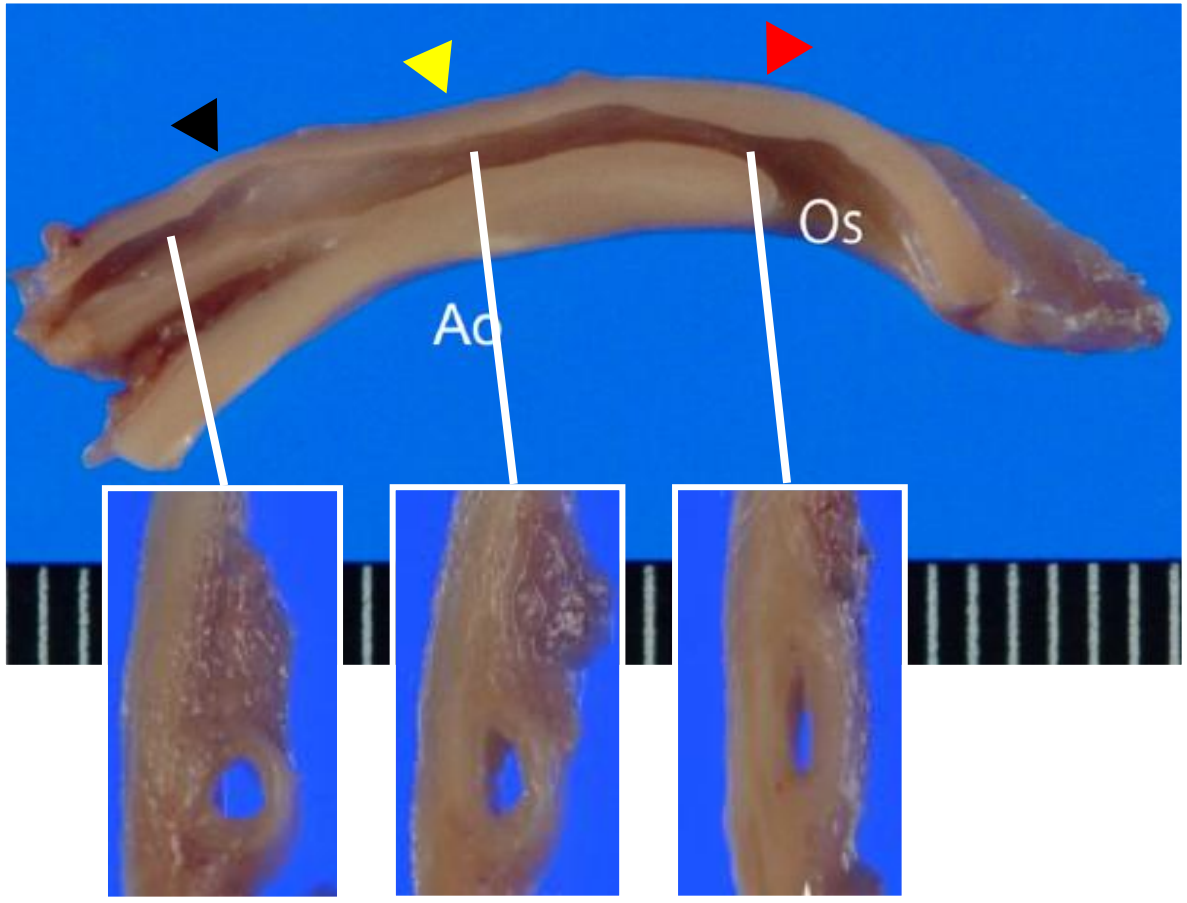
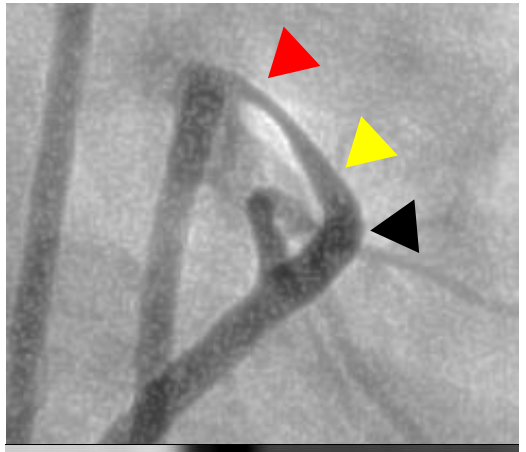
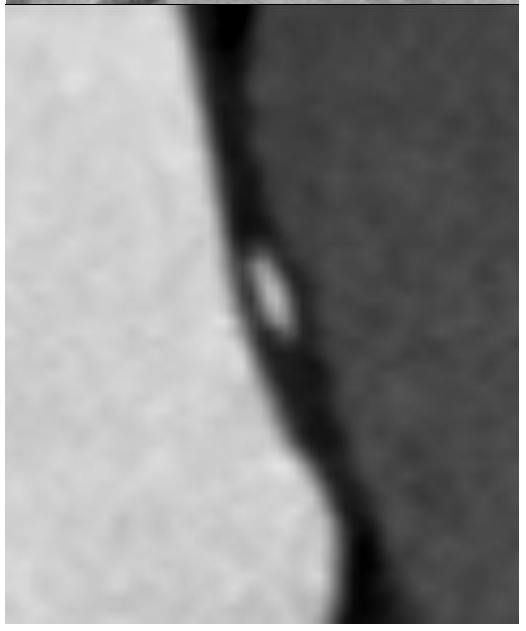
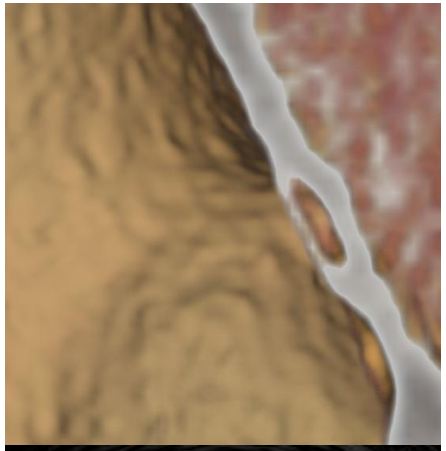
Passage intramural aortique

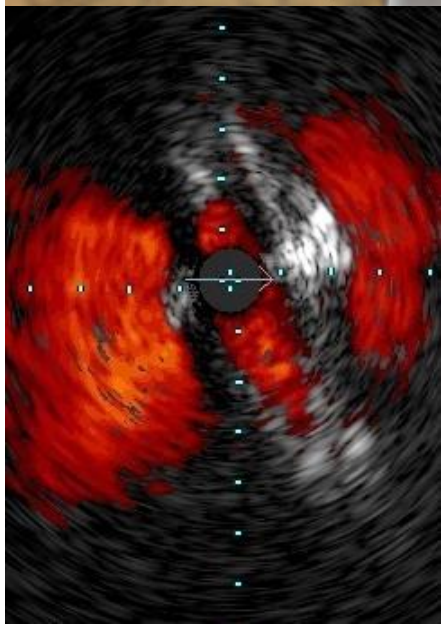


Hata Y et al. Cardiovasc Pathol. 2014.









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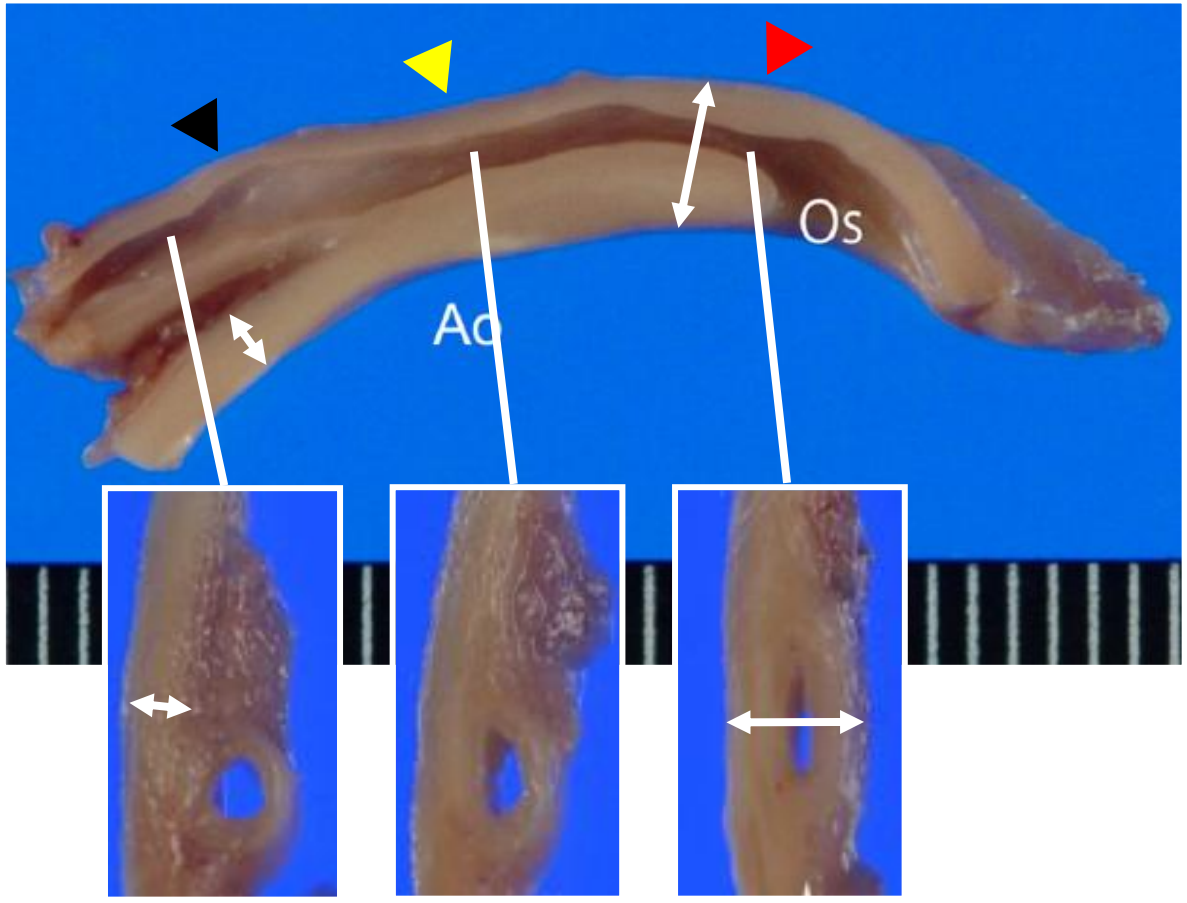
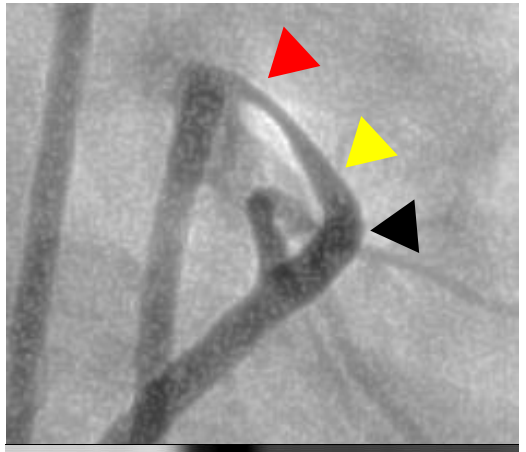
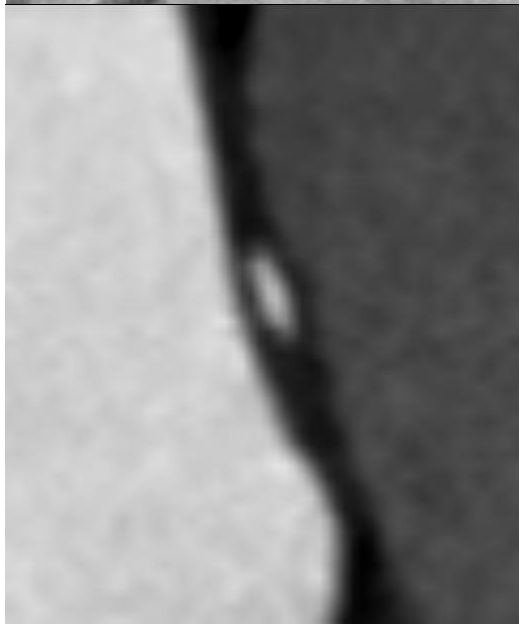
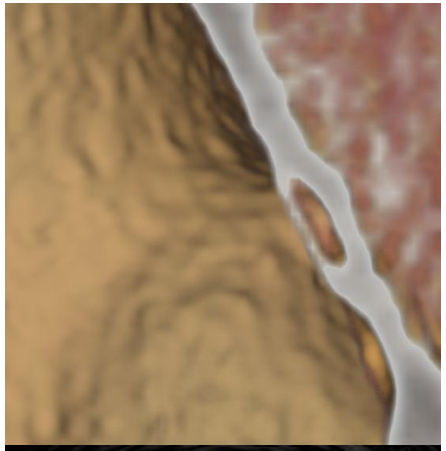
Passage intramural aortique

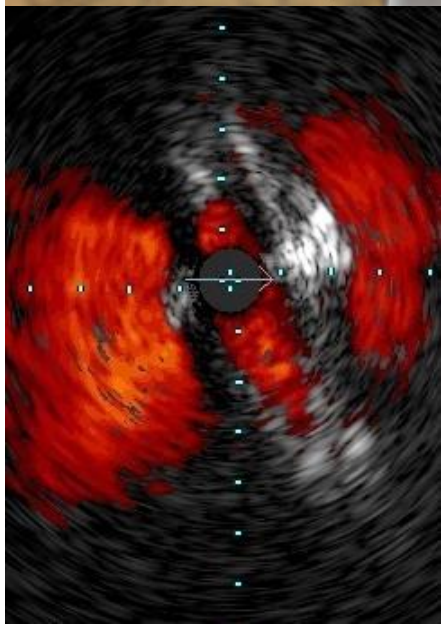


Hata Y et al. Cardiovasc Pathol. 2014.









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Stenting in AAOCA

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

Technical success and long-term outcomes after anomalous right coronary artery stenting with cardiac computed tomography angiography correlation

Darki A et al. Cathet Cardio Interv. 2020.

N=4

Place of Angioplasty for Coronary Artery Anomalies With Interarterial Course

Aubry P et al. Front Cardiovasc Med. 2021.

N=17

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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

Baumgartner H et al. Eur Heart J. 2020.

Guidelines AAOCA

CLINICAL PRACTICE GUIDELINES

2025 ACC/AHA/HRS/ISACHD/SCAI Guideline for the Management of Adults With Congenital

4.5.1. Anomalous Aortic Origin of a Coronary Artery

Recommendations for Anomalous Aortic Origin of a Coronary Artery Referenced studies that support recommendations are summarized in the Evidence Table.

COR	LOE	Recommendations
Therapeutic		
1	B-NR	3. In adults with symptomatic AAOCA or diagnostic evidence consistent with myocardial ischemia attributable to the anomalous artery, surgery is recommended.[6]
2a	C-EO	4. In adults with asymptomatic anomalous origin of the left coronary artery, surgery is reasonable in the presence of high-risk anatomy.*
2b	B-NR	5. In asymptomatic adults with an AAOCA from the opposite sinus and without evidence of ischemia or evidence of compromised coronary perfusion, the benefit of surgery is not well established, and continued observation or surgery may be reasonable.[6–8]

*High-risk findings such as ostial or proximal stenosis, slit-like orifice, acute angle of takeoff, or intramural course.

Gurvitz M. et al. Circulation. 2026.

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Expert consensus guidelines: Anomalous aortic origin of a coronary artery

Julie A. Brothers, MD,[a] Michele A. Frommelt, MD,[b] Robert D. B. Jaquiss, MD,[c] Robert J. Myerburg, MD,[d] Charles D. Fraser, Jr, MD,[e] and James S. Tweddell, MD[f]

Percutaneous Coronary Intervention

Due to safety issues with stenting anomalous coronary arteries in growing children, this procedure is not advisable in the pediatric population, **but may be considered in select cases in the adult population**.

J Thorac Cardiovasc Surg 2017;153:1440-57

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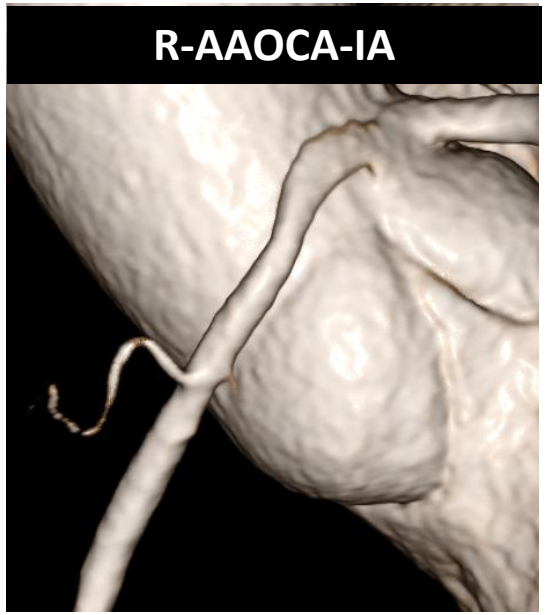
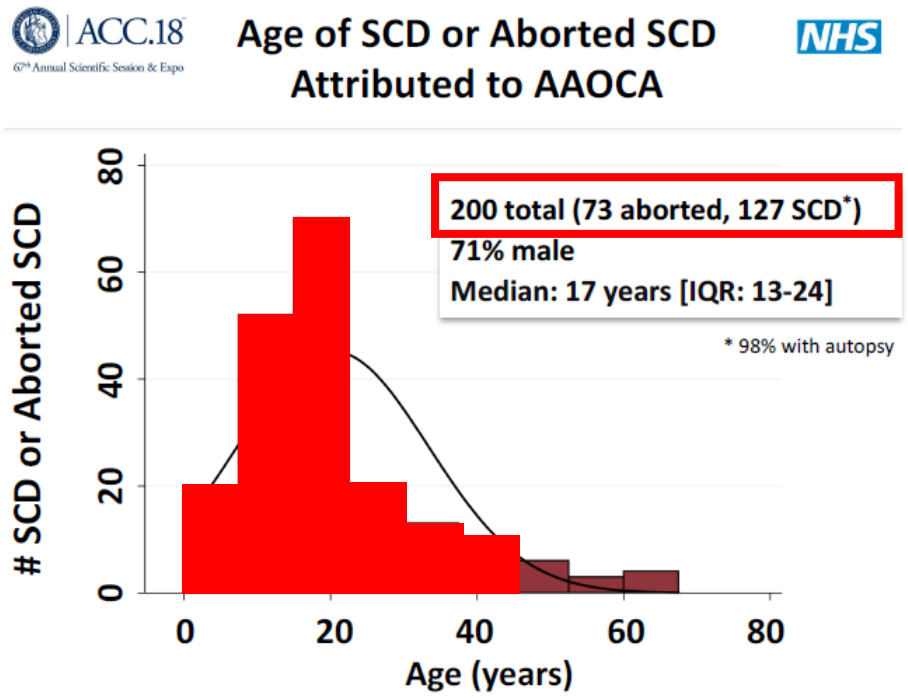


What is the rationale for stenting in AAOCA?



Shiwani H et al. ACC. 2018.

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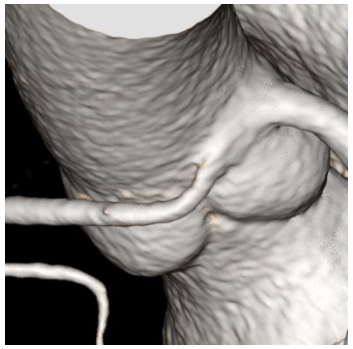
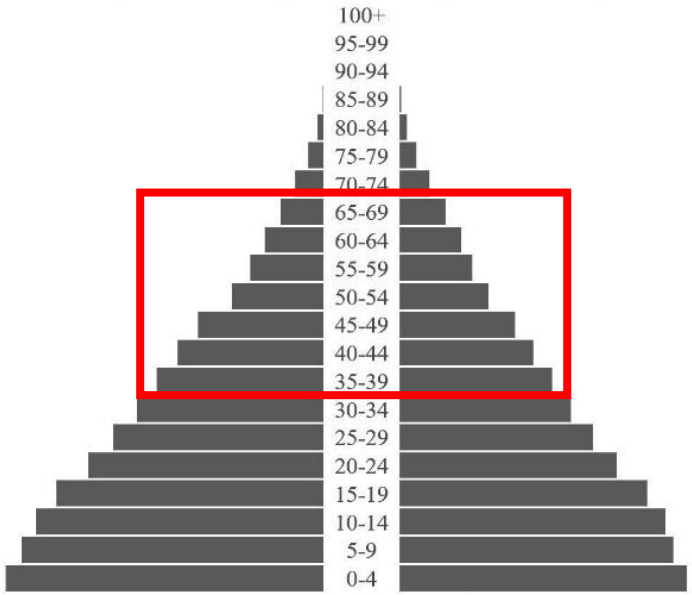
Rationnel pour un stenting – Staff ANOCOR

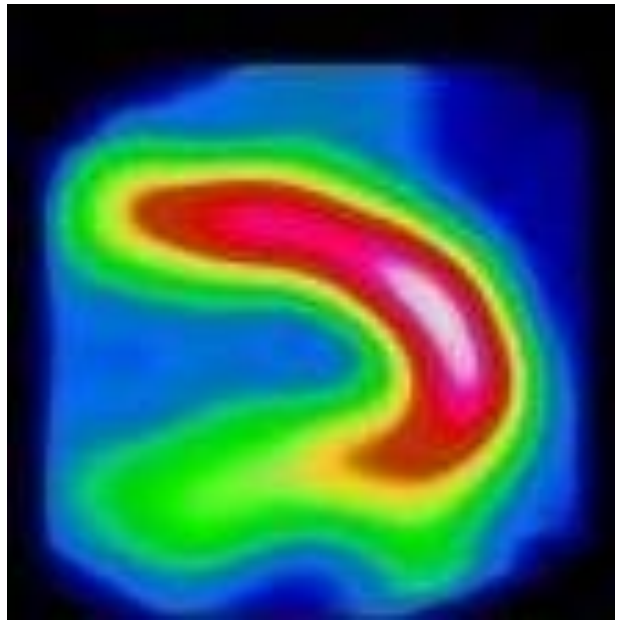
Symptômes ischémiques





Population > 35 ans

Ischémie myocardique



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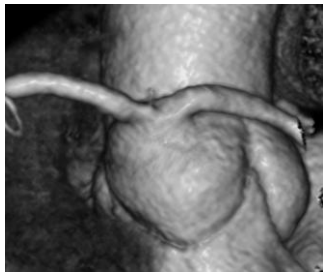
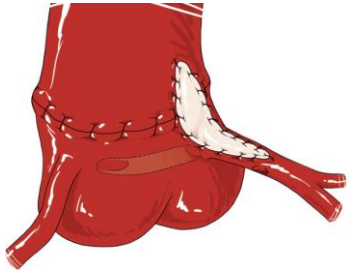
Staff ANOCOR

Activité 2025 : **220** dossiers analysés

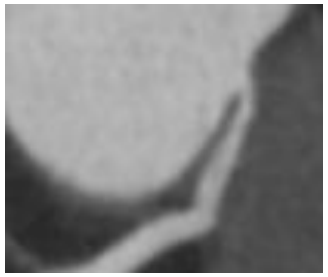
Proposition thérapeutique interventionnelle

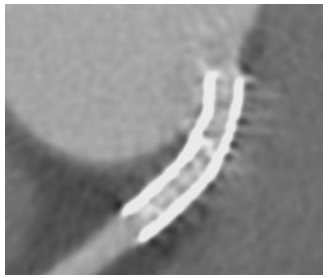
- Chirurgie : **15** dossiers (**7%)**





- Angioplastie : **7** dossiers (**3%)**





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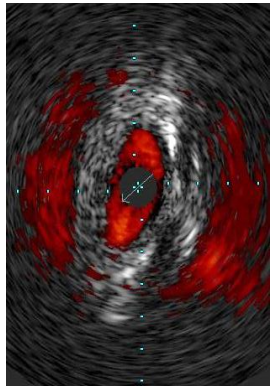
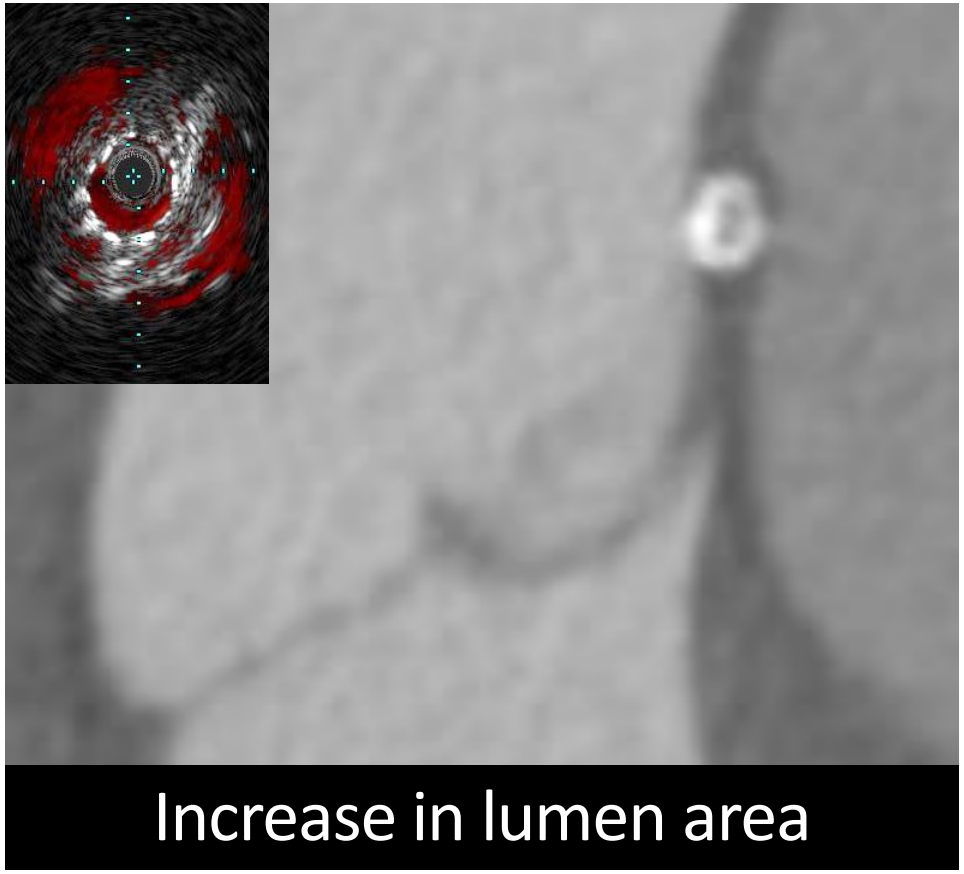
How can stenting work?

Fixed Component





Increase in lumen area

Dynamic Component

Resistance to aortic wall stress

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ANOCOR STENTING Registry

- ANOCOR working group (Bichat Hospital - Paris - France)
- Multicenter prospective observational study
- **2014 - ongoing (47 patients included by December 31, 2025)**
- Stenting in proximal course of a congenital anomalous coronary artery (ACA)
- De novo procedure or post-surgical failure
- Exclusion criteria: PCI for atherosclerosis stenosis in ectopic course

DIU cardiologie interventionnelle

Angioplasty of anomalous coronary arteries: Procedural and in-hospital outcomes of the ANOCOR STENTING cohort

Docteur Yassine Ettagmouti (Casablanca, Morocco) - January 2025

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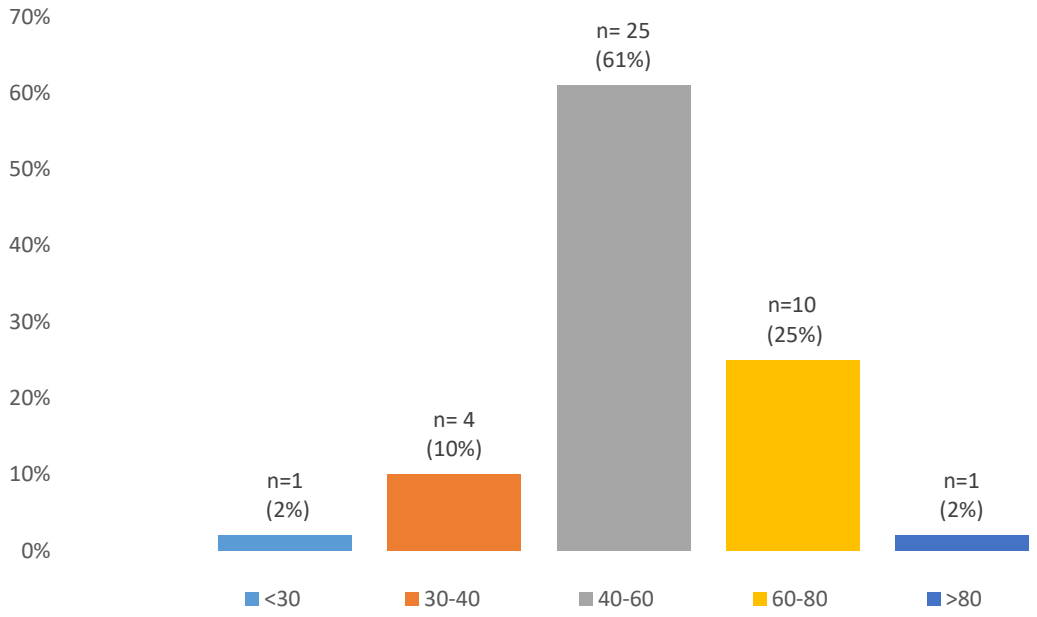
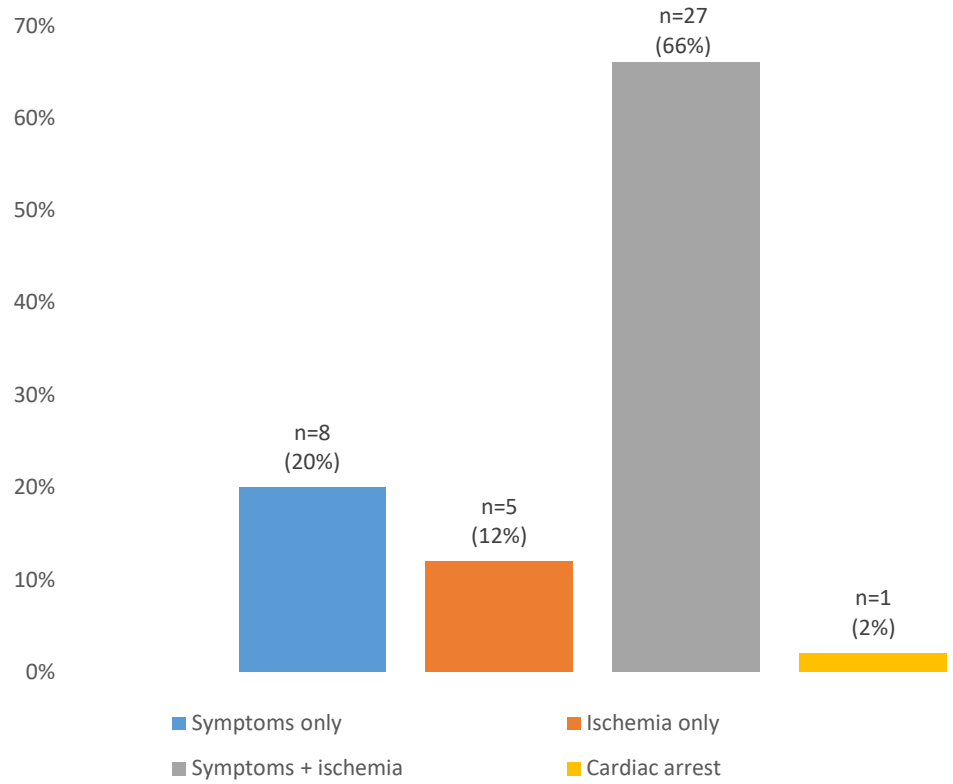
ANOCOR STENTING Registry

N=41

Male: 68% - Mean age: 54±10 years [29-82]



Age distribution (years)



Initial presentation

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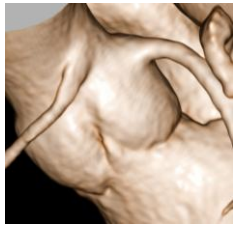
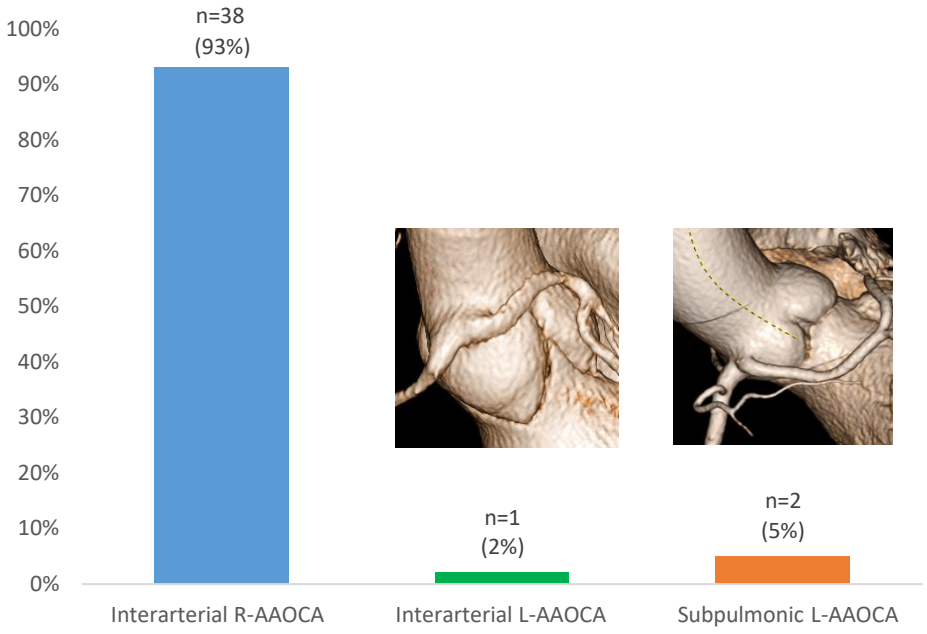
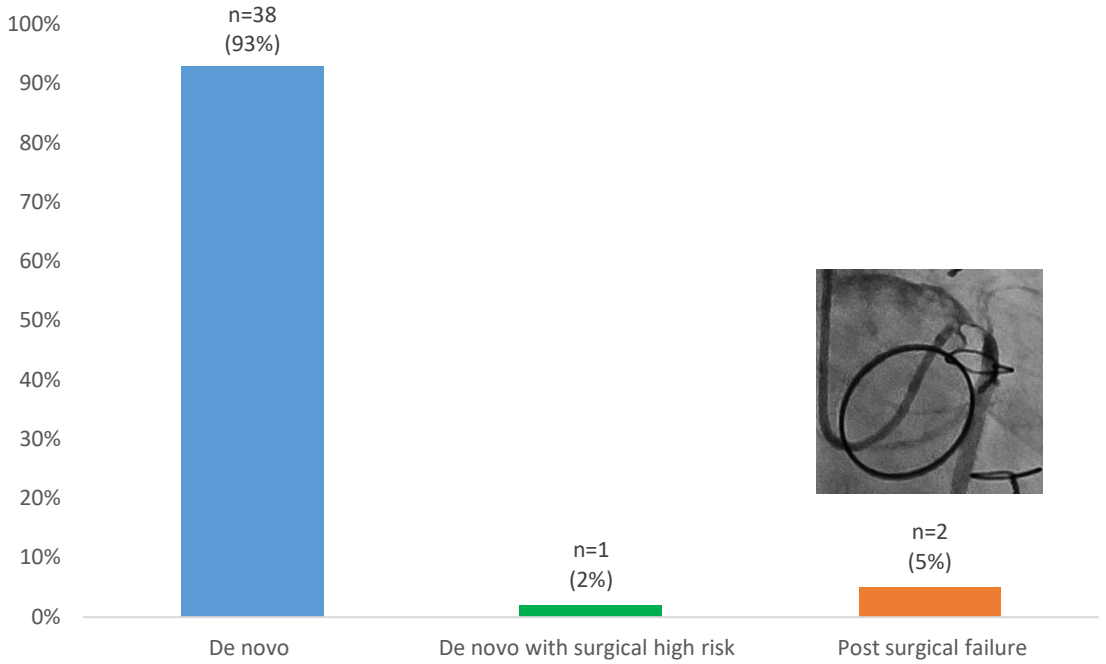
ANOCOR STENTING Registry N=41





Anatomical distribution



Stenting indication

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ANOCOR STENTING Registry N=41

Angiographic characteristics	N	%
No residual stenosis	34	83
Residual stenosis < 30%	7	17
TIMI 3 flow post stenting	41	100
Angiographic success	**41**	**100**

In-hospital outcomes	N	%
Death	0	
Myocardial infarction	0	
Recurrent angioplasty	0	
Emergent coronary surgery	0	
Coronary dissection	0	
Aortic dissection	0	
Major vascular adverse event	0	
Stroke	1	2
Clinical success	**40**	**98**

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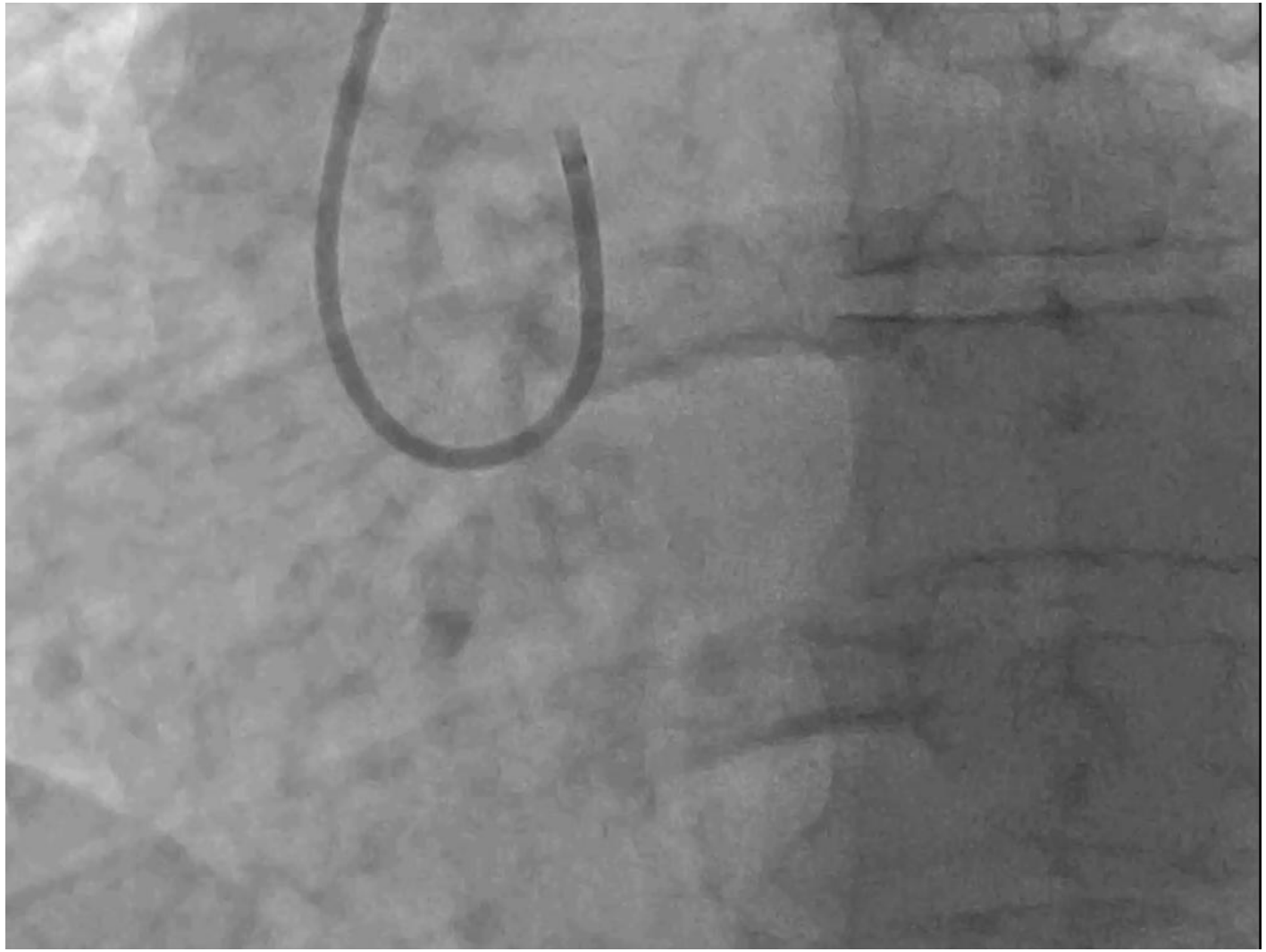
Angiographie



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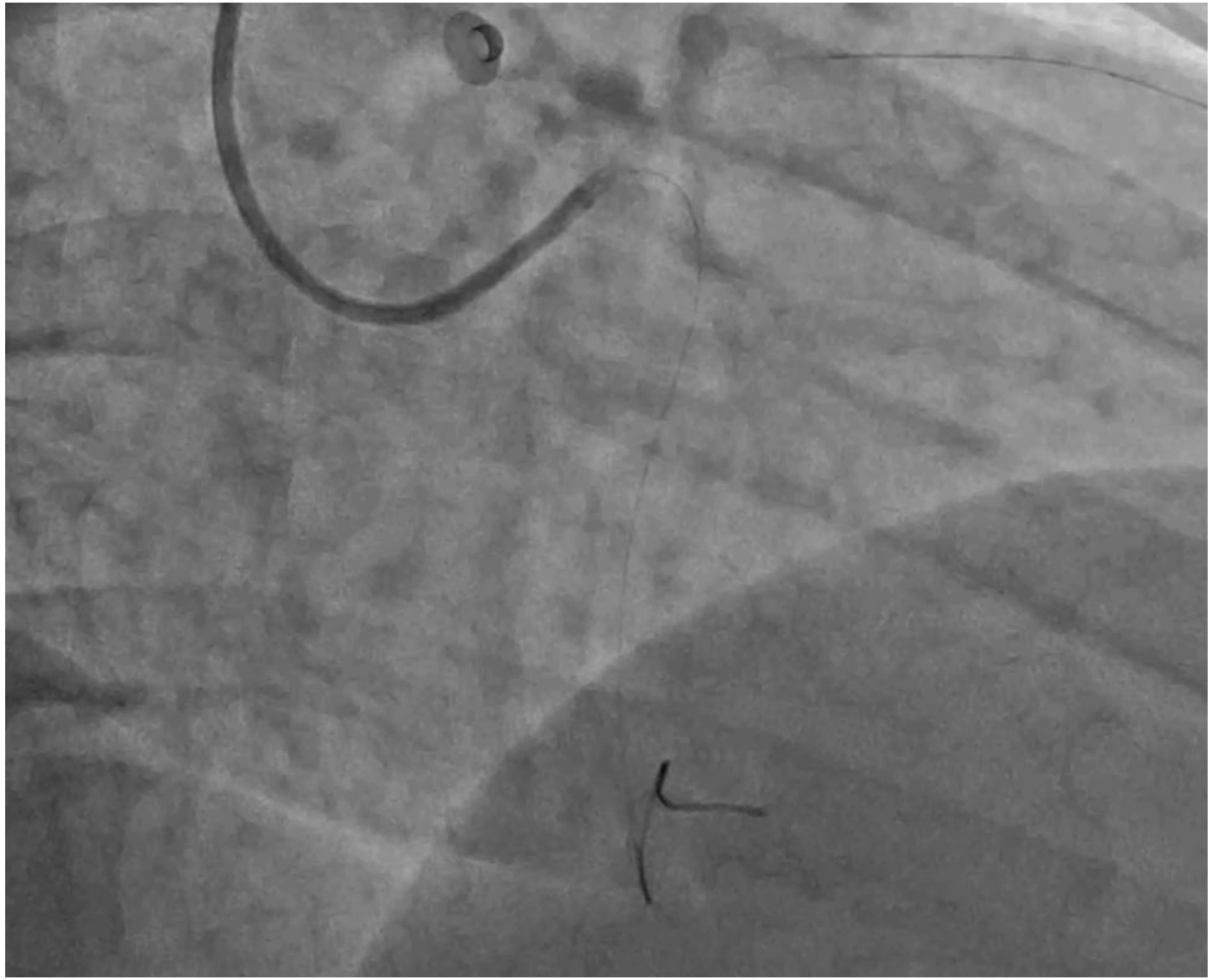
Angiographie

LE COIN DES INFLUENCEURS

Angiographie



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Stenting

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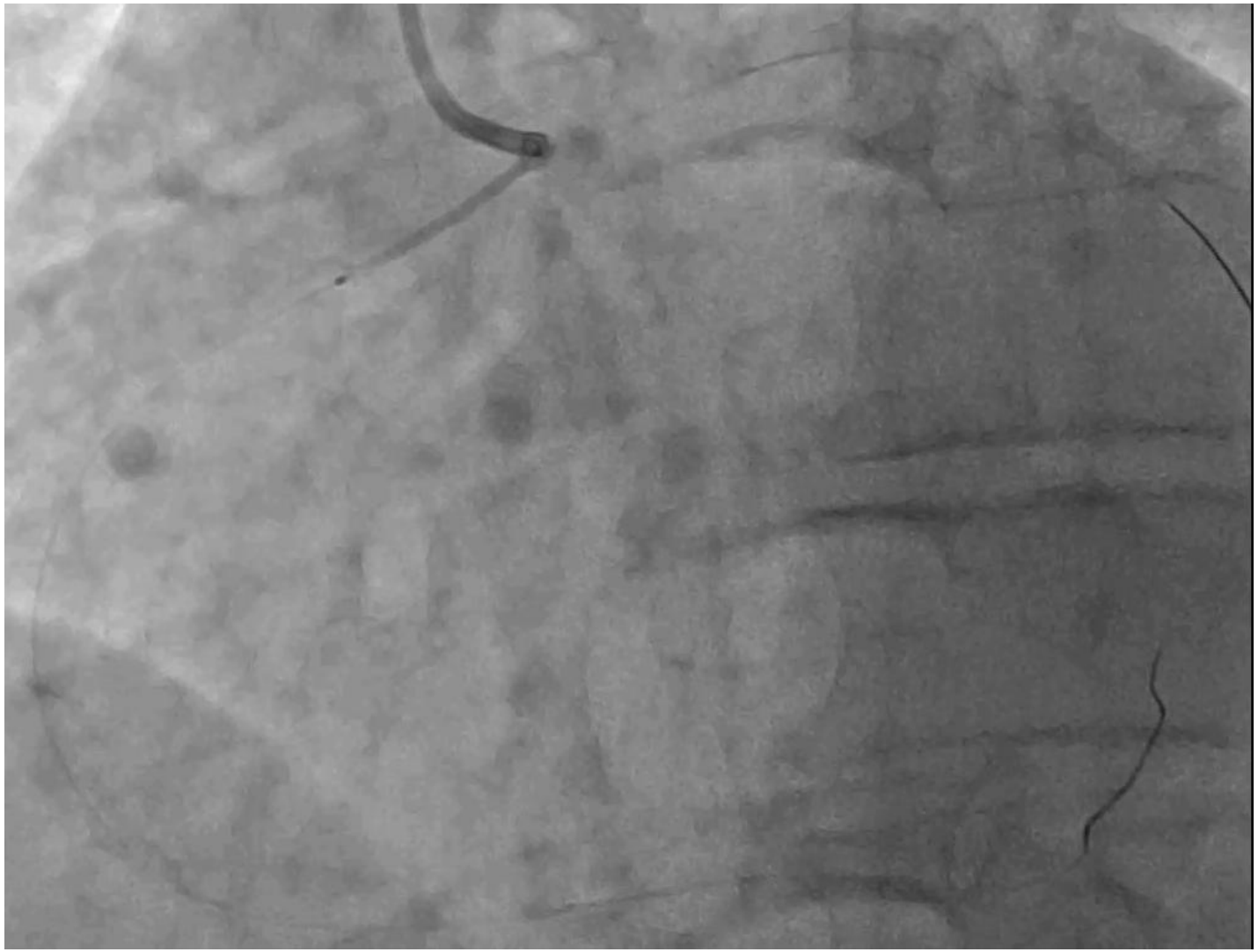
Stenting



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Contrôle

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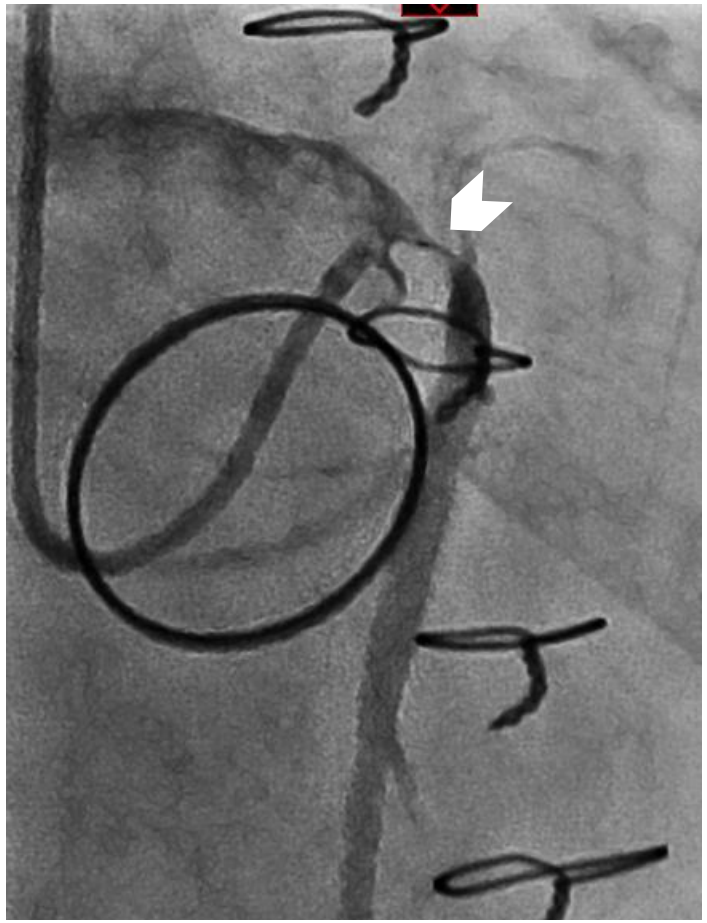
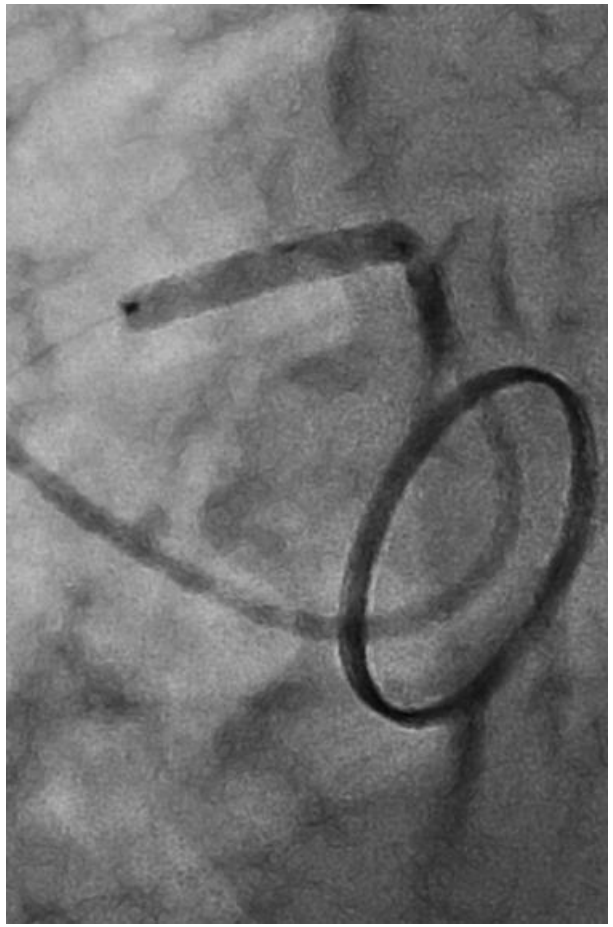
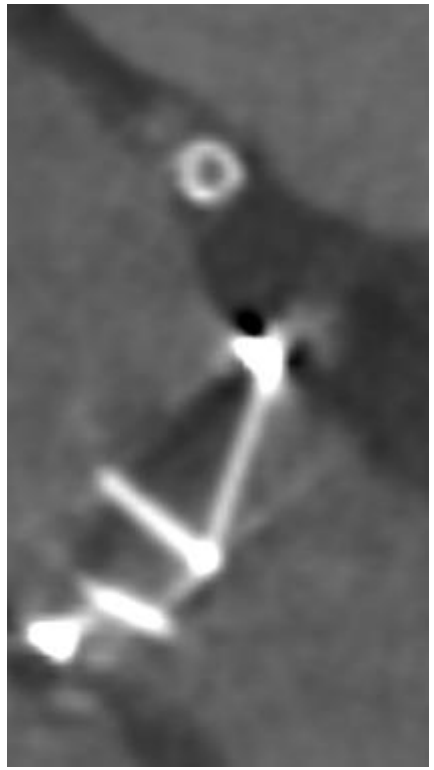
Stenting of AAOCA after surgery







Stenting in AAOCA

TABLE 1 | Main characteristics of patients included in series of AAOCA treated by angioplasty with stenting.

References	AAOCA type and number	Mean age years	BMS/DES number	Angiographic success (%)	Mean follow-up years	In-stent restenosis number (%)	Stent compression number (%)	Sudden cardiac death number
Doorey et al. (33)	3 Left/9 Right	56	12/0	100	0.5	3 (25)	1 (8)	0
Angelini et al. (35)	42 Right	48	3/39	100	5.0	4 (10)	0	0
Degrell et al. (39)	17 Right	51	1/16	100	2.0	2 (12)	0	0
Darki et al. (36)	4 Right	64	0/4	100	8.5	NA	0	0

AAOCA, anomalous aortic origin of a coronary artery; BMS, bare metal stent; DES, drug eluting stent.

Aubry P et al. FCVM. 2021.

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frontiers in Cardiovascular Medicine

MINI REVIEW
published: 18 January 2021
doi: 10.3389/fcvm.2020.596018

Place of Angioplasty for Coronary Artery Anomalies With Interarterial Course

Pierre Aubry[1,2], Xavier Halna du Fretay[3], Olivier Boudvillain[1], Philippe Degrell[4] and the ANOCOR Working Group*

ICR3 Interventional Cardiology: Reviews, Research, Resources

EDITORIAL
Coronary

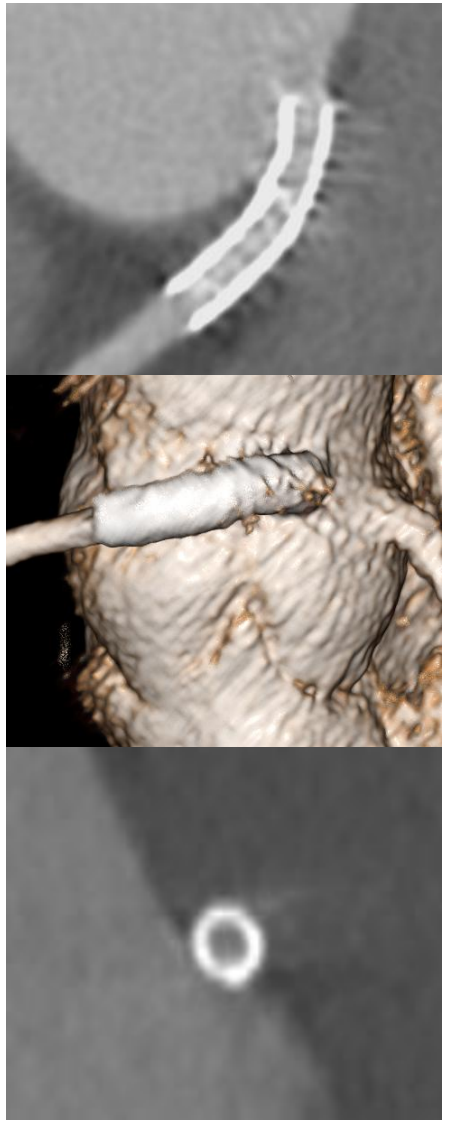
Percutaneous Coronary Intervention in Anomalous Right Coronary Artery: Ready to Implement in Clinical Routine?

Anselm W Stark and Christoph Gräni

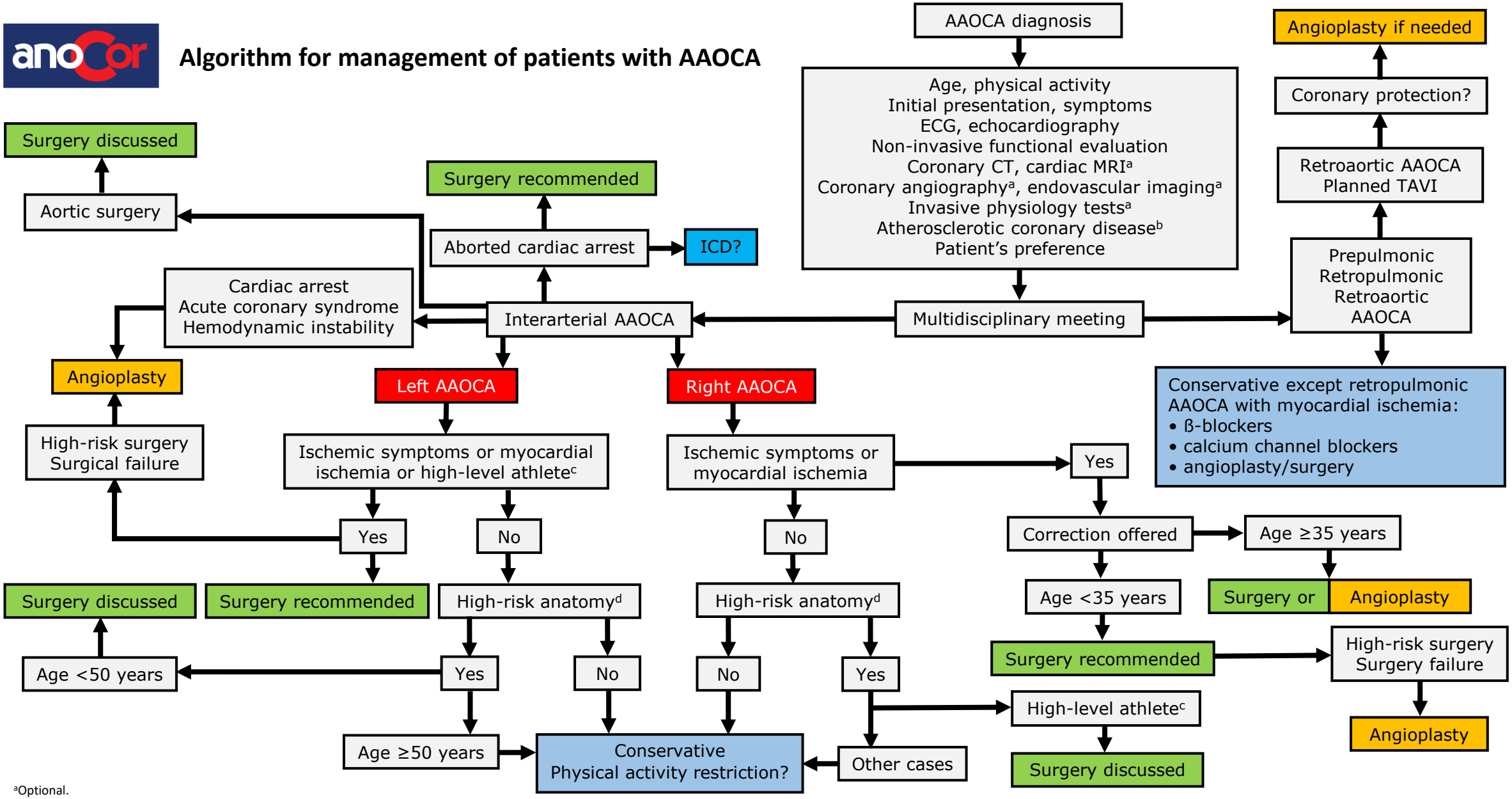
Department of Cardiology, Inselspital, Bern University Hospital, University of Bern, Bern, Switzerland

Interv Cardiol. 2022.

Le stenting d'ANOCOR ne devrait plus être considérée avec appréhension dans une population sélectionnée.



Algorithm for management of patients with AAOCA



[a]Optional.
[b]Surgical technique adapted.
[c]Physical activity according to ESC guidelines.
[d]Intramural aortic passage.
AAOCA: Anomalous aortic origin of a coronary artery. ANOCOR: Anomalies coronaires congénitales. CT: Computed tomography. ECG: Electrocardiogram. ICD: Implantable cardioverter-defibrillator. MRI: Magnetic resonance imaging. TAVI: transcatheter aortic valve implantation.

anoCor

Anomalies Coronaires Congénitales

Contactez-nous

www.anocor.fr

Groupe multidisciplinaire ANOCOR

Anomalies Coronaires Congénitales

Ce site est destiné aux professionnels de santé et aux patients, ainsi qu'à leur entourage, souhaitant obtenir des informations sur les Anomalies Coronaires Congénitales (ANOCOR). Les formes anatomiques sont très nombreuses, allant de la banale anomalie sans conséquence clinique aux anomalies pouvant être responsables de symptômes cardiaques graves dont l'arrêt cardiaque. Même si les techniques d'imagerie, surtout radiologiques, permettent le diagnostic de ces anomalies rares, leur compréhension reste incomplète et leur prise en charge n'est pas encore parfaitement codifiée. Le site ANOCOR a pour objectifs d'aider les professionnels de santé dans leur démarche de recherche et de transmettre aux patients nos connaissances actuelles. Bonne navigation.