



SCA ST + et Bifurcation

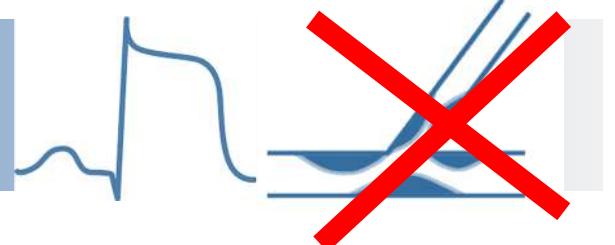
Pascal Motreff, 27 Janvier 2022

Conflits d'intérêts : consulting Abbott, Medtronic, Terumo

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- Evidence Based Medicine
- **Consensus d'experts, partage d'expériences, bon sens**

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ESC

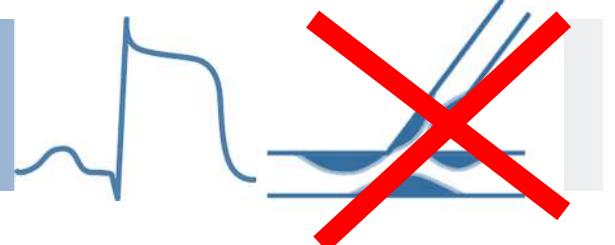
European Heart Journal (2018) **39**, 119–177

European Society
of Cardiology
doi:10.1093/eurheartj/ehx393

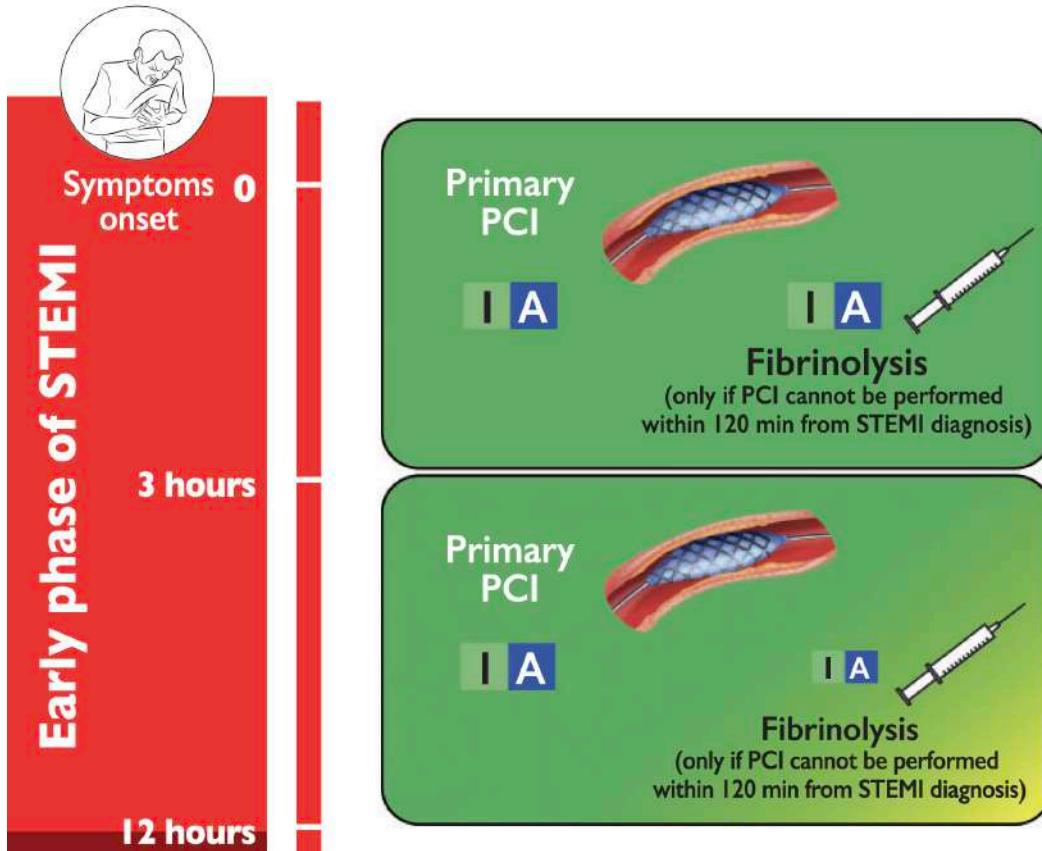
ESC GUIDELINES

**2017 ESC Guidelines for the management of
acute myocardial infarction in patients
presenting with ST-segment elevation**

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Faire vite....ttt antithrombotique optimal, voie radiale, DES



IRA technique

Stenting is recommended (over balloon angioplasty) for primary PCI.^{146,147}

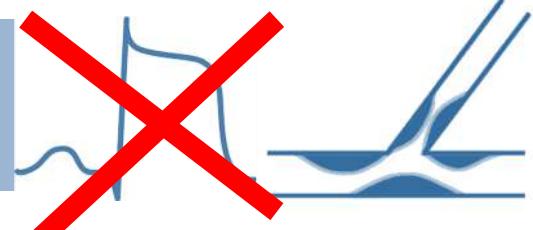
	A
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Stenting with new-generation DES is recommended over BMS for primary PCI.^{148–151,178,179}

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Radial access is recommended over femoral access if performed by an experienced radial operator.^{143–145,180}

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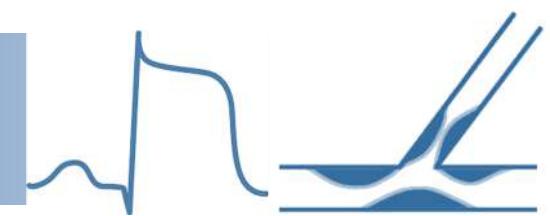
Percutaneous coronary intervention for bifurcation coronary lesions: the 15th consensus document from the European Bifurcation Club



Francesco Burzotta^{1*}, MD, PhD; Jens Flensted Lassen², MD, PhD; Thierry Lefèvre³, MD; Adrian P. Banning⁴, MD, PhD; Yiannis S. Chatzizisis⁵, MD, PhD; Thomas W. Johnson⁶, MD; Miroslaw Ferenc⁷, MD, PhD; Sudhir Rathore⁸, MD; Remo Albiero⁹, MD; Manuel Pan¹⁰, MD, PhD; Olivier Darremont¹¹, MD; David Hildick-Smith¹², MD; Alaide Chieffo¹³, MD; Marco Zimarino¹⁴, MD, PhD; Yves Louvard³, MD; Goran Stankovic¹⁵, MD, PhD

One-stent strategy is recommended for the vast majority of bifurcated lesions and is based on a “provisional SB stenting philosophy” (stent implantation in the MV eventually followed by SB intervention and stenting if needed)

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- **Aucune étude ou reco. dans ST+ dédiées aux bifurcations**
- **SCA ST+ exclus études menées sur bifurcations**



**Traiter les bifurcations en phase aiguë
comme dans le SCC ?**

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Particularités des bifurcations en phase aiguë

- On ne connaît pas la lésion ni le patient (pas d'anticipation)
- Procédure ad hoc, parfois nocturne, seul opérateur
- Instabilité hémodynamique, rythmique
- Contexte **thrombogène**
- Objectifs : **sauver patient** > sauver myocarde > résultat «cosmétique»

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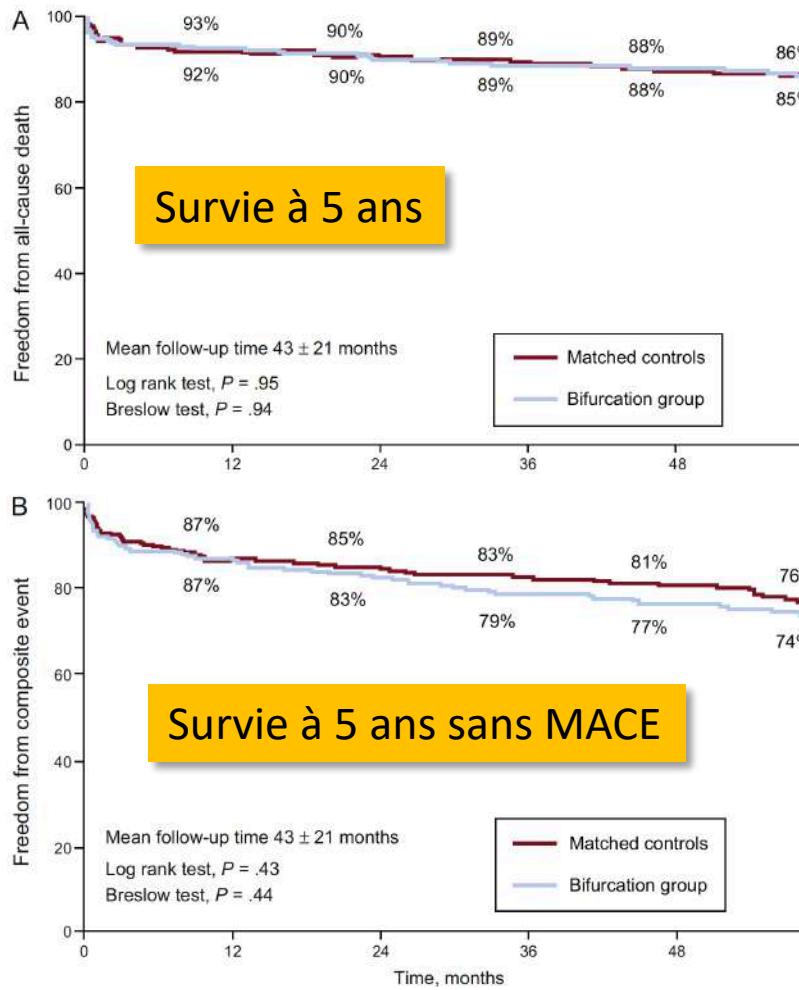
Particularités des bifurcations en phase aiguë

Editorial

Bifurcation Lesions Causing an STEMI. Are They a Different Animal?

In conclusion, bifurcation lesions causing acute coronary syndromes can be connected to additional anatomical complexities that can affect the outcomes of their percutaneous treatment. However, based on these 2 important articles, we can answer the question posed in the title and state that **bifurcation lesions causing STEMI are not a different animal from bifurcation lesions in other clinical contexts.**

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Original article

Bifurcation Culprit Lesions in ST-segment Elevation Myocardial Infarction: Procedural Success and 5-year Outcome Compared With Nonbifurcation Lesions

2746 STEMI dont **274 Bifurc**, pronostic après matching

CONCLUSIONS

A BCL can be found in **10% of primary or rescue PCI in STEMI** patients, anatomically located mainly in left anterior descending artery-diagonal BIF. Primary PCI in this setting is **technically more complex** with increased procedural time and contrast use. However, compared with a propensity-matched cohort of non-BCL patients, **a predominant single-stent strategy led to similar MB angiographic success**, without differences in 30-day or 5-year clinical outcomes.

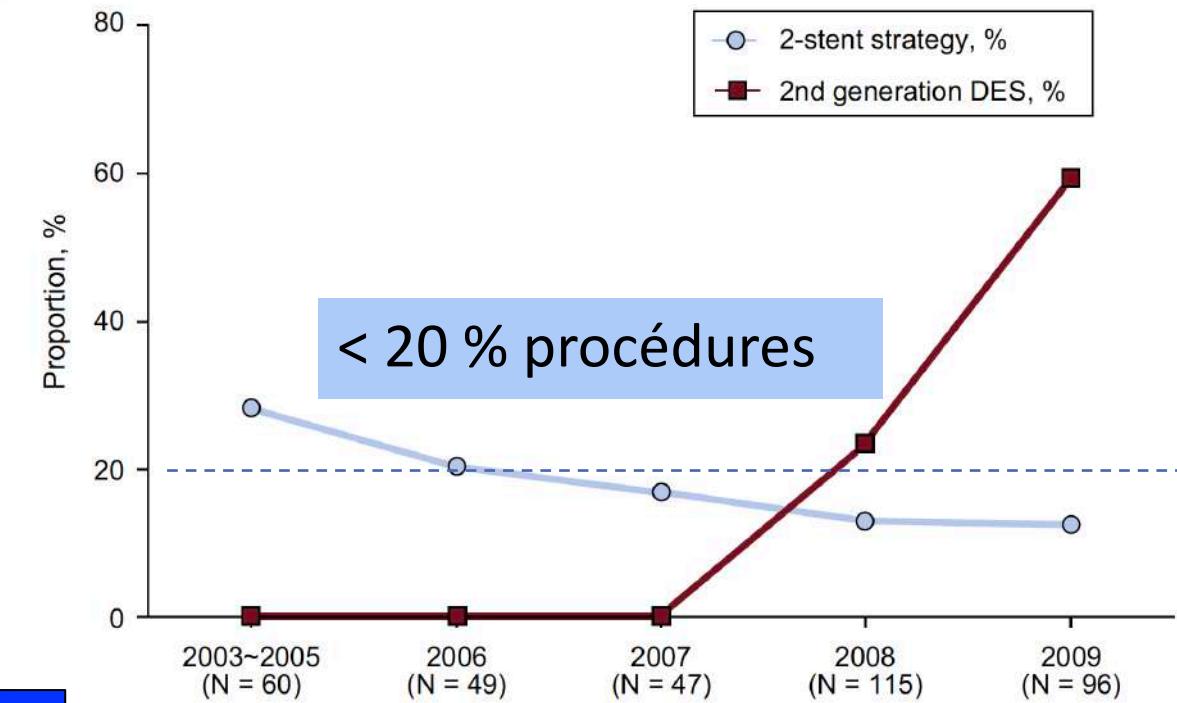
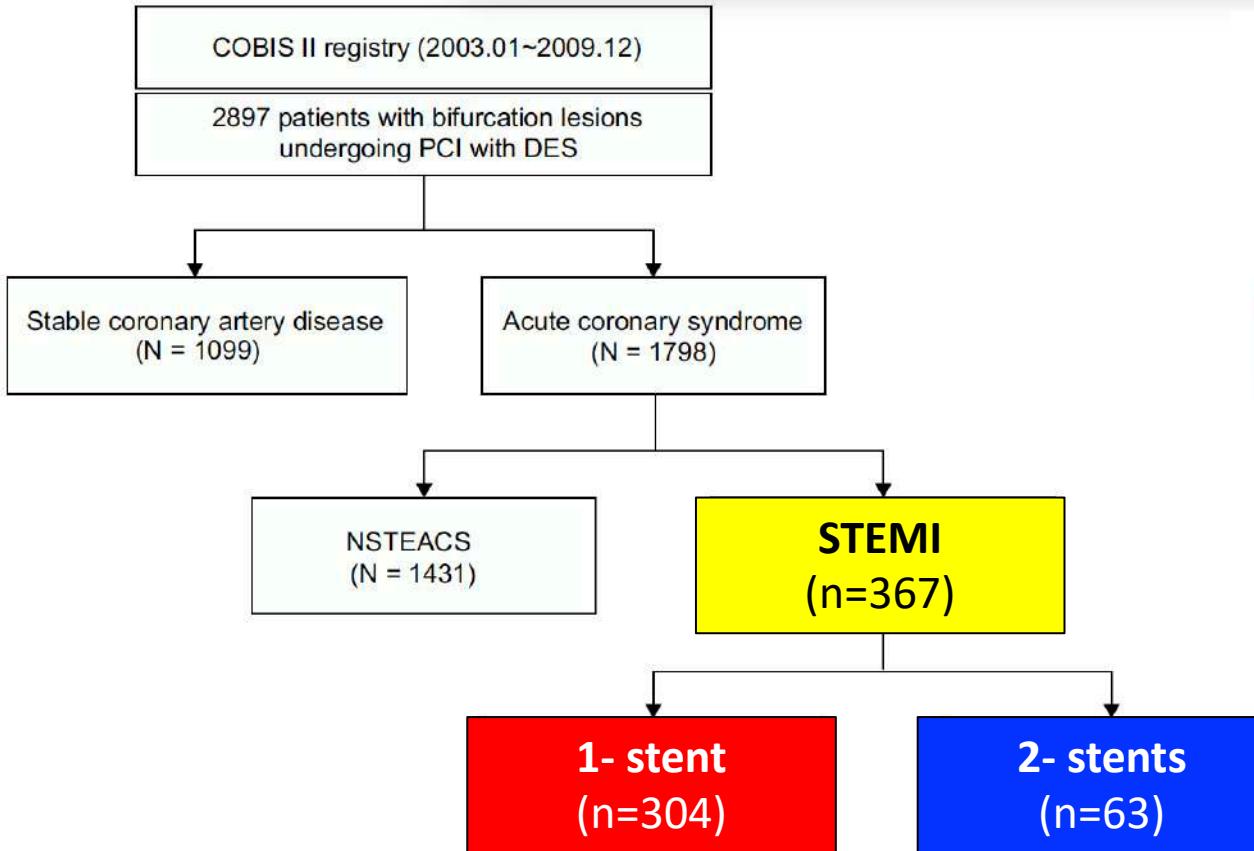
84%

Salinas P, Rev Esp Cardiol 2018

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Original article

Treatment Strategy for STEMI With Bifurcation Culprit Lesion Undergoing Primary PCI: The COBIS II Registry

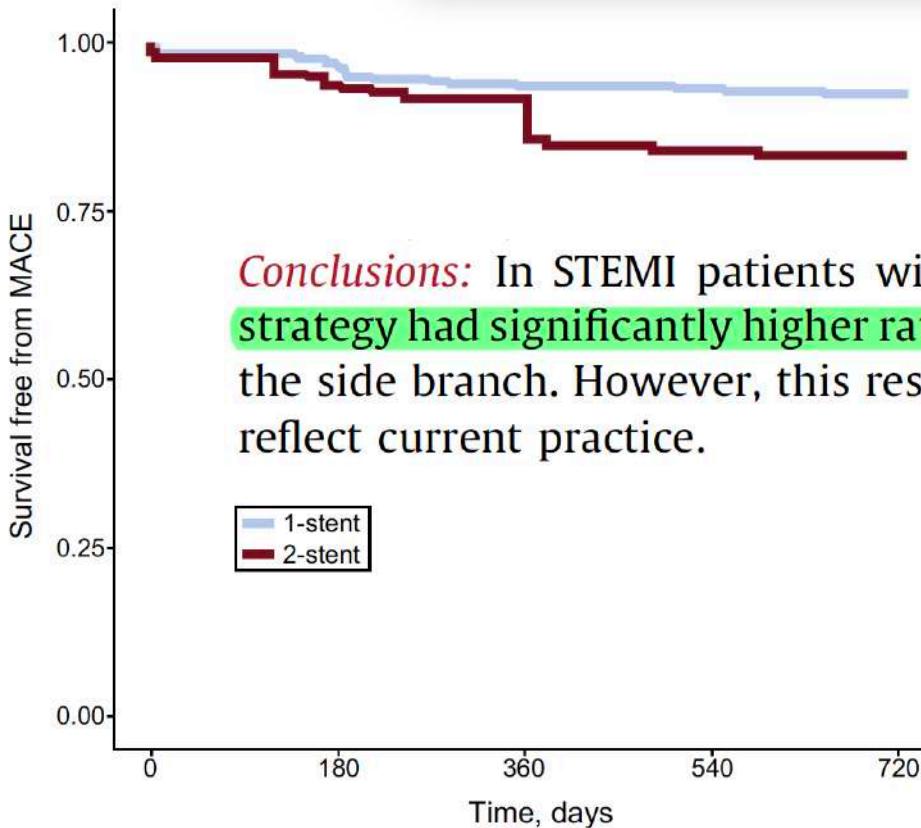


Choi KH, Rev Esp Cardiol 2018

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Original article

Treatment Strategy for STEMI With Bifurcation Culprit Lesion Undergoing Primary PCI: The COBIS II Registry



Conclusions: In STEMI patients with bifurcation culprit lesions undergoing primary PCI, the 2-stent strategy had significantly higher rates of MACE than the 1-stent strategy, despite successful treatment of the side branch. However, this result should be interpreted with caution because this study does not reflect current practice.

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Original Studies

Bifurcation Stenting in Patients with ST-Segment Elevation Myocardial Infarction: An Analysis from DKCRUSH II Randomized Study

63 STEMI issus des 370 pts **DKCRUSH II (17%)**

CONCLUSIONS

Bifurcation stenting in patients with STEMI is safe and feasible. Using the two different stenting techniques, PS and DK crush stenting, we found that the immediate and midterm clinical outcomes were comparable. This finding has potentially important clinical implication, as it may address the safety of bifurcation stenting in patients with STEMI.

TABLE III. Clinical Outcomes at 12 Month

	Total (N = 63)	Provisional stenting (N = 30)	DK Crush stenting (N = 33)	P value
Procedural success (%)	61 (97)	30 (100)	31 (94)	0.34
Angiographic Success (main vessel) (%)	61 (97)	30 (100)	31 (94)	0.34
Angiographic success (side branch) (%)	63 (100)	30 (100)	33 (100)	NS
TLR in-hospital (%)	0 (0)	0	0	NS
6 months	0 (0)	0	0	NS
12 months	7 (11)	3 (10)	4 (12)	0.94
TVR in-hospital (%)	0 (0)	0	0	NS
6 months	0 (0)	0	0	NS
12 months	8 (12)	3 (10)	5 (15)	0.71
Cardiac death in-hospital (%)	0 (0)	0	0	NS
6 months	2 (3)	2 (7)	0 (0)	0.22
12 months	2 (3)	2 (7)	0 (0)	0.22
Death in-hospital (%)	0 (0)	0	0	NS
6 months	2 (3)	0	2 (6)	0.49
12 months	4(6)	2 (7)	2 (6)	0.22
ST (%)				
6 months	0	0	0	NS
12 months	0	0	0	NS
MACE in-hospital (%)	0	0	0	NS
6 months	4 (6)	2 (7)	2 (6)	0.93
12 months	14 (22)	7 (23)	7 (21)	0.97

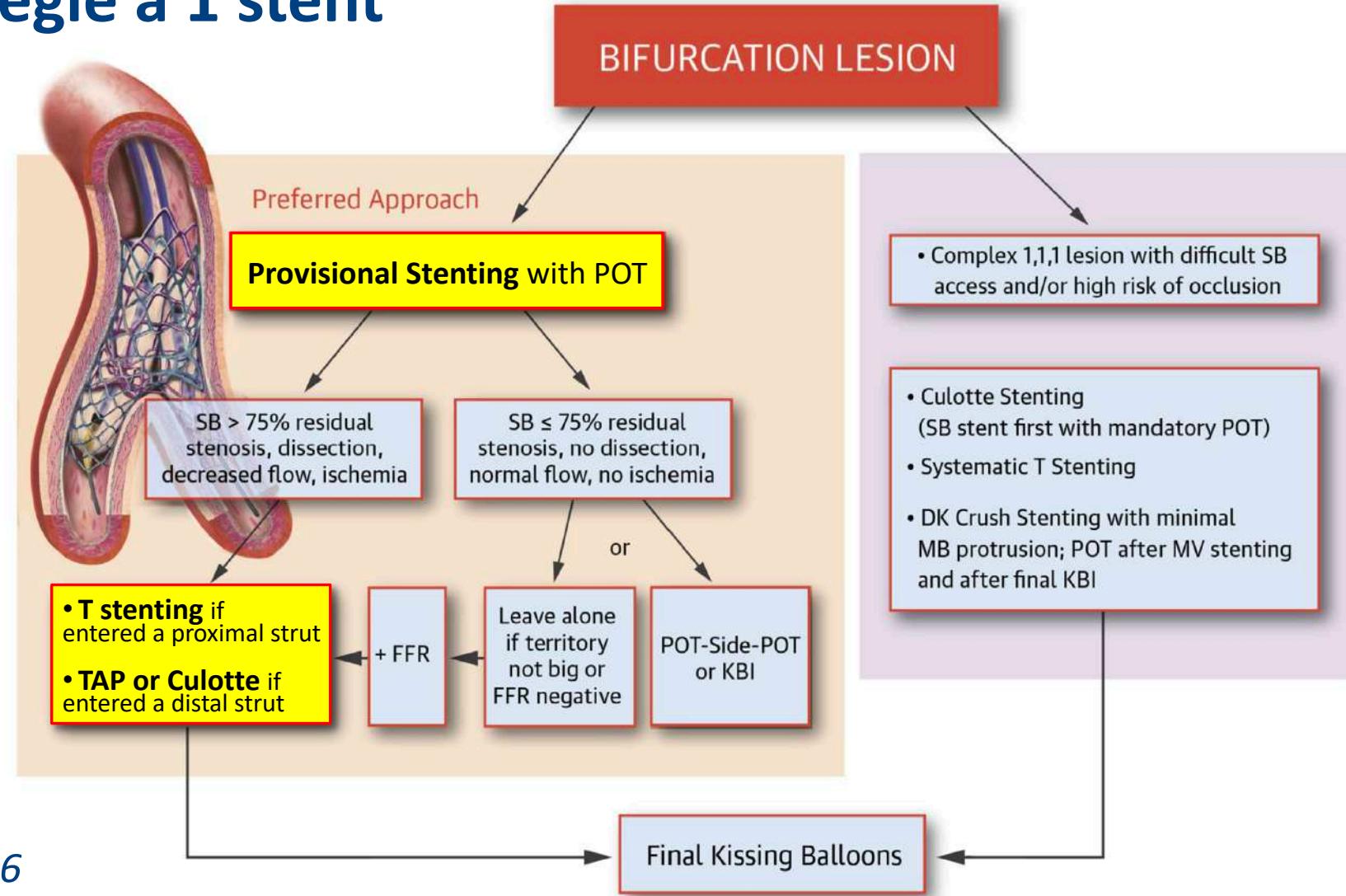
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Stratégies à 2 stents font aussi bien que stratégie à 1 stent



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Privilégier stratégie à 1 stent



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Thrombo-aspiration, Stratégie différée

<p>Routine use of thrombus aspiration is not recommended.^{157,159}</p>	III	A
<p>Routine use of deferred stenting is not recommended.^{153–155}</p>	III	B

Eur Heart J 2018

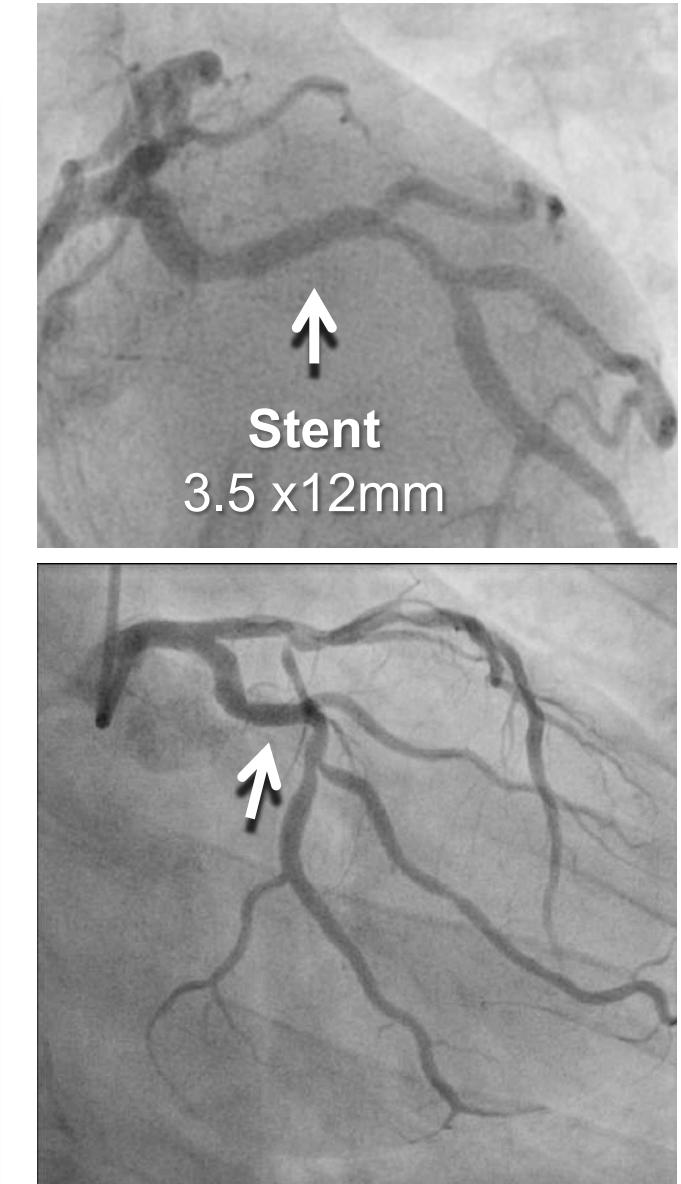
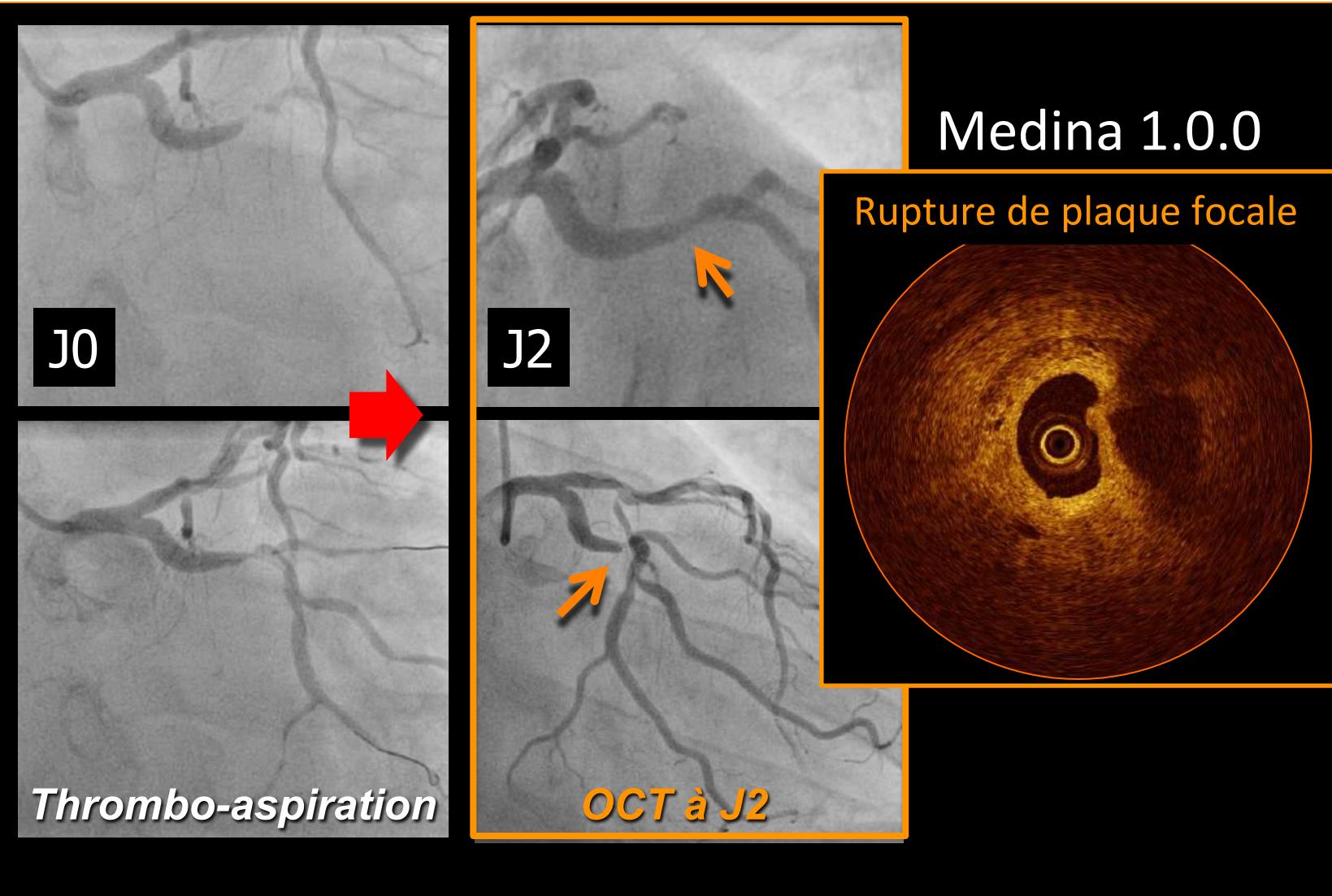
Non recommandée en routine... mais

- Véritable analyse de la lésion après déthrombose : « **Medina nettoyée** »
- Impacte stratégie de stenting
- Permet complément ou optimisation du traitement, guidé par imagerie

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Cas n° 1

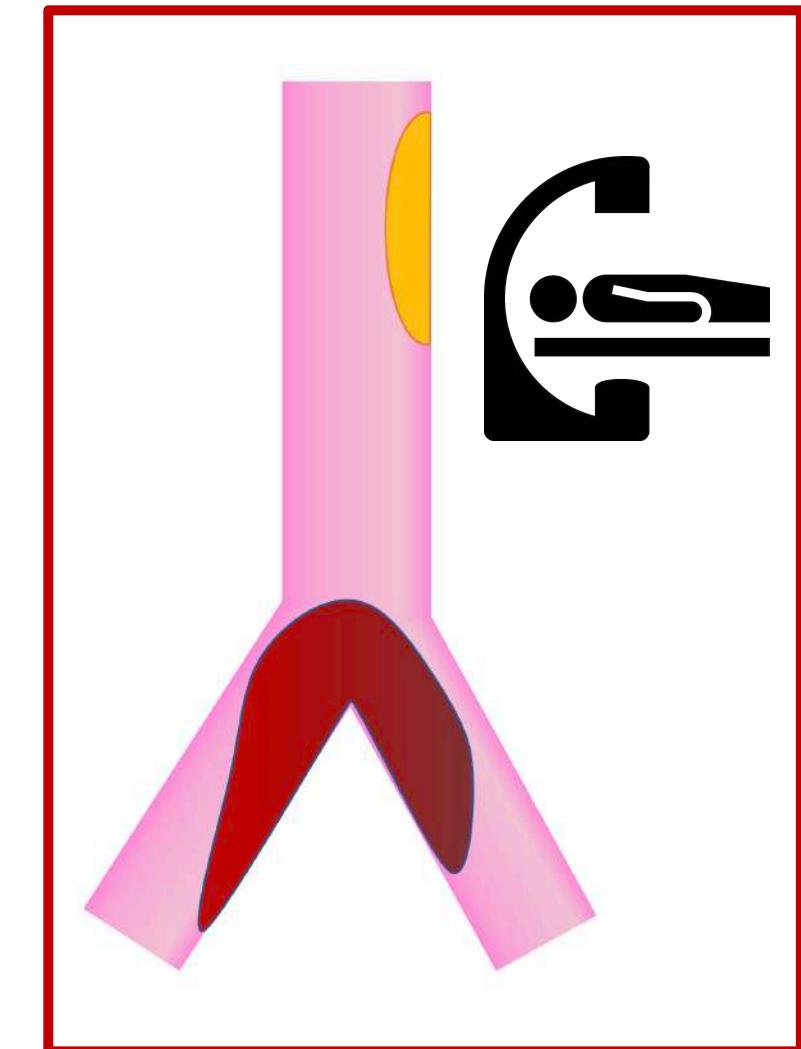
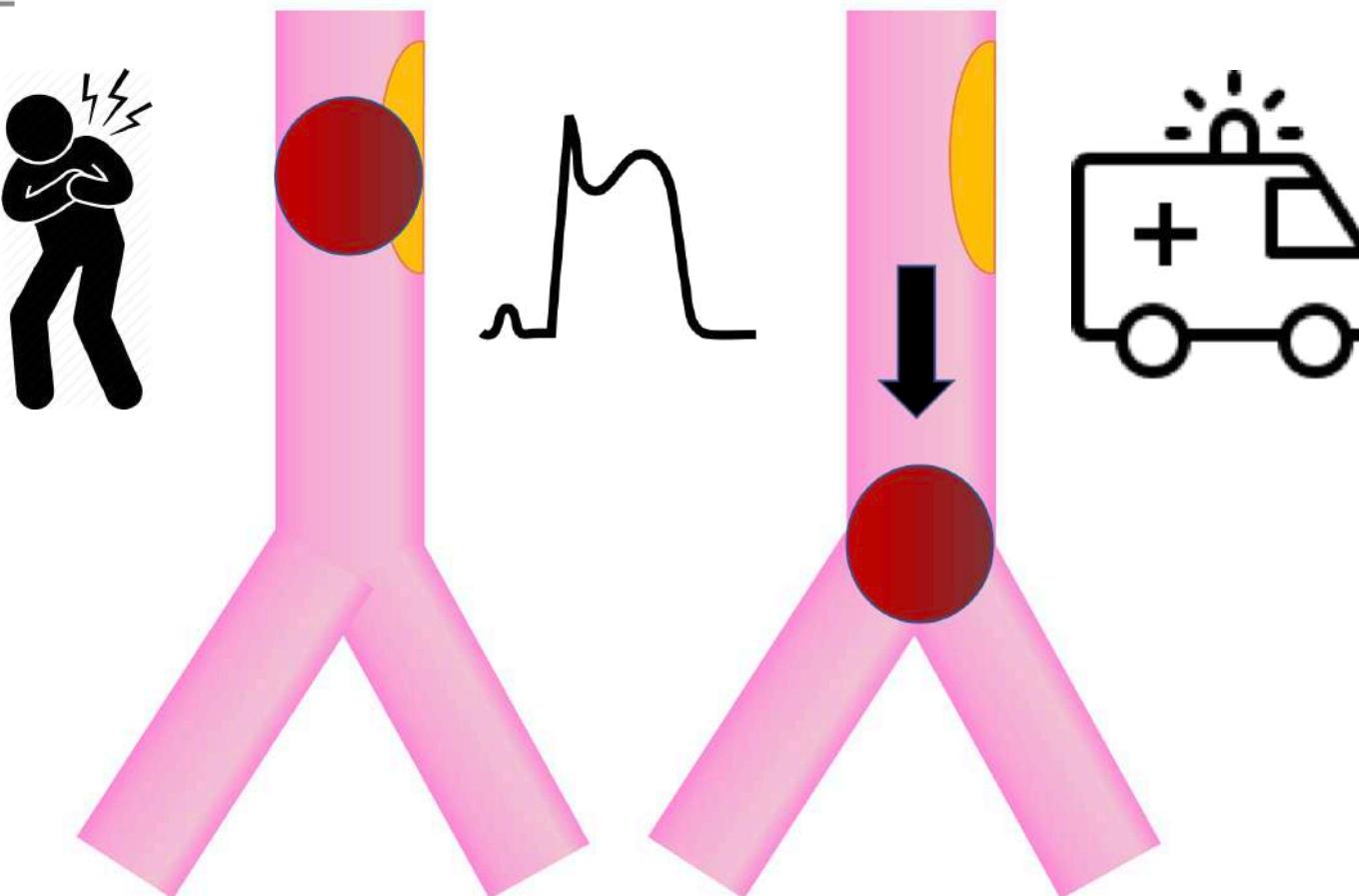
Mr I., 41 ans, SCA ST+ latéral, H4



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Cas n° 2

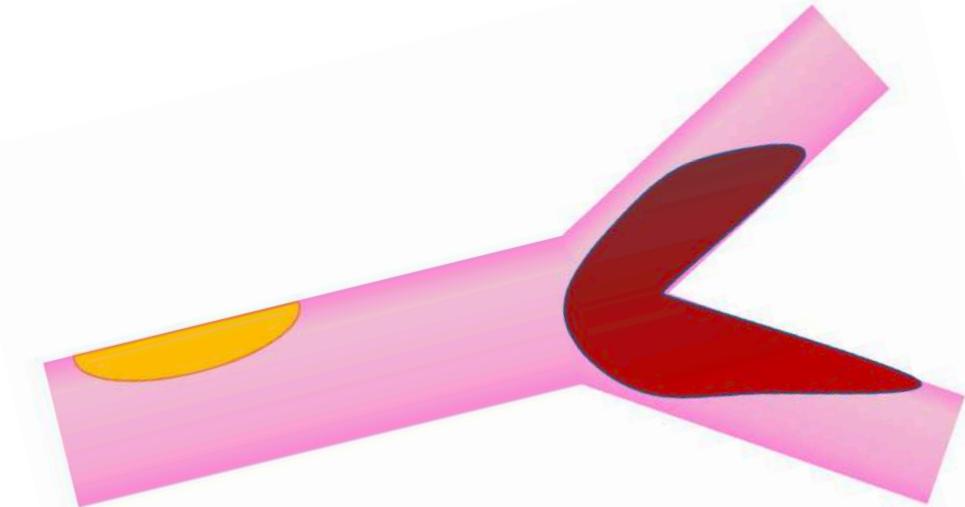
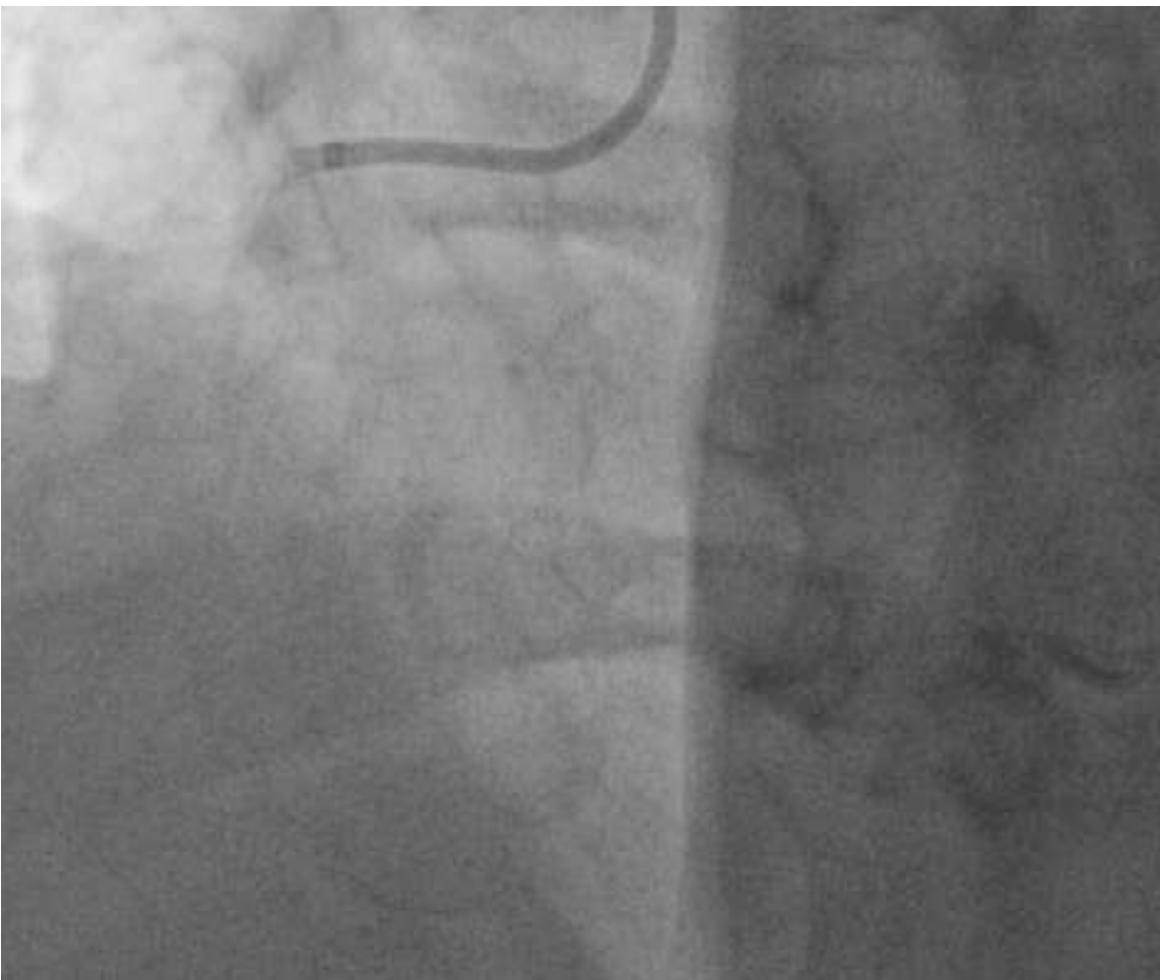
Se méfier d'un embole enclavé



SCA ST + et Bifurcation

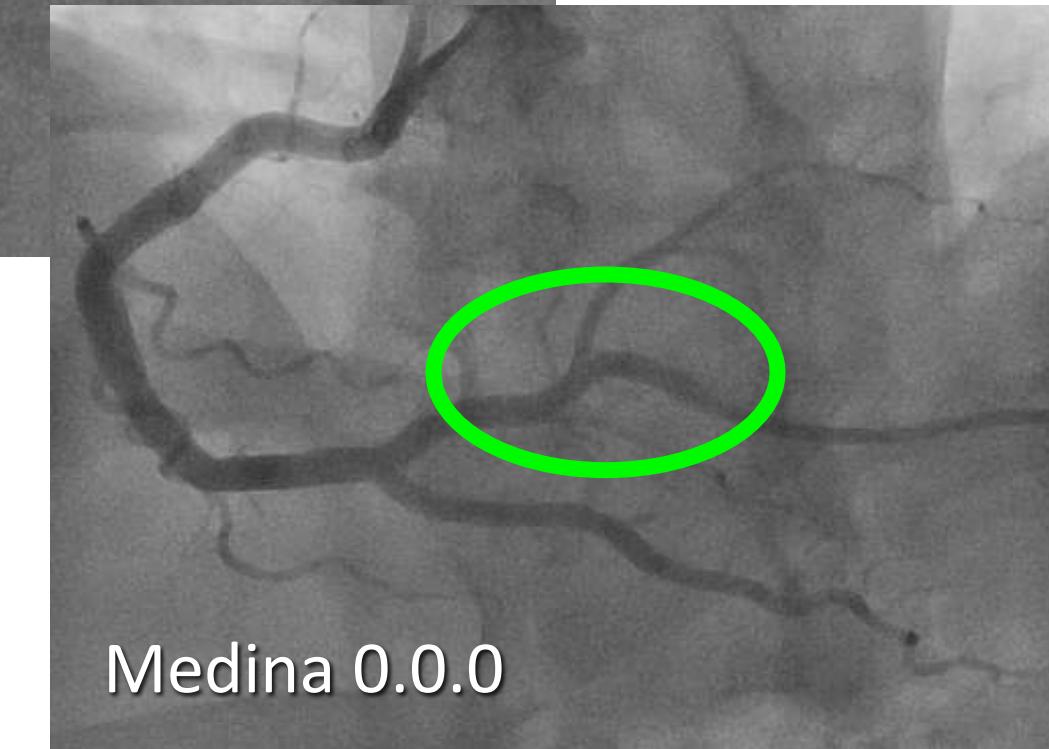
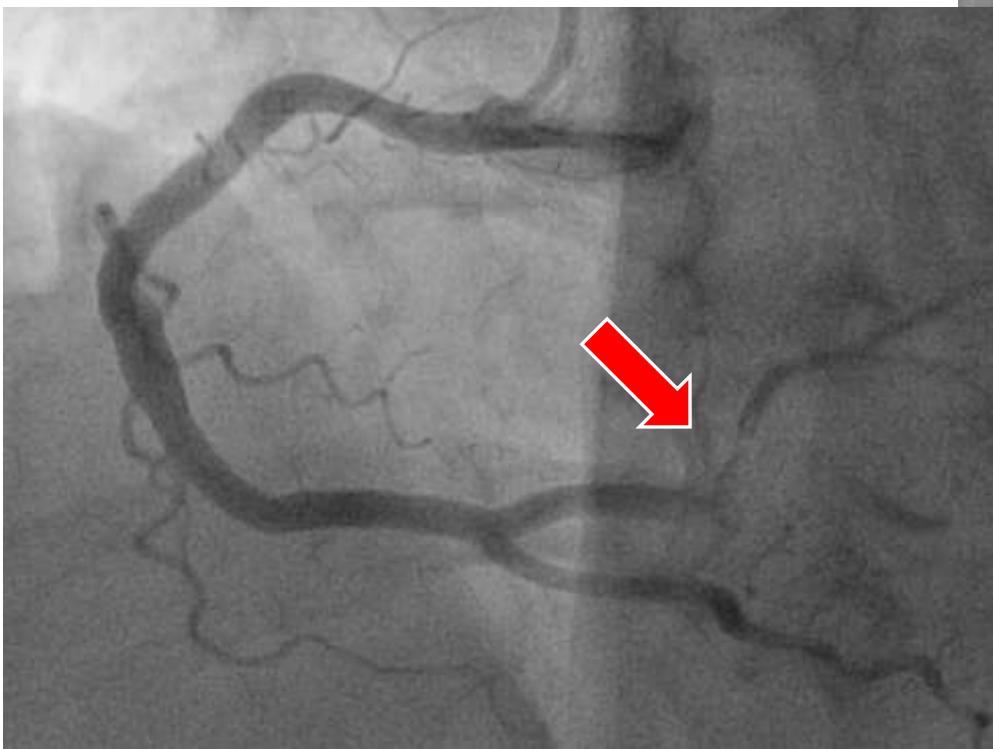
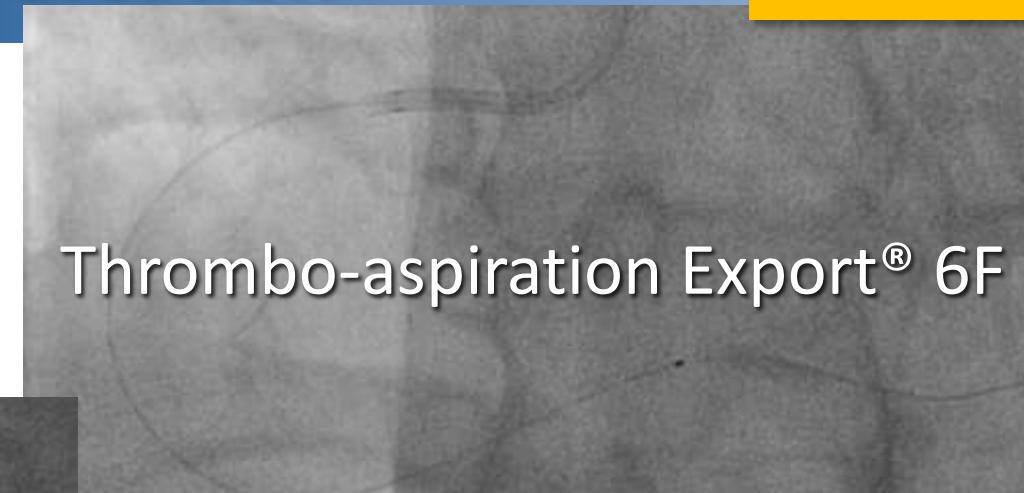
Cas n° 2

Mr G., 55 ans, SCA ST+ inférieur H2



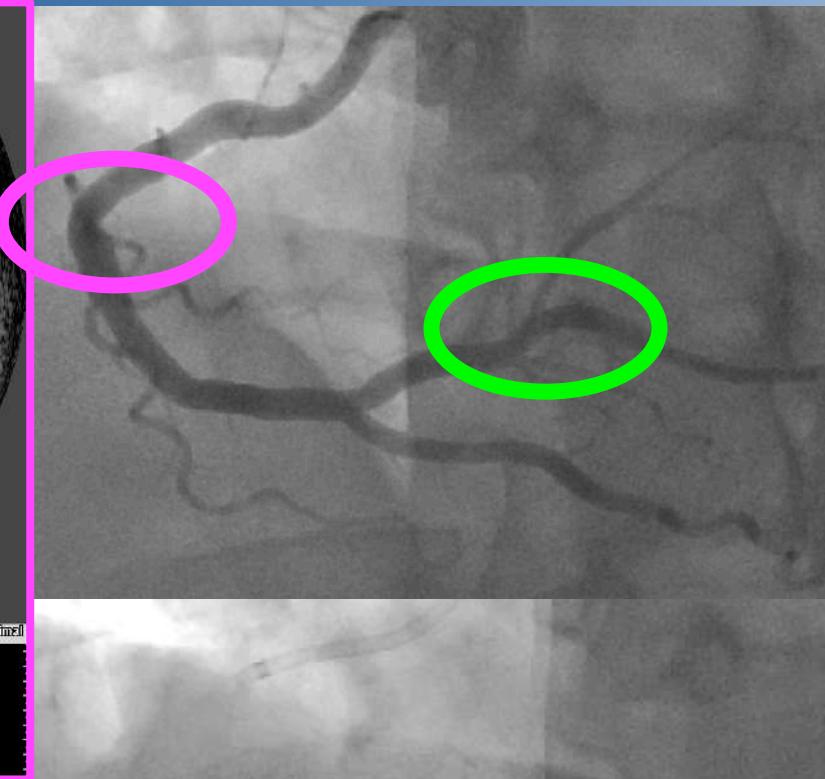
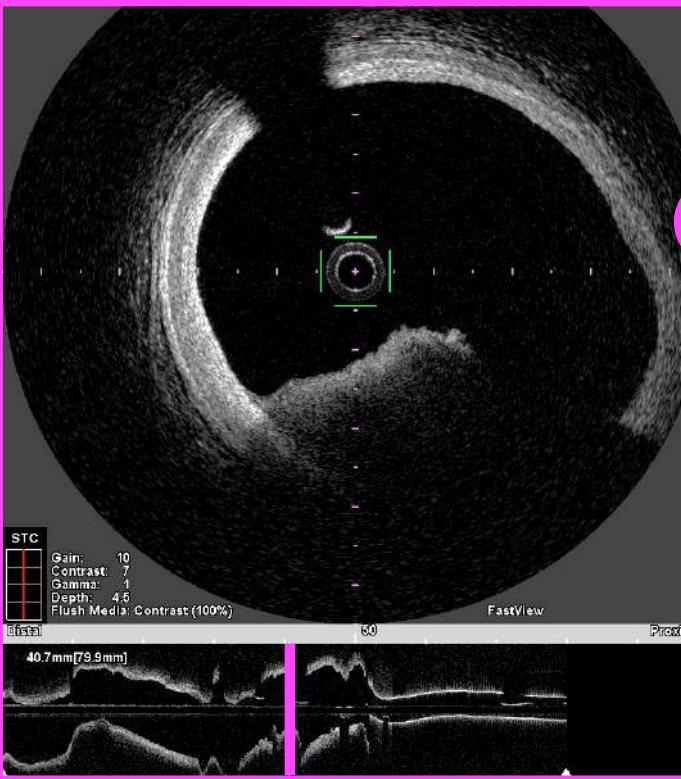
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Cas n° 2



SCA ST + et Bifurcation

Cas n° 2

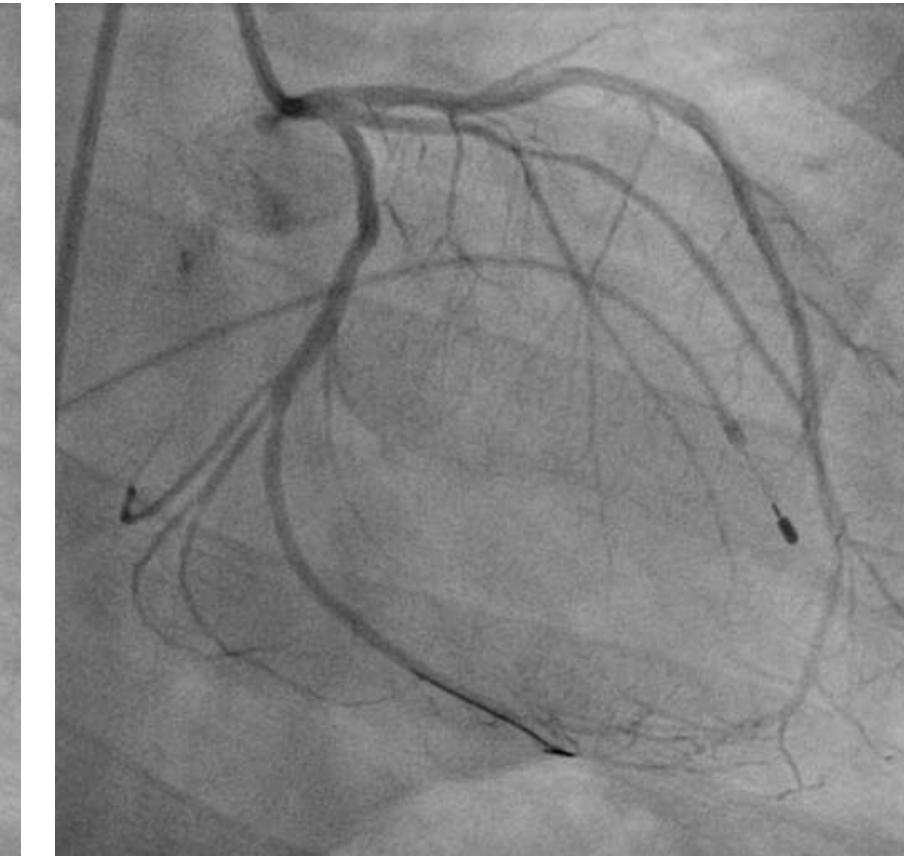
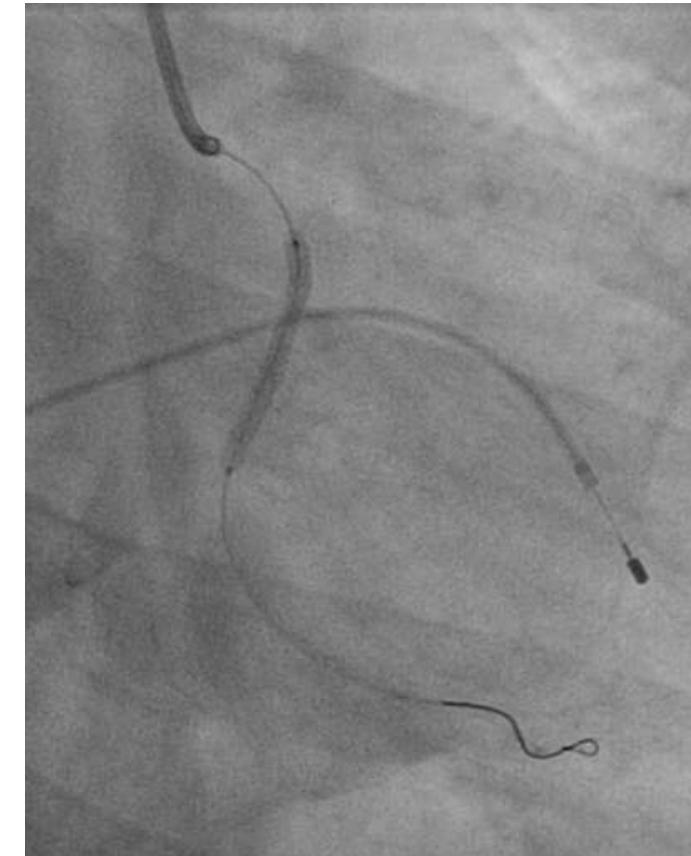
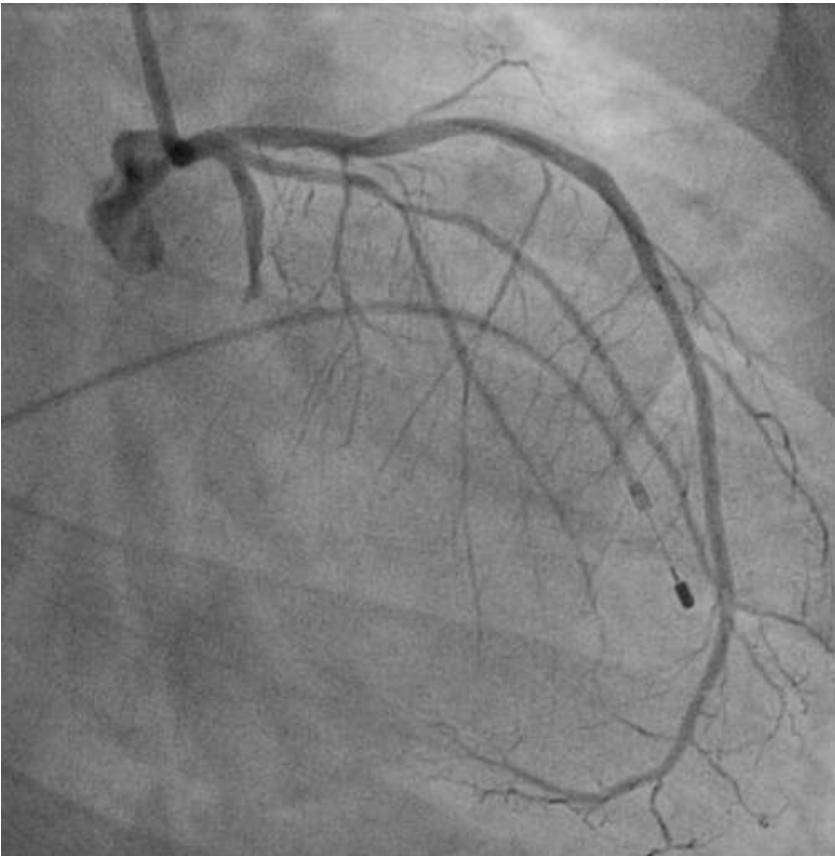


Mr G., 55 ans,
Contrôle à J4
Lésion thrombotique CD2
ttt médical optimal

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Cas n° 3

Mr D., 31 ans, fumeur, SCA ST+ compliqué d'un BAV
Stenting Cx

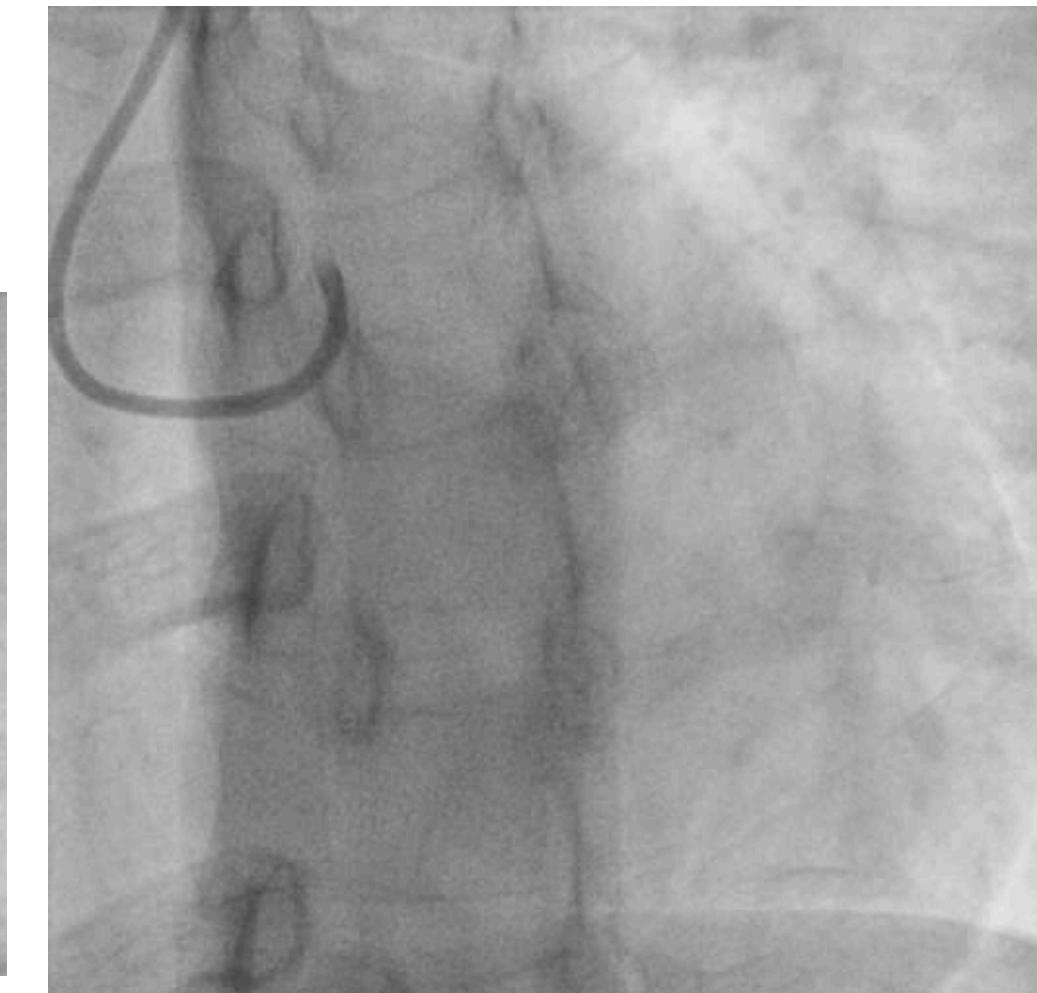
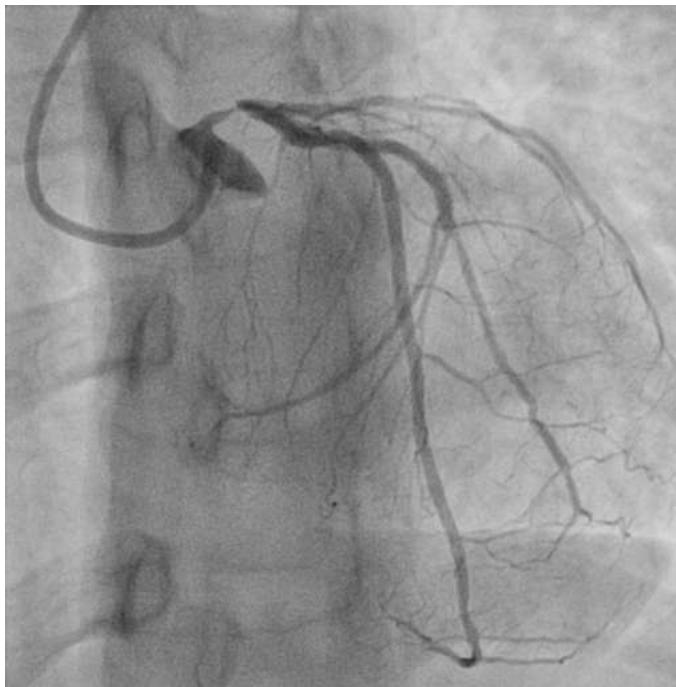


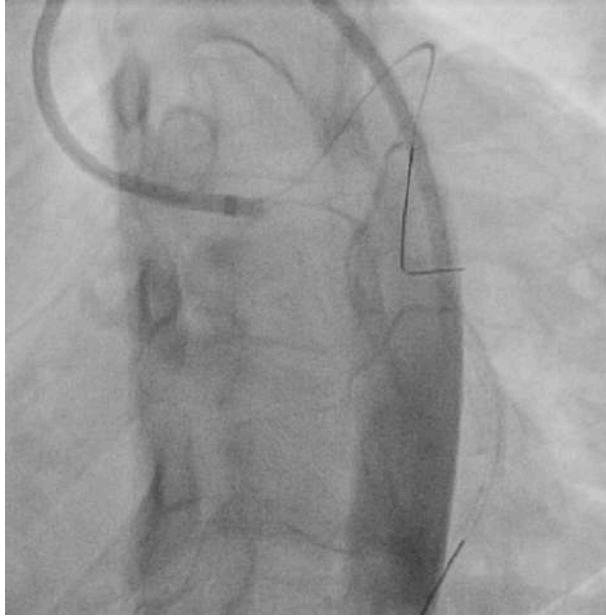
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Cas n° 3

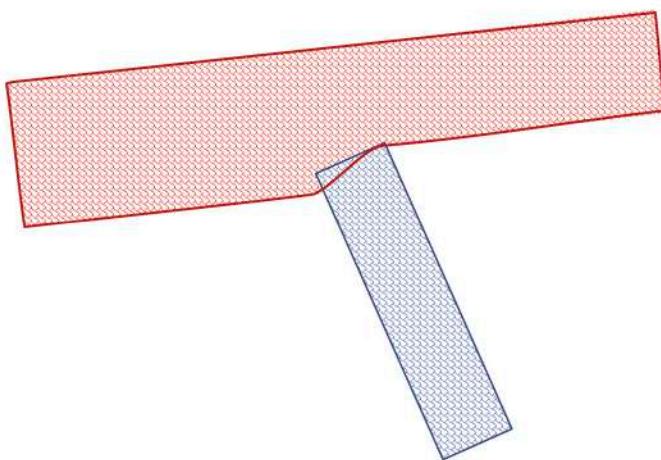
Mr D., 31 ans, récidive SCA ST+ **3 mois plus tard**

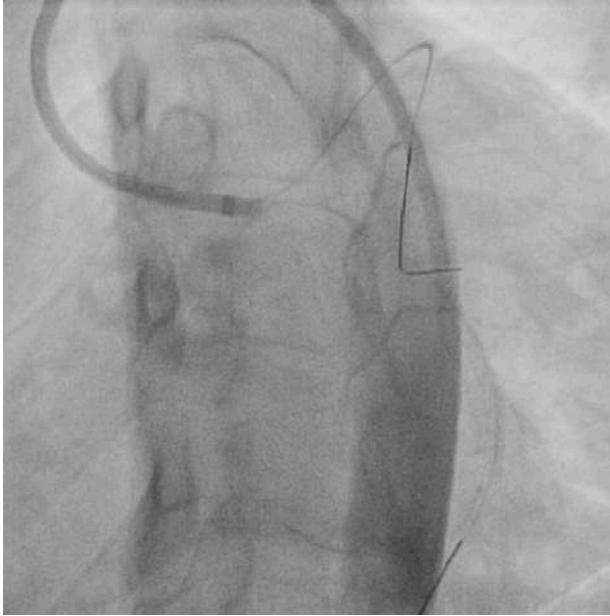
Instabilité hémodynamique



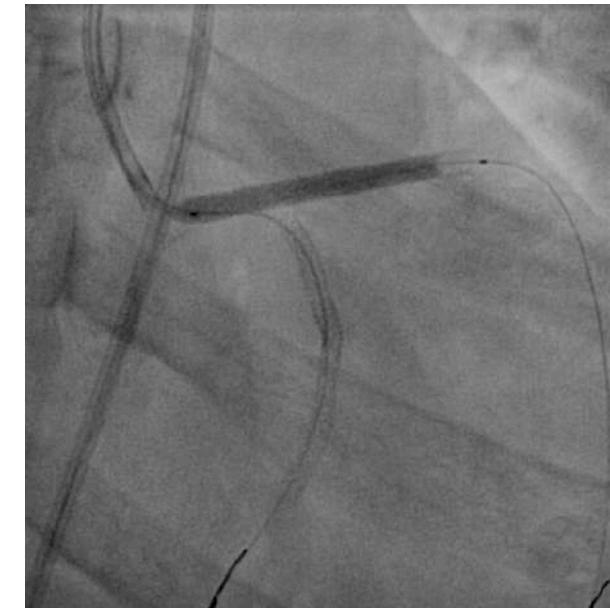
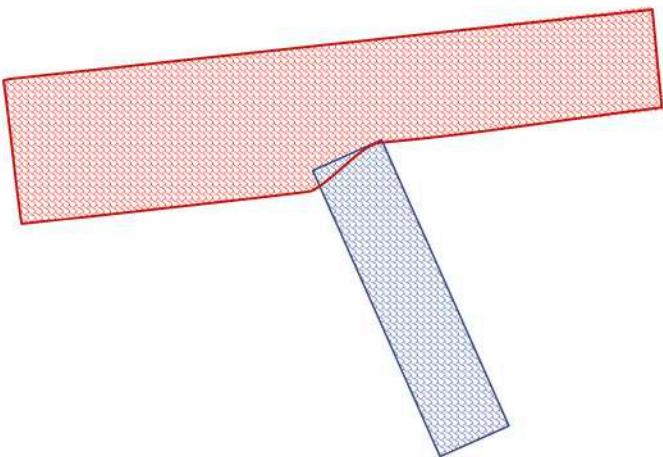


Medina 1.1.1
Occlusion Cx après prédialatation IVA
Deux stents en «T» inversé





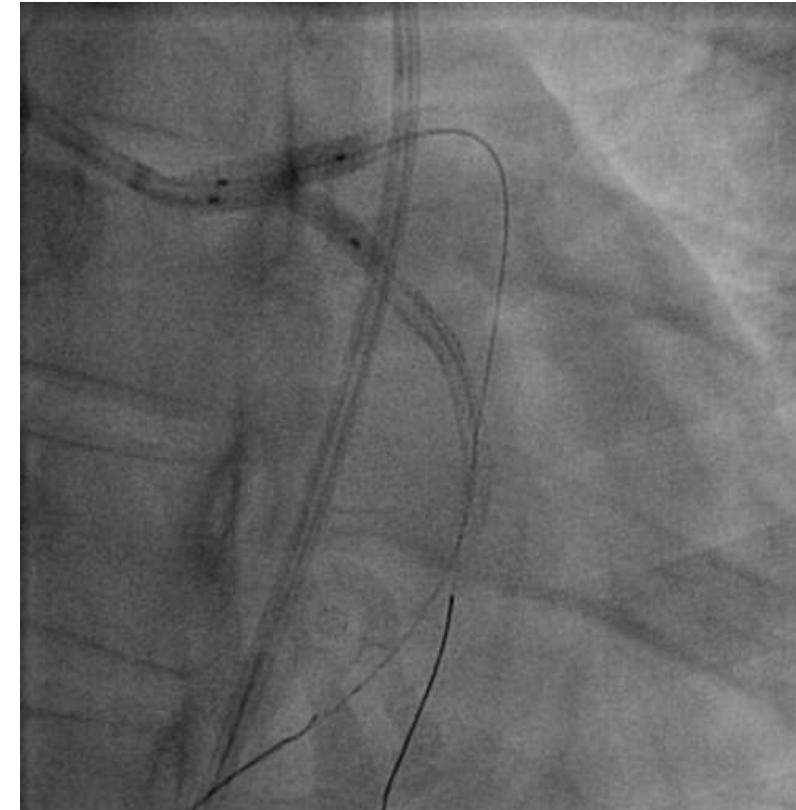
Medina 1.1.1
Occlusion Cx après prédialatation IVA
Deux stents en «T» inversé



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Cas n° 3

Kissing final



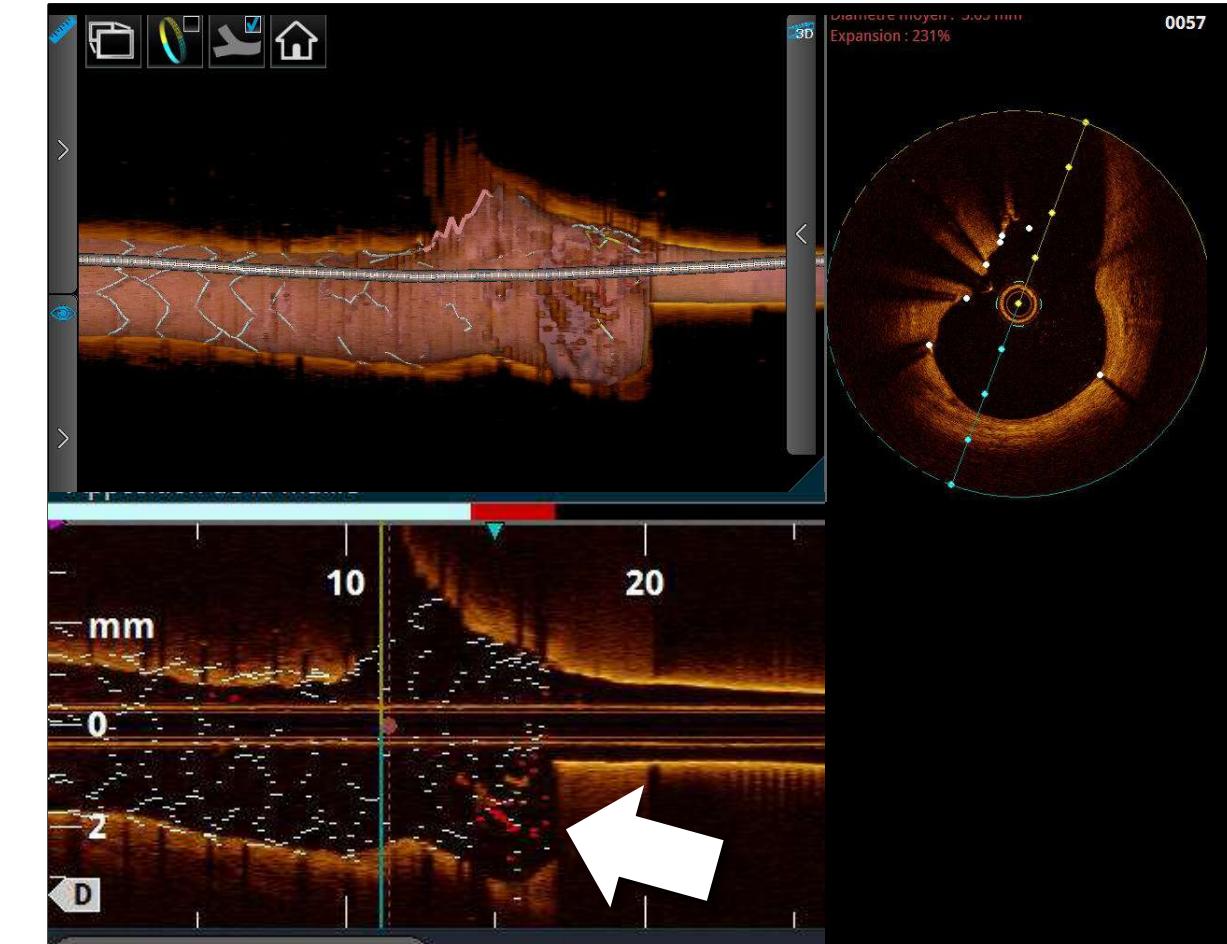
*Aspirine
Ticagrelor
antiGP IIb-IIIa*

mise en place ECLS... sevré à J2, pas de séquelle, FEVG = 60%

Contrôle systématique à J8

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Cas n° 3

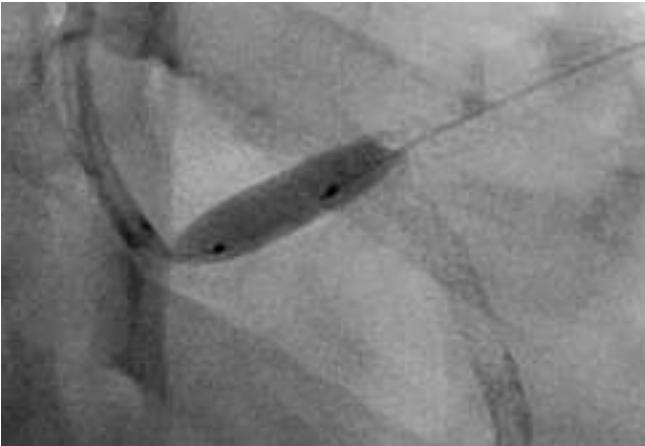


Compression longitudinale

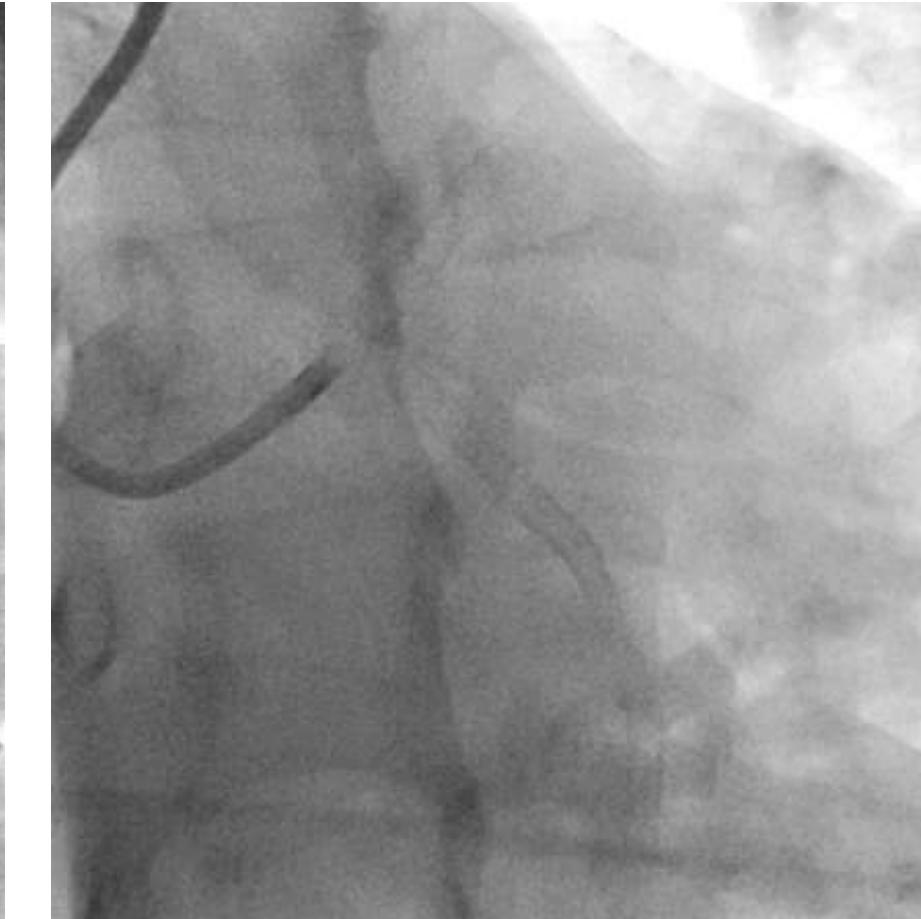
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Cas n° 3

Correction de la malapposition



POT NCB 5.0 x 12mm



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Take Home Message

- **Rétablir sans délai un flux TIMI 3 vaisseau mère**
(Sans sacrifier fille, Sans rajouter de iatrogénie)
- Bien évaluer la lésion (Medina ≠ Medina thrombotique)
- Place au cas par cas pour : stratégie en 2 temps, thrombo-aspiration
- **Recours techniques simples et maitrisées (Stent MV + POT)**



« La simplicité, c'est la sophistication suprême »

Léonard de Vinci