

Comment récupérer la fille?

Pr Faouzi Addad

Service de Cardiologie-CHU Abderrahmen Mami-Ariana

Tunisie

Introduction

- Le provisionnel T stenting est la technique de prédilection du traitement d'une lésion de bifurcation
- L'occlusion de la branche fille survient dans 7-20% avant ou après le stenting de la branche principale
- Les conséquences de l'occlusion de la branche fille vont dépendre de son importance

CLINICAL RESEARCH

Interventional Cardiology

Predictors and Outcomes of Side Branch Occlusion After Main Vessel Stenting in Coronary Bifurcation Lesions

Results From the COBIS II Registry (COronary BIfurcation Stenting)

Joo-Yong Hahn, MD, PHD,* Woo Jung Chun, MD, PHD,† Ji-Hwan Kim, MD,*
Young Bin Song, MD, PHD,* Ju Hyeon Oh, MD, PHD,† Bon-Kwon Koo, MD, PHD,‡
Seung Woon Rha, MD, PHD,§ Cheol Woong Yu, MD, PHD,|| Jong-Sun Park, MD, PHD,¶
Jin-Ok Jeong, MD, PHD,# Seung-Hyuk Choi, MD, PHD,* Jin-Ho Choi, MD, PHD,*
Myung-Ho Jeong, MD, PHD,** Jung Han Yoon, MD, PHD,†† Yangsoo Jang, MD, PHD,‡‡
Seung-Jea Tahk, MD, PHD,§§ Hyo-Soo Kim, MD, PHD,‡ Hyeon-Cheol Gwon, MD, PHD*

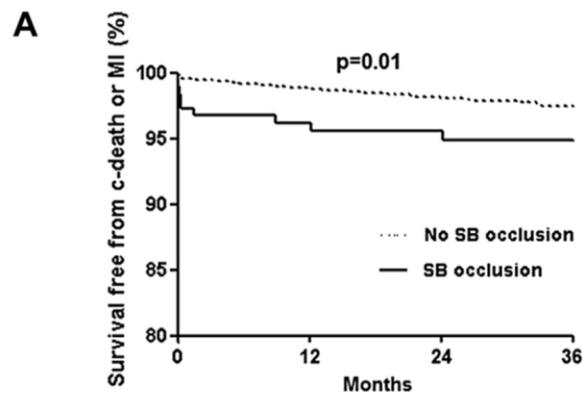
Seoul, Changwon, Bucheon, Daegu, Daejeon, Gwangju, Wonju, and Suwon, Republic of Korea

Table 5 Clinical Outcomes at 12-Month Follow-Up

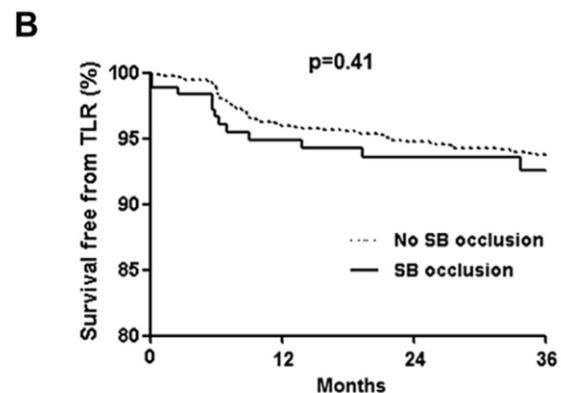
Outcome	SB Occlusion (n = 187)	No SB Occlusion (n = 2,040)	Unadjusted HR (95% CI)	p Value	Adjusted HR* (95% CI)	p Value
Death	10 (5.3)	74 (3.6)	1.55 (0.80–2.99)	0.20	1.50 (0.76–2.97)	0.24
Cardiac death	7 (3.7)	20 (1.0)	3.95 (1.67–9.35)	0.002	4.19 (1.66–10.59)	0.002
MI	4 (2.1)	32 (1.6)	1.44 (0.59–4.07)	0.49	1.50 (0.51–4.41)	0.46
Cardiac death or MI	10 (5.3)	50 (2.5)	2.29 (1.16–4.52)	0.02	2.34 (1.15–4.77)	0.02
Stent thrombosis†	6 (3.2)	9 (0.4)	7.68 (2.73–21.59)	<0.001	6.19 (2.00–19.13)	0.002
TLR	14 (7.5)	129 (6.3)	1.26 (0.73–2.19)	0.41	1.31 (0.74–2.30)	0.36
MACE	23 (12.3)	164 (8.0)	1.63 (1.06–2.53)	0.03	1.64 (1.05–2.58)	0.03

Values are n (%). *Adjusted covariates included diabetes, acute coronary syndromes, true bifurcation, left main lesion, use of intravascular ultrasound, SB pre-dilation, MV stent diameter, and MV stent maximal pressure. †Definite or probable stent thrombosis.

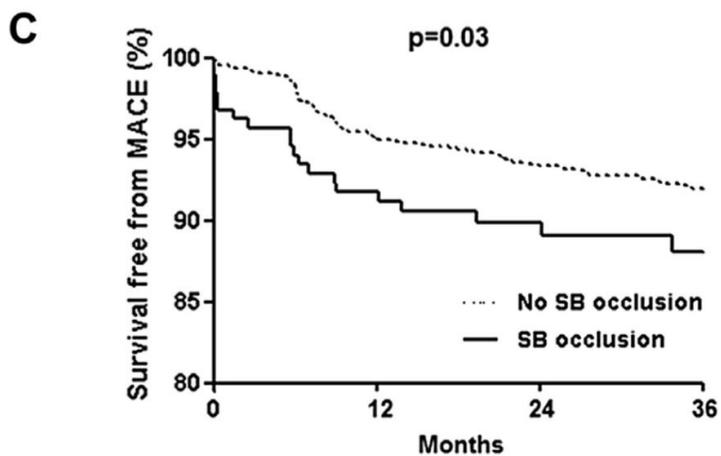
CI = confidence interval; HR = hazard ratio; MACE = major adverse cardiac events; MI = myocardial infarction; TLR = target lesion revascularization.



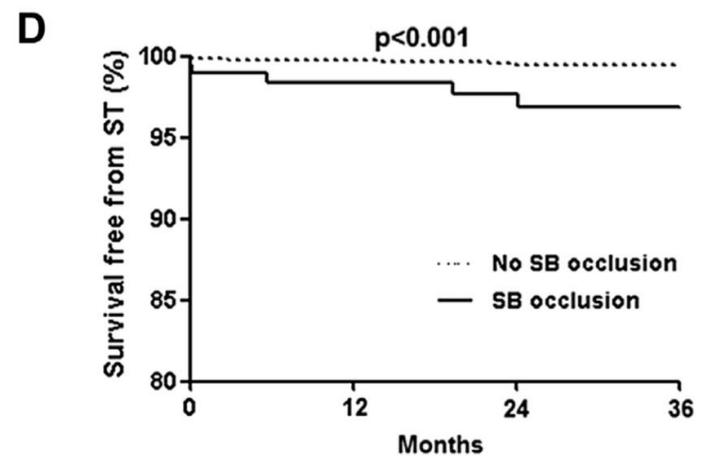
SB occlusion	187	163	128	83
No SB occlusion	2040	1851	1542	991



SB occlusion	187	156	121	80
No SB occlusion	2040	1790	1478	950



SB occlusion	187	155	121	79
No SB occlusion	2040	1783	1468	940



SB occlusion	187	162	126	83
No SB occlusion	2040	1860	1554	1003

Facteurs prédictifs d'une occlusion de la branche fille ?

- L'identification de ces facteurs permettent de diminuer l'incidence de l'occlusion de la branche fille

3 facteurs communément reconnues:

- Une bifurcation vraie
- La présence d'une lésion ostiale de la branche fille
- La longueur de la lésion de la branche fille

An Angiographic Tool for Risk Prediction of Side Branch Occlusion in Coronary Bifurcation Intervention



The RESOLVE Score System (Risk prEdiction of Side branch OccLusion in coronary bifurcation interVENTion)

Kefei Dou, MD,* Dong Zhang, MD,* Bo Xu, MBBS,* Yuejin Yang, MD,* Dong Yin, MD,* Shubin Qiao, MD,* Yongjian Wu, MD,* Hongbing Yan, MD,* Shijie You, MD,* Yang Wang, MSc,* Zhenqiang Wu, MSc,* Runlin Gao, MD,* Ajay J. Kirtane, I

TABLE 4 Scores Attributed to Each Variable

Risk Factor	Level	Point
Plaque distribution	At the opposite side of SB	0
	At the same side of SB	1
MV TIMI flow grade before stenting	TIMI 3	0
	TIMI 2	6
	TIMI 1	11
	TIMI 0	17
Pre-procedural diameter stenosis of bifurcation core (%)	<50	0
	50-<70	2
	≥70	3
Bifurcation angle (°)	<70	0
	70-<90	4
	≥90	6
Diameter ratio between MV/SB	<1.0	0
	1.0-<1.5	2
	1.5-<2.0	6
	≥2.0	9
Diameter stenosis of SB before MV stenting (%)	<50	0
	50-<70	4
	70-<90	6
	≥90	7

TABLE 5 Frequency Distribution of SB Occlusion Across Different Risk Groups

	Low-Risk Group (Quartile I)	Intermediate-Risk Group (Quartile II + III)	High-Risk Group (Quartile IV)	p Value
Range	0-2	3-9	≥10	
SB occlusion rate in training dataset (n = 1,200)	1/98 (1.0)	29/770 (3.8)	58/332 (17.5)	<0.001
SB occlusion rate in validation dataset (n = 401)	0/47 (0)	9/239 (3.8)	21/85 (19.8)	<0.001

Avant stenting de la branche principale

Placer systématiquement un guide avant procédure dans la branche fille

Stenting de la branche fille en première intention.

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Taille de l'image : 512 x 512
NF : 128 LF : 256

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Unnamed
cardio N

Zoom : 120%
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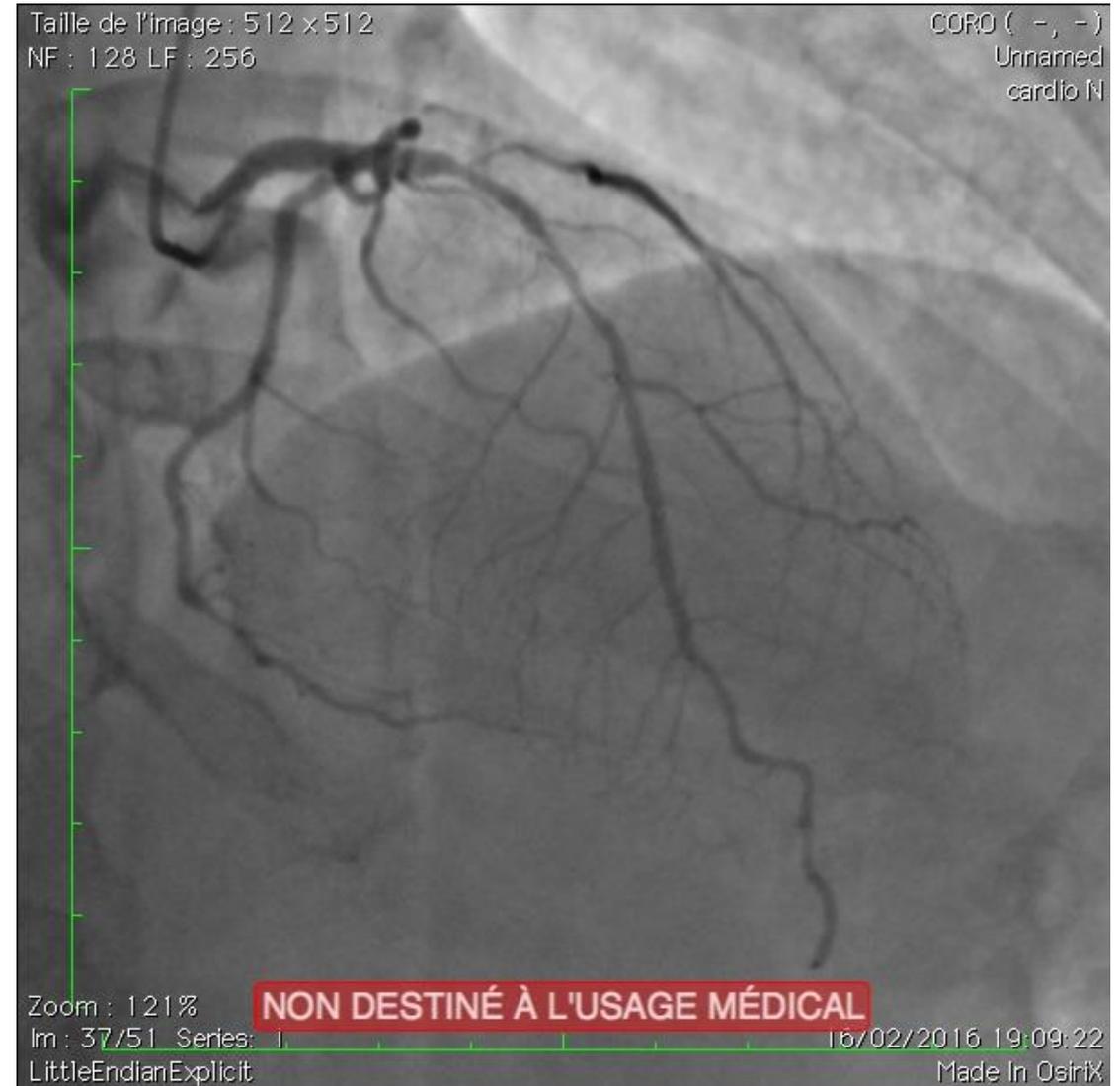
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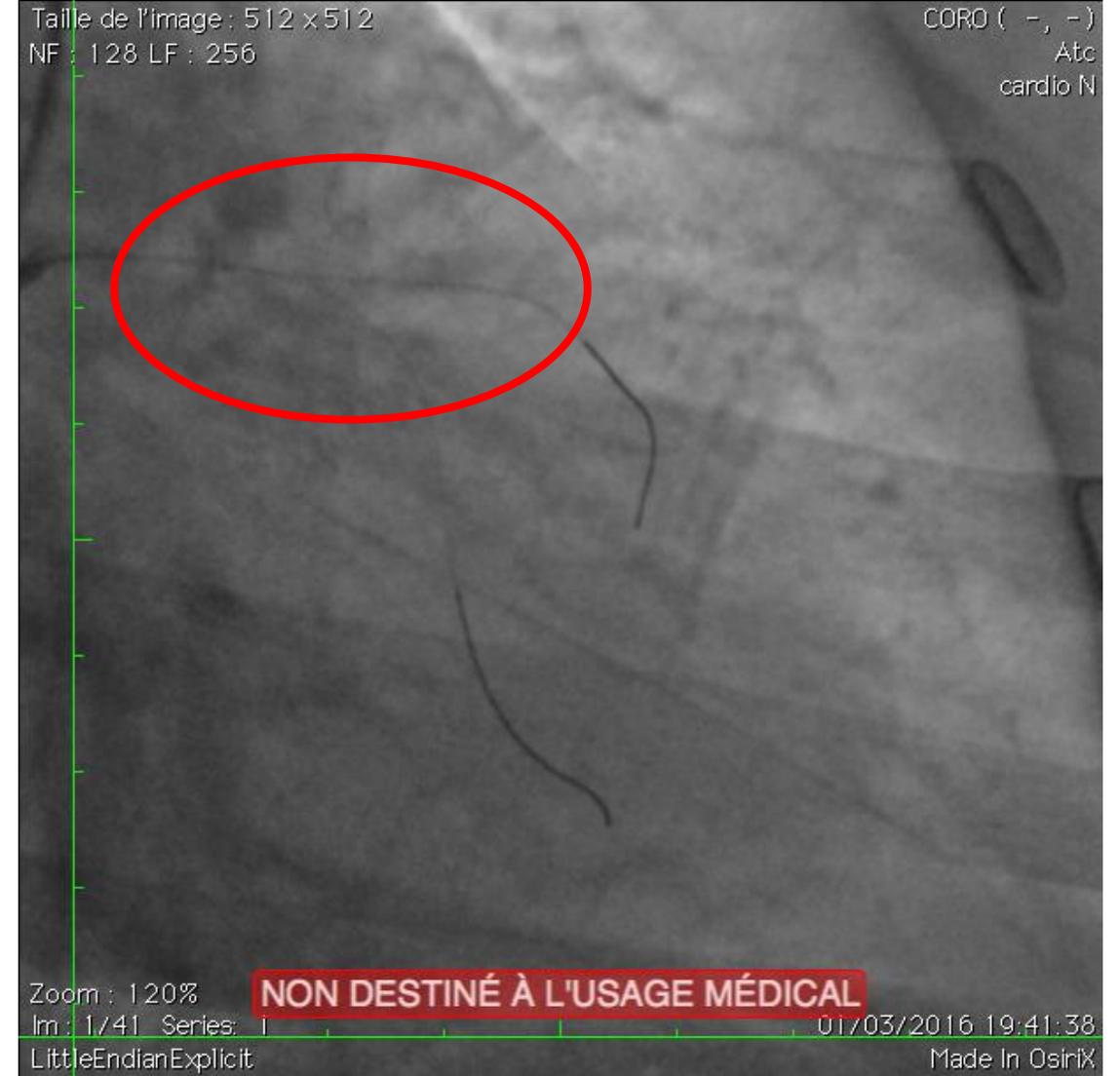
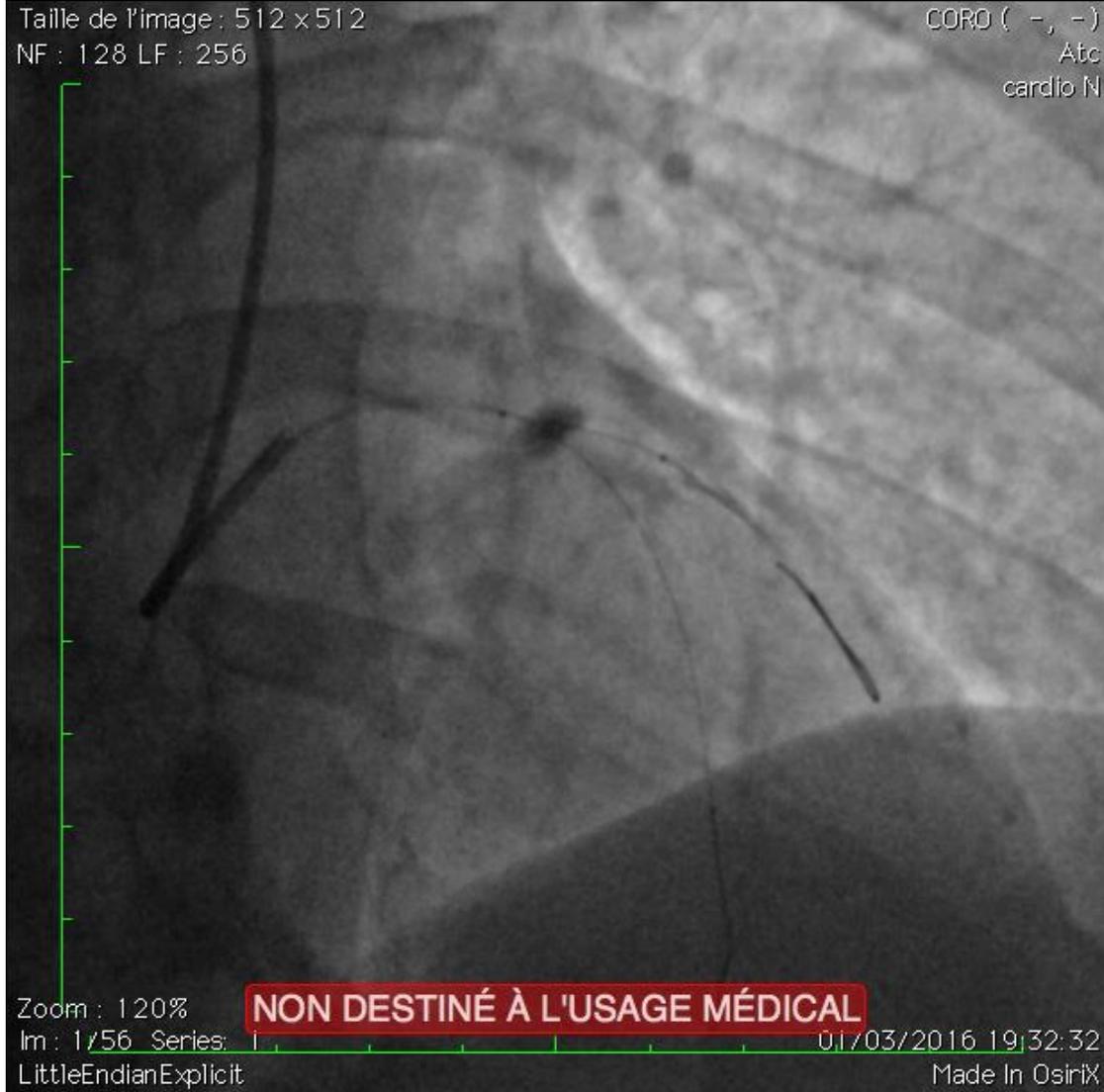
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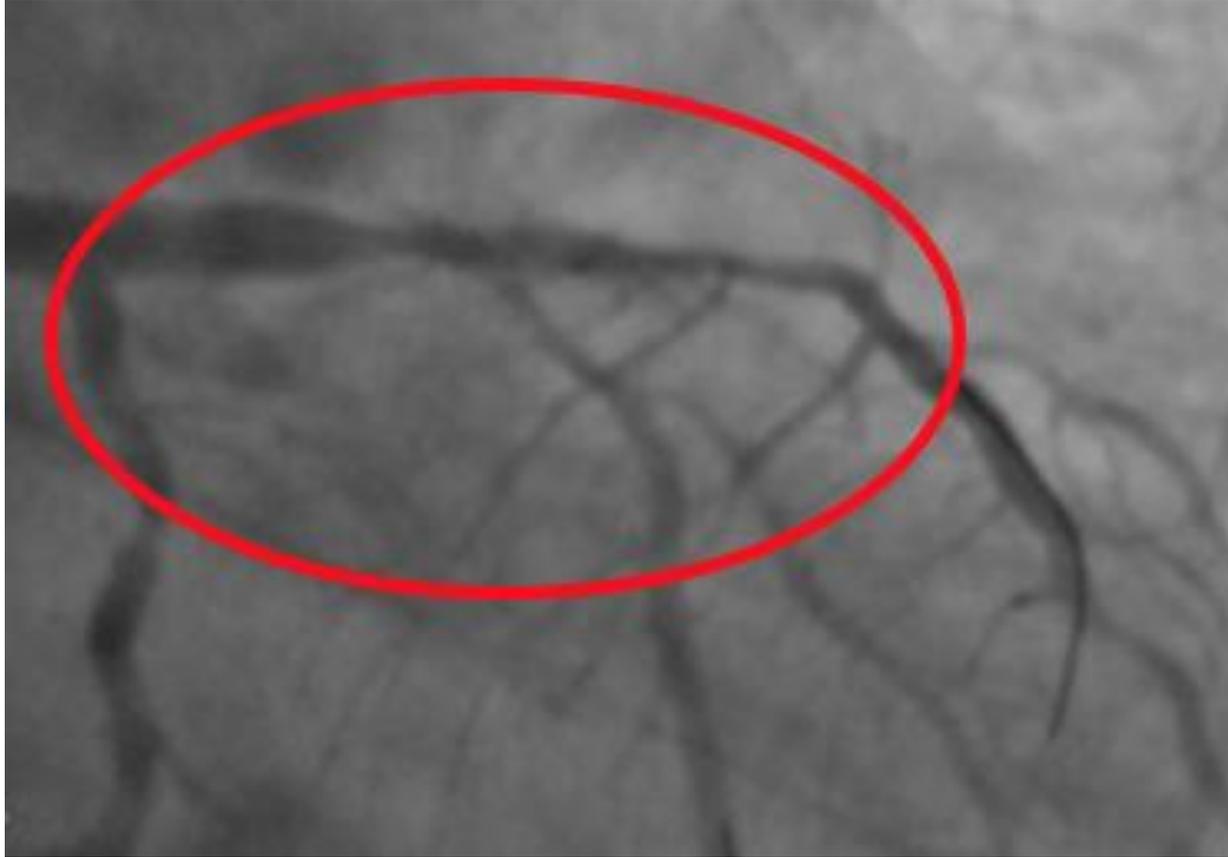
Angioplastie coronaire

- **Quelle stratégie pour la lésion de bifurcation?**
- Lésion de type Medina 1,1,1
- Angle de bifurcation 70°

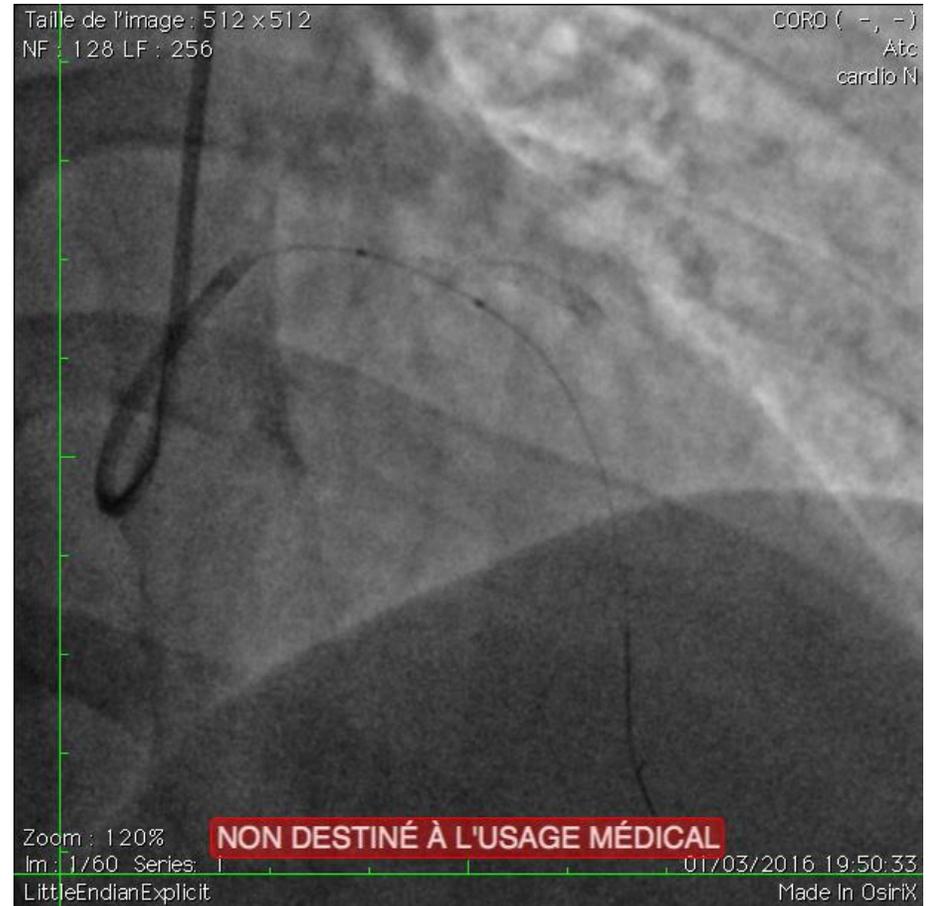
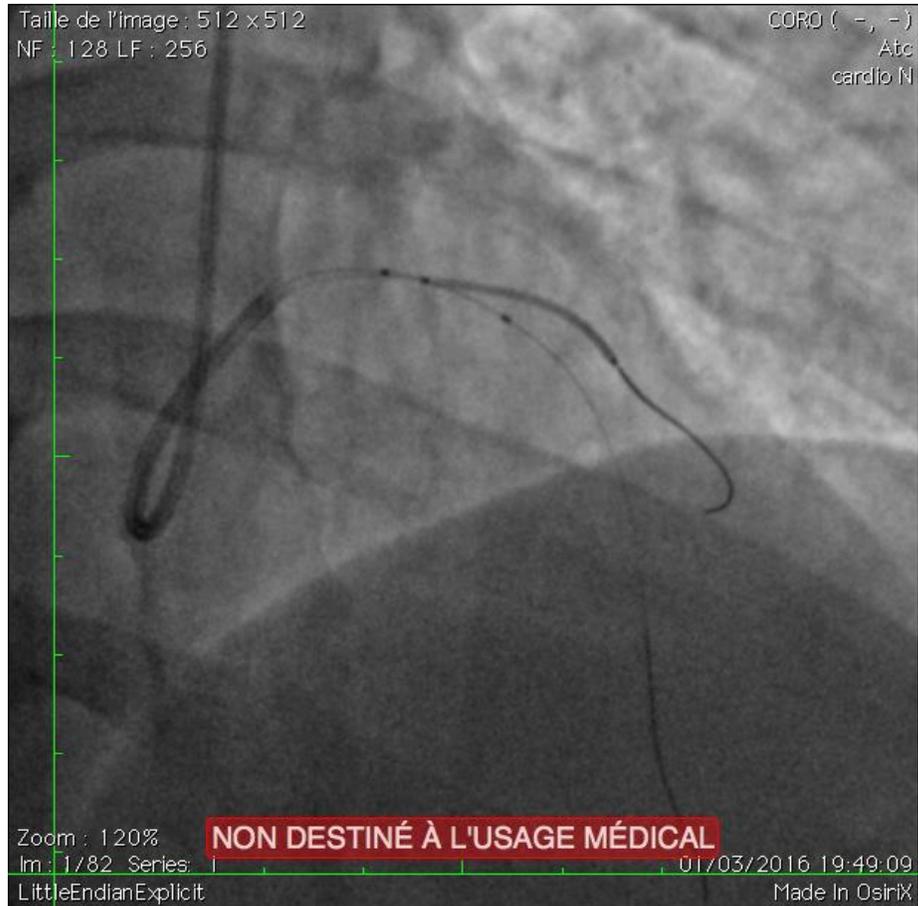
- **Quelle technique?**
 - 1 stent ou 2 stent?
 - TAP ou DK-crush?
 - Prédilatation de la SB?

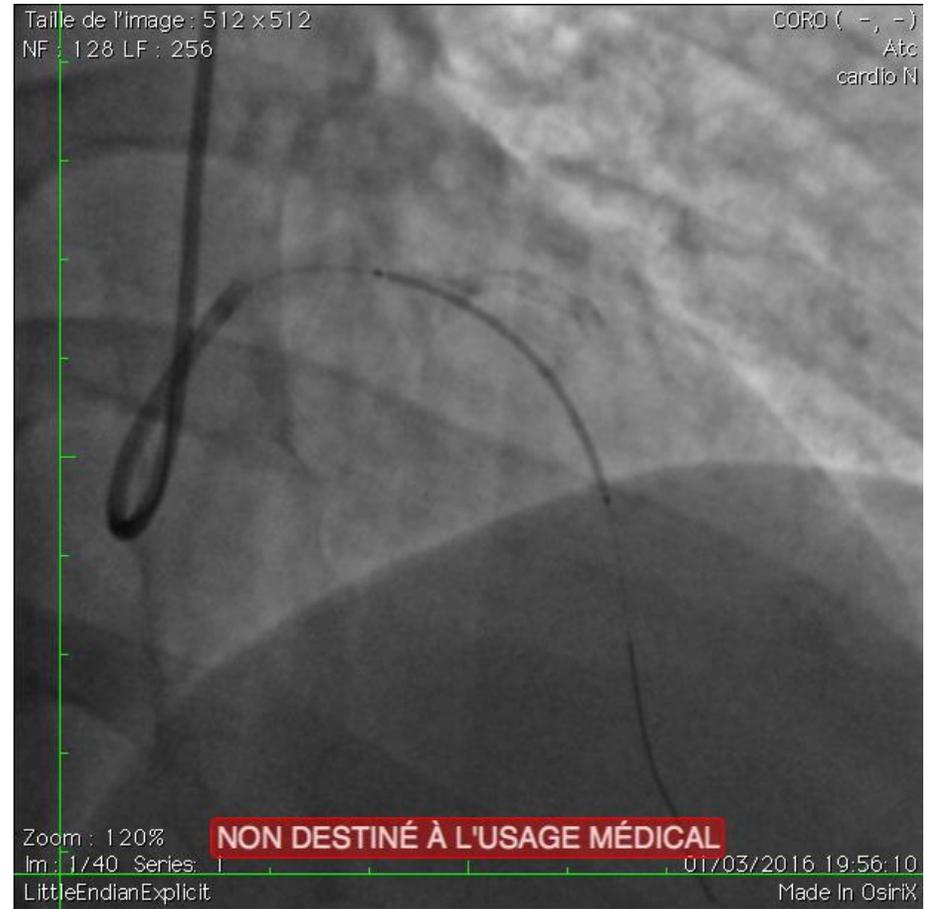
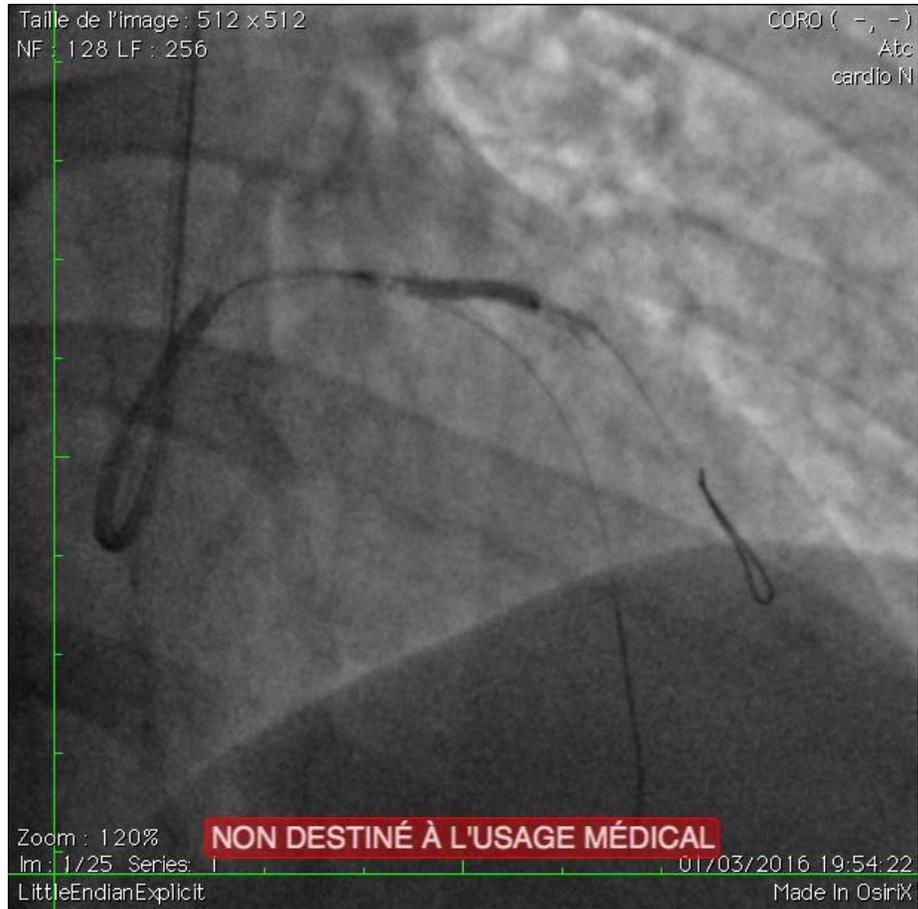


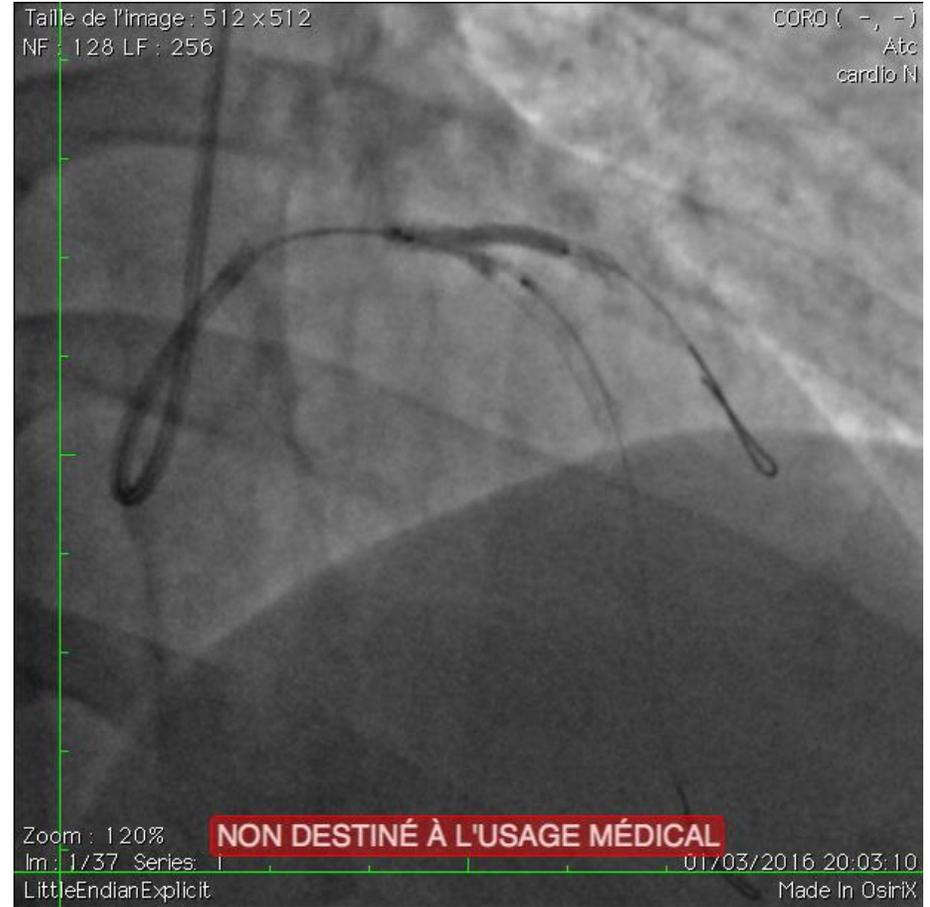
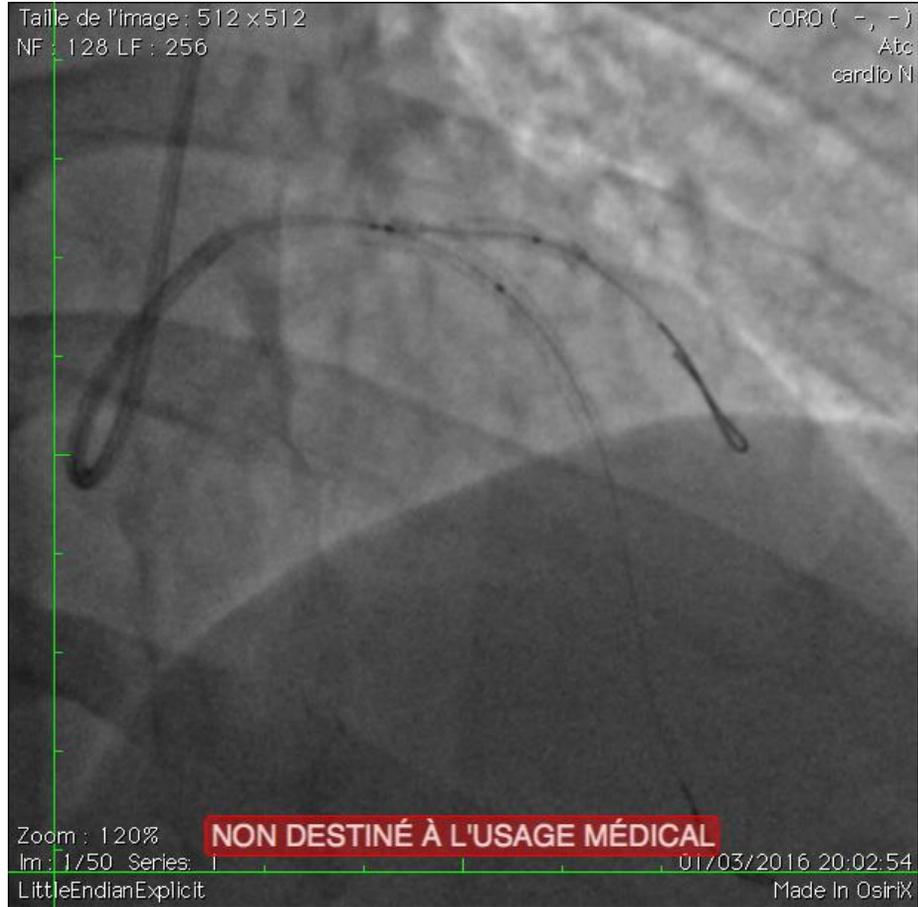




- Aspect de dissection de la 1^{ère} diagonale
- Risque d'occlusion de la SB en cas de stenting de la MB
- DK-crush devient la stratégie de 1^{ère} intention à ce stade





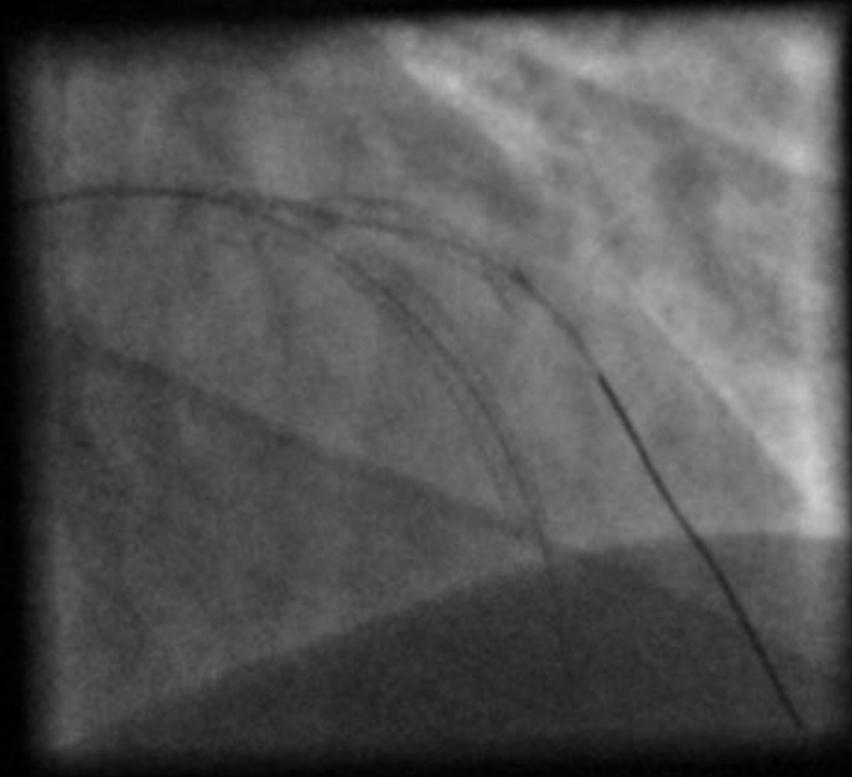


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Taille de l'image : 512 x 512

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Zoom : 120%

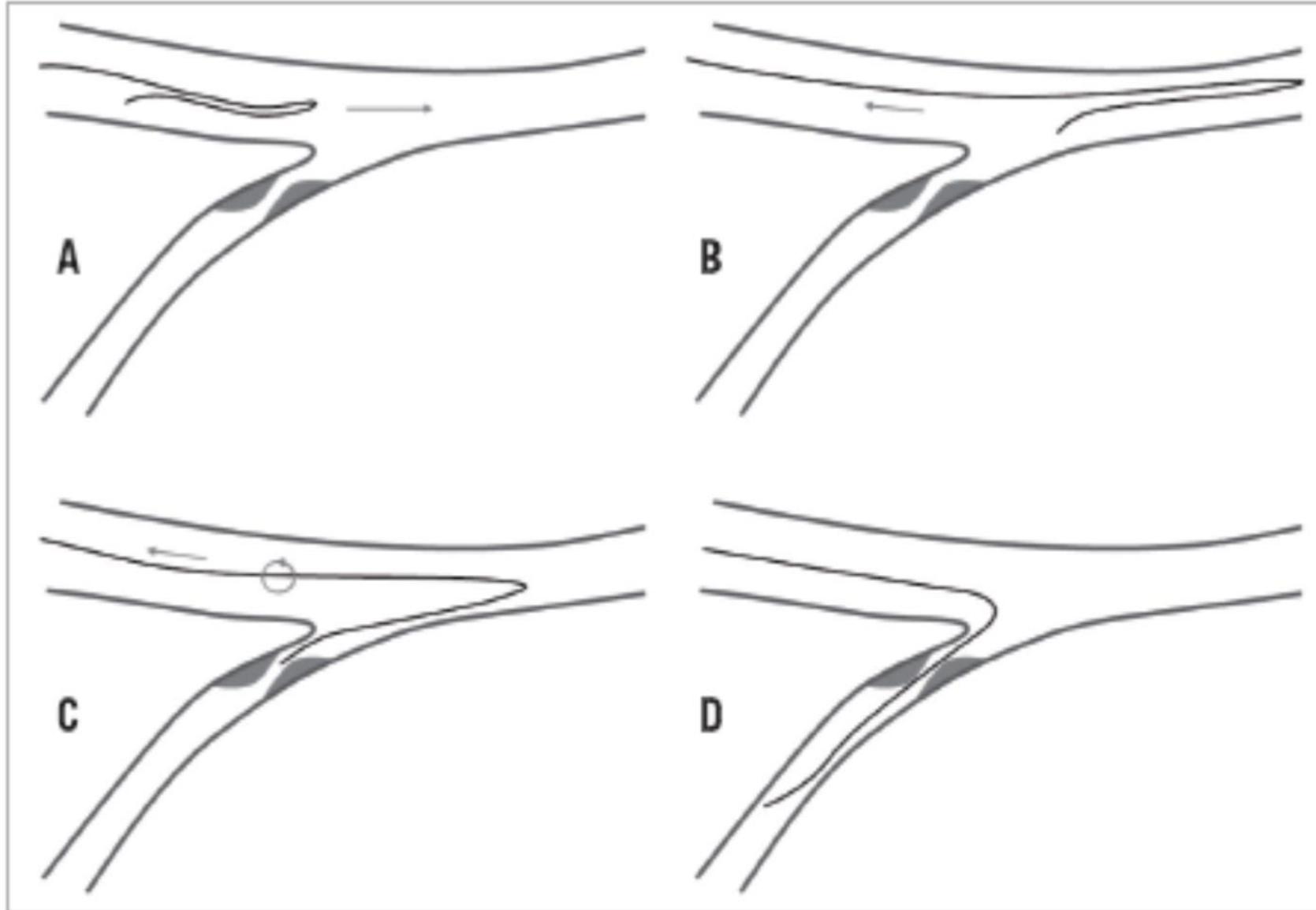
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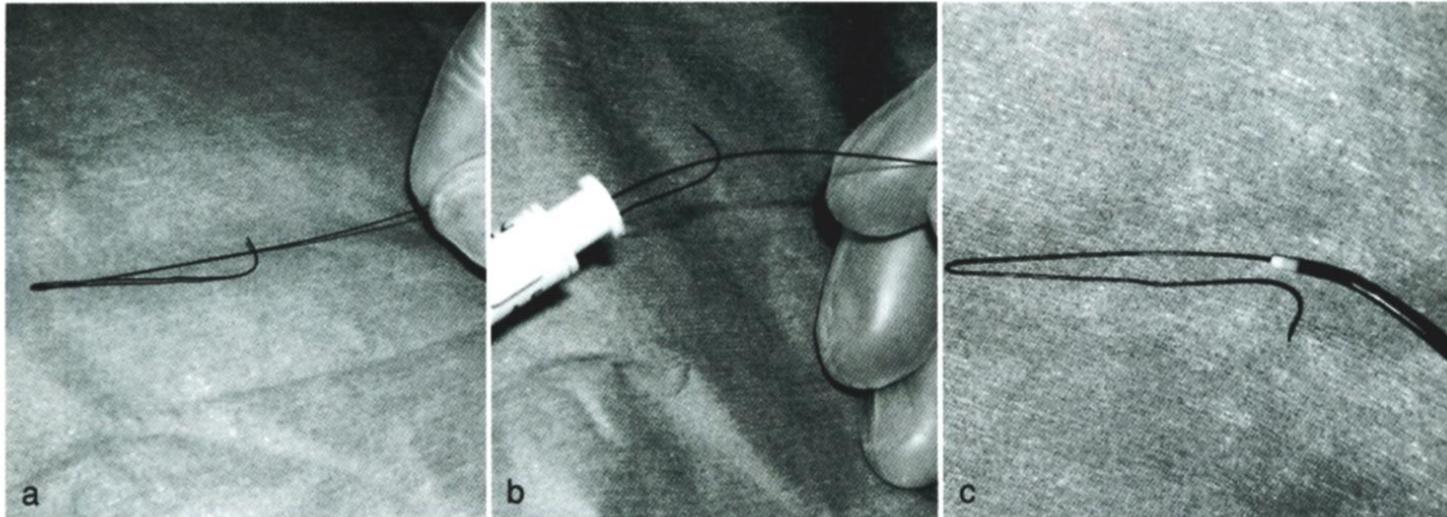
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REVERSE WIRING TECHNIQUE



Reversed wire technique

- Originally proposed by Dr. Kawasaki T (Shin Koga Hosp)
Catheterization and Cardiovascular Intervention, 2008



The GW is folded at the site of 2-5cm proximal from the tip.

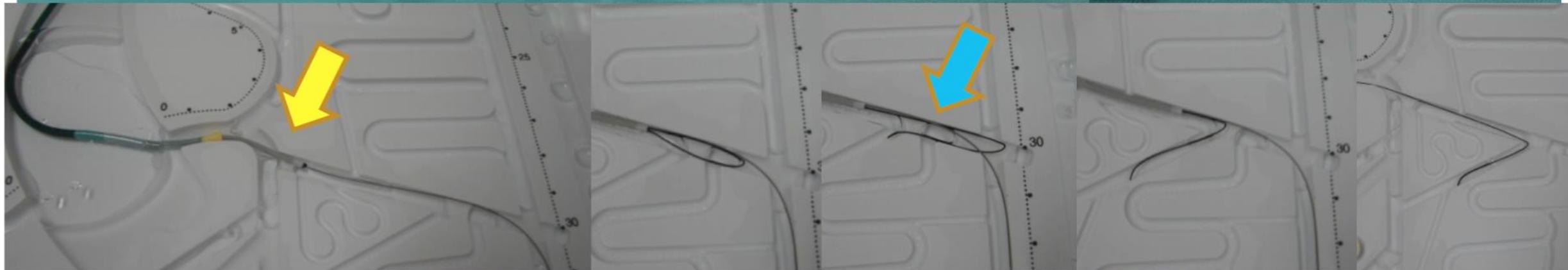
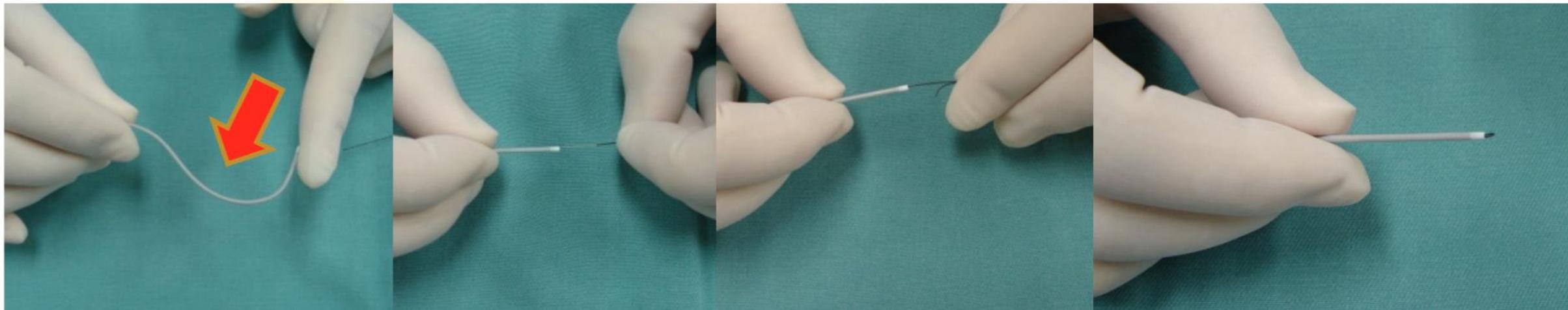
The folded GW is inserted directly into the guiding catheter.

The GW advances into the coronary artery while maintaining its folded position.



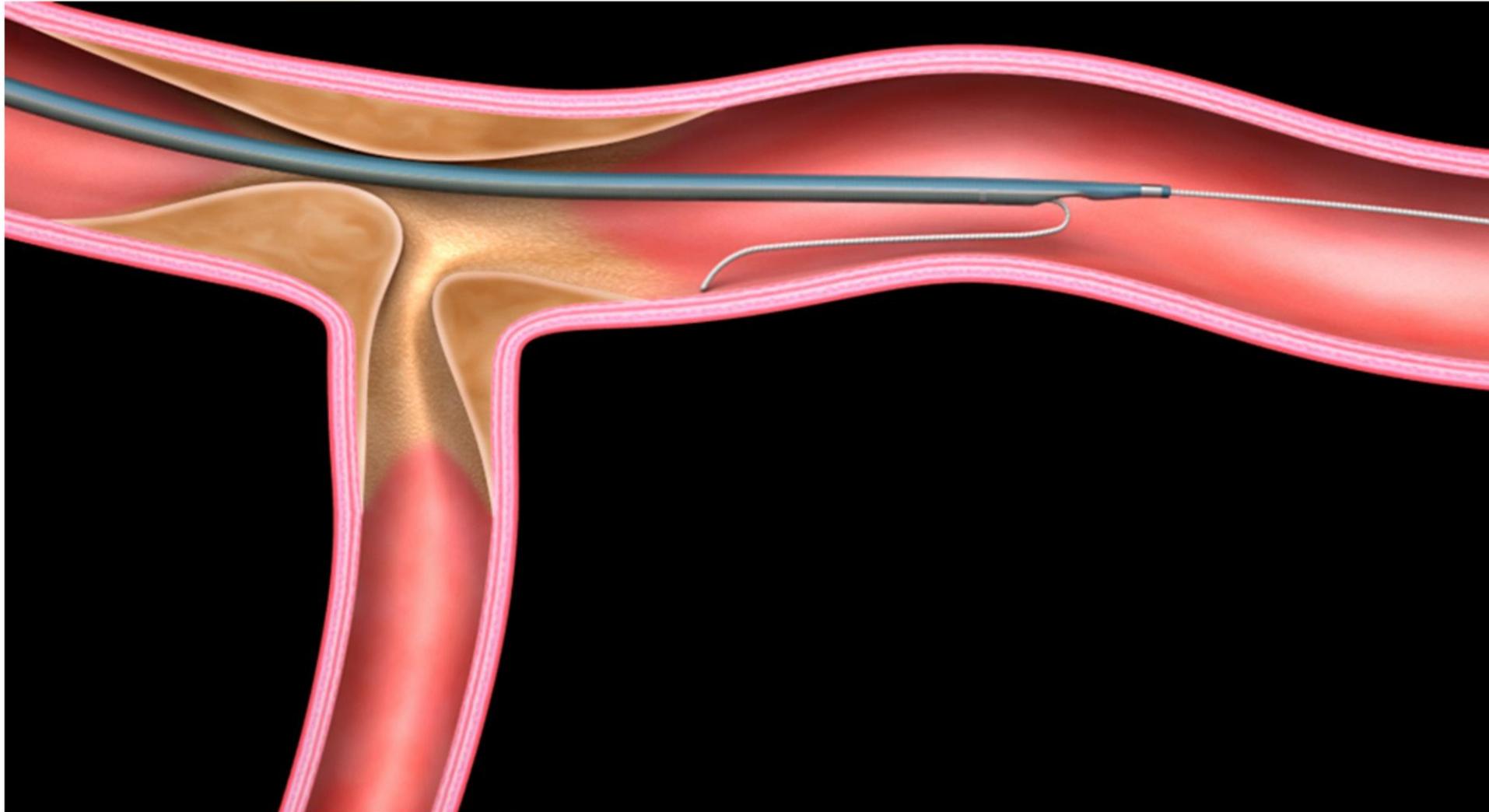
Modified reversed wire technique

modified by Murasato Y



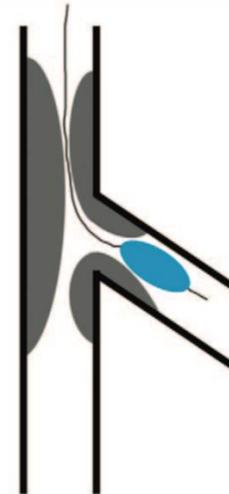
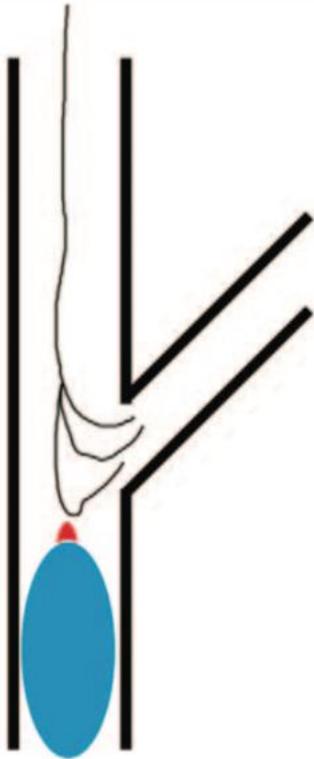


Swan GW Technique



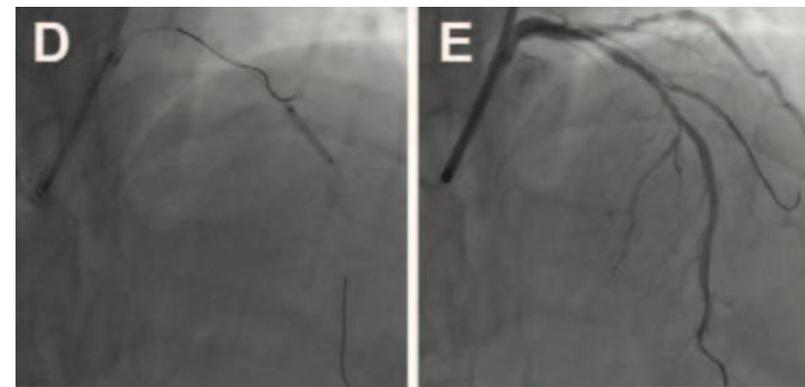
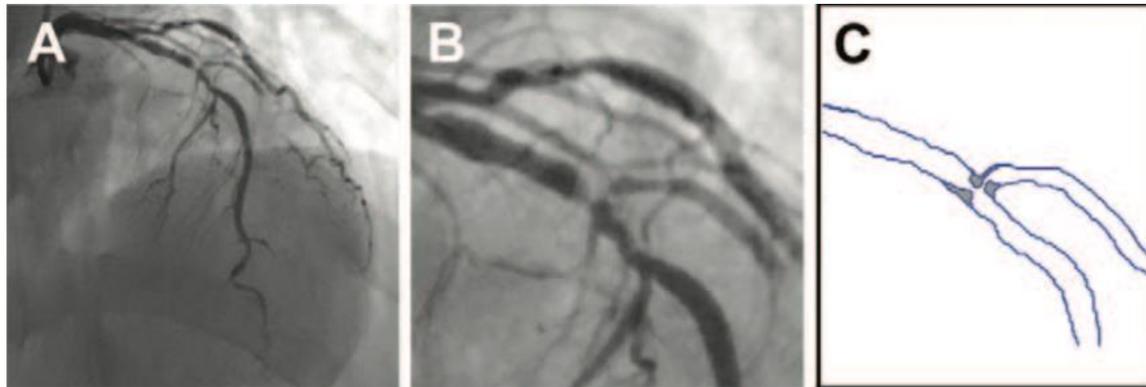
Case report of a novel maneuver to facilitate wire access to the side branch in bifurcation intervention-balloon block and support technique

Li Li, MD^{a,*}, Jia Liu, MD^a, Qinhuo Jin, MD^b, Shaoliang Chen, MD^c



Case report of a novel maneuver to facilitate wire access to the side branch in bifurcation intervention—balloon block and support technique

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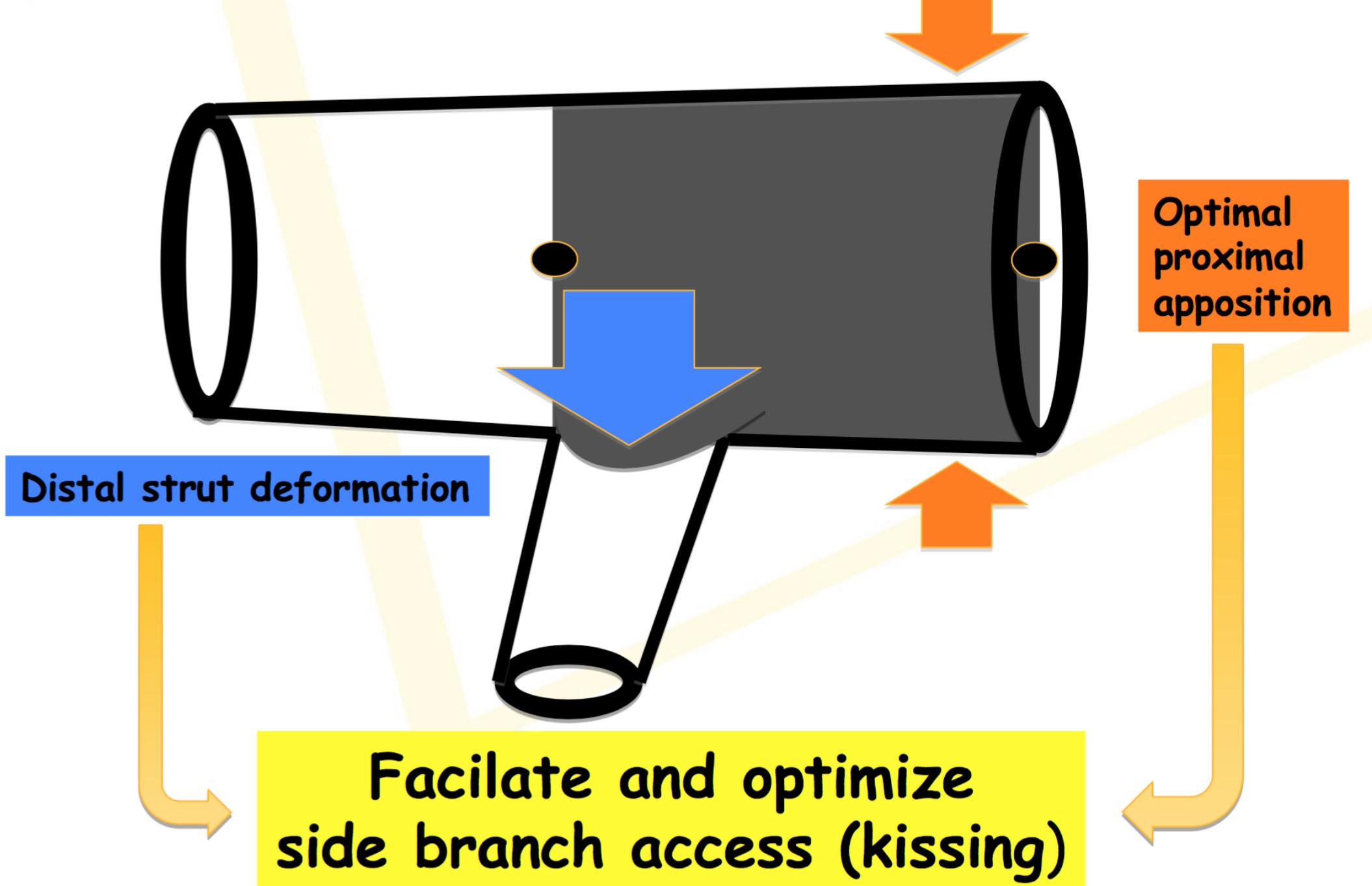


Case report of a novel maneuver to facilitate wire access to the side branch in bifurcation intervention—balloon block and support technique

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Après stenting de la branche
principale



Distal strut deformation

Optimal proximal apposition

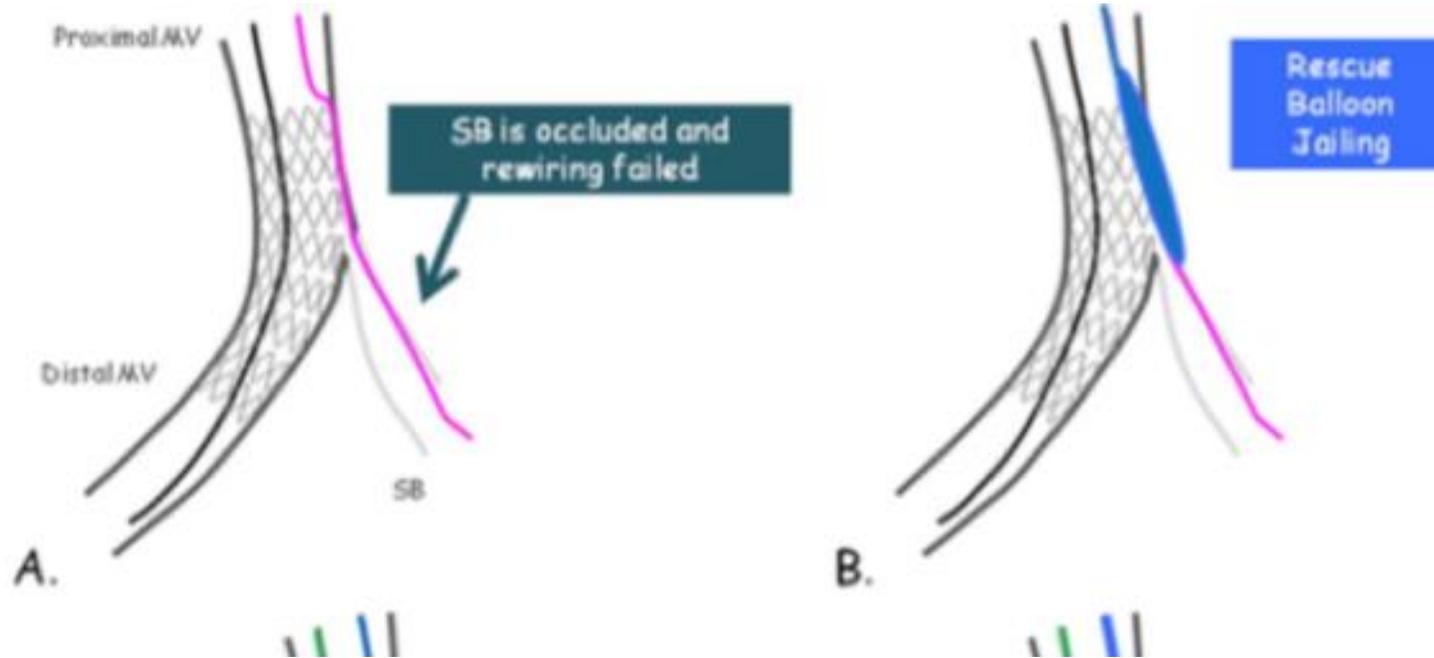
Faciliate and optimize side branch access (kissing)

Letter to the Editor

Jailed balloon protection and rescue balloon jailing techniques set the field for safer bifurcation provisional stenting

Francesco Burzotta *, Carlo Trani

Institute of Cardiology, Catholic University of the Sacred Heart, Rome, Italy

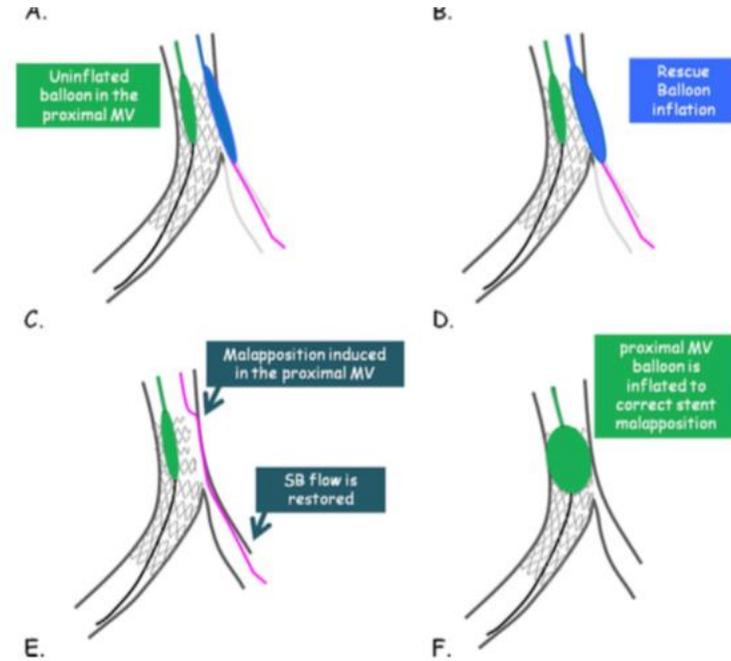
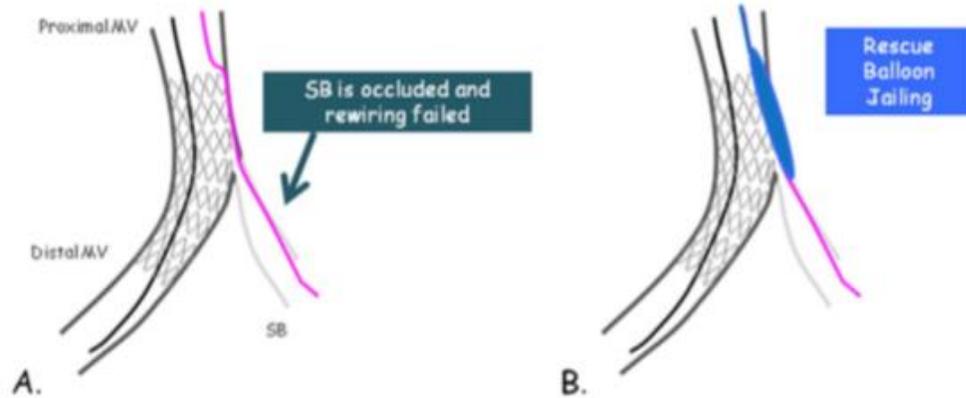


Jailed balloon protection and rescue balloon jailing techniques set the field for safer bifurcation provisional stenting



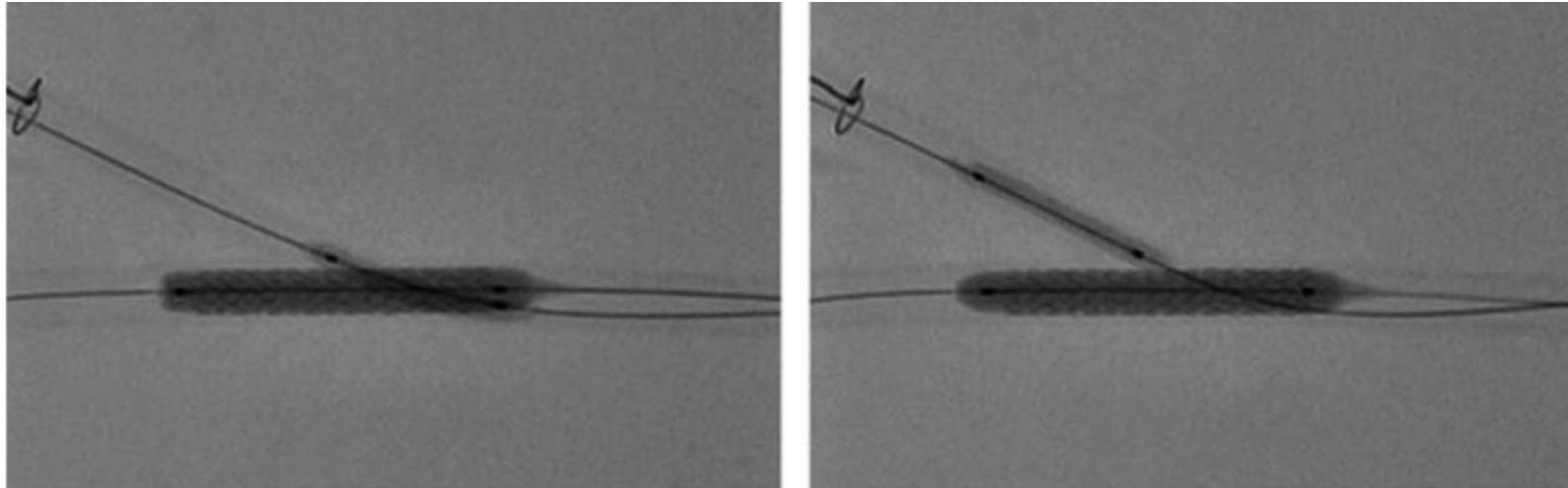
Francesco Burzotta *, Carlo Trani

Institute of Cardiology, Catholic University of the Sacred Heart, Rome, Italy



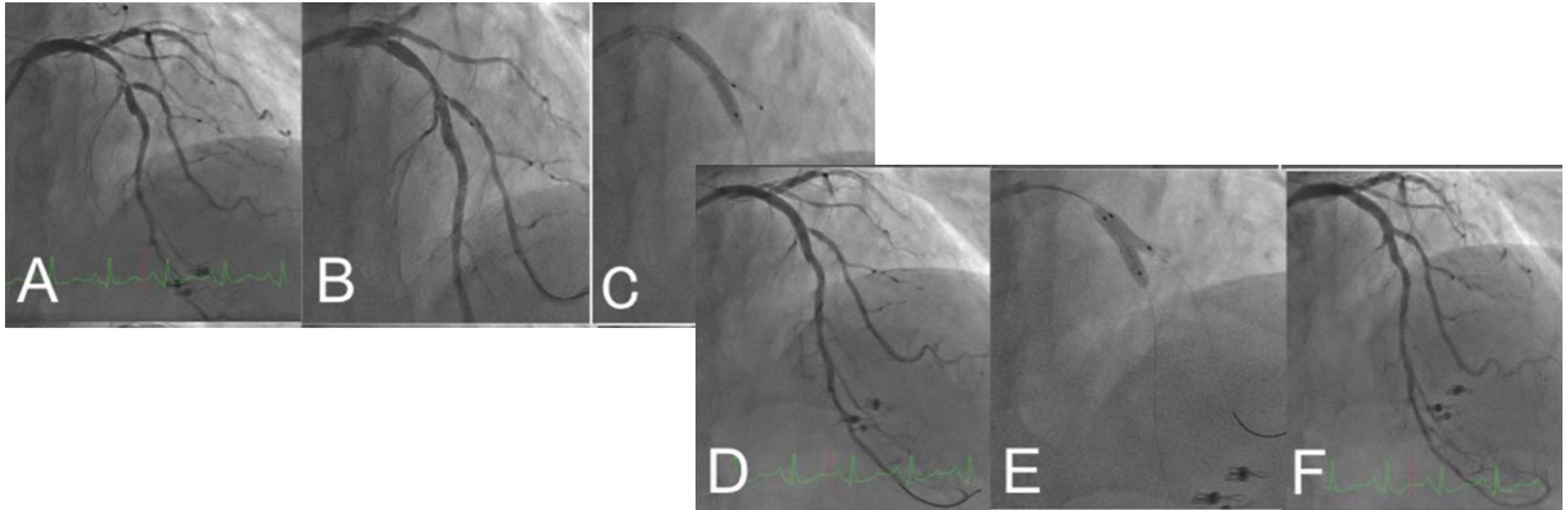
Modified jailed balloon technique for bifurcation lesions

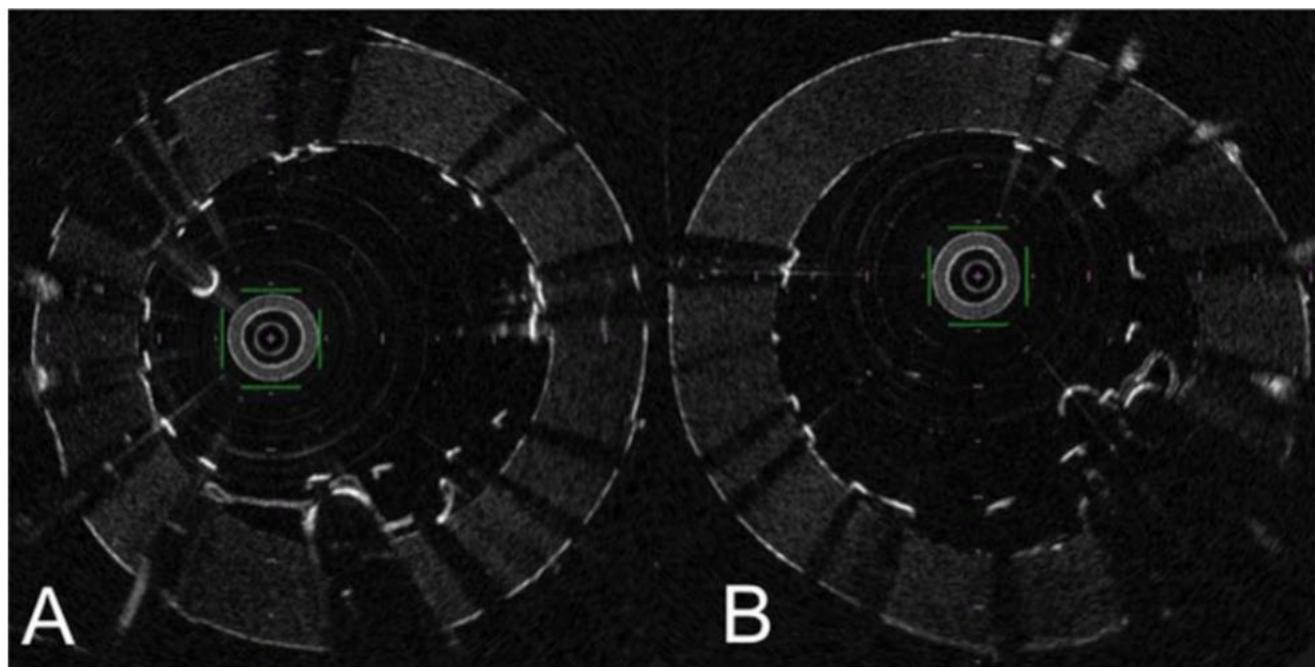
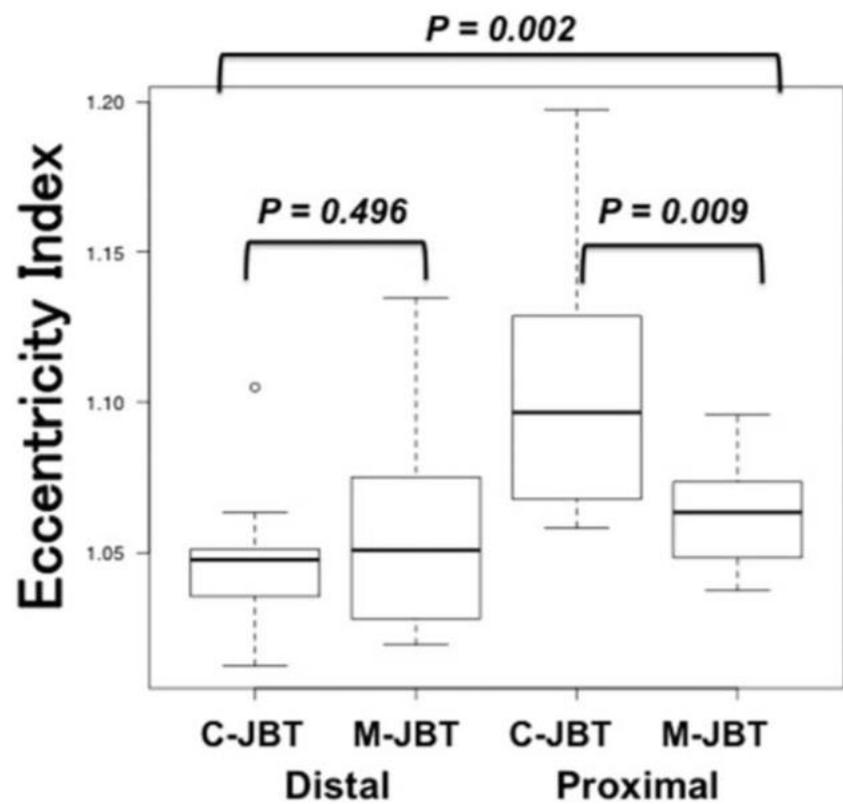
Shigeru Saito, MD, FACC, FSCAI, FJCC  | Koki Shishido, MD |
Noriaki Moriyama, MD | Tomoki Ochiai, MD | Shingo Mizuno, MD |
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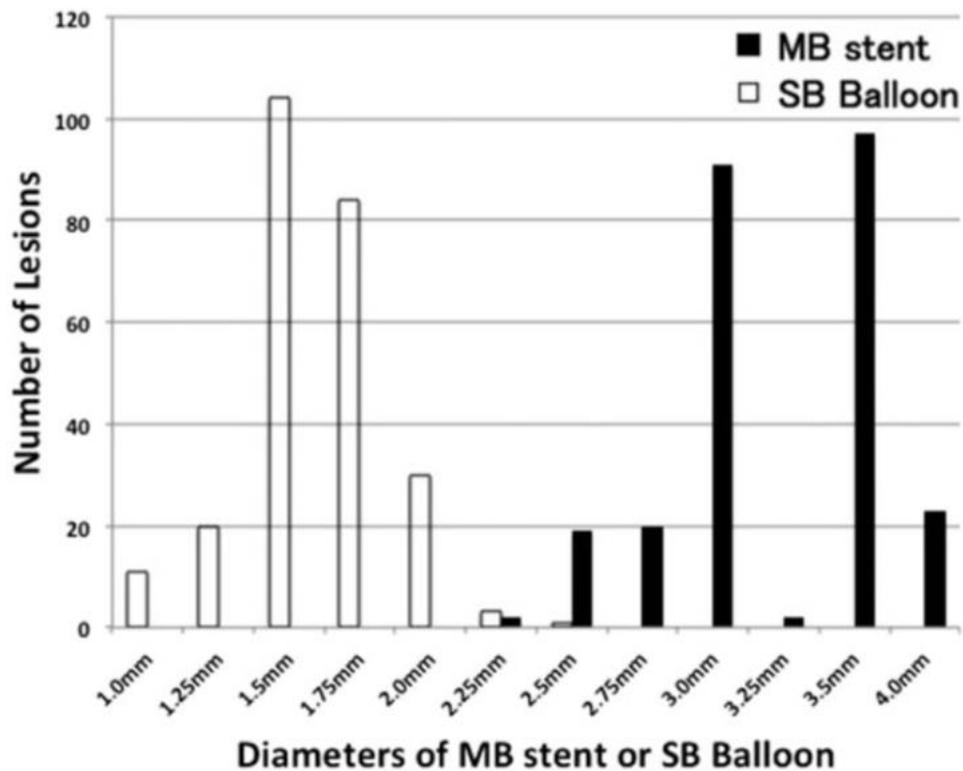
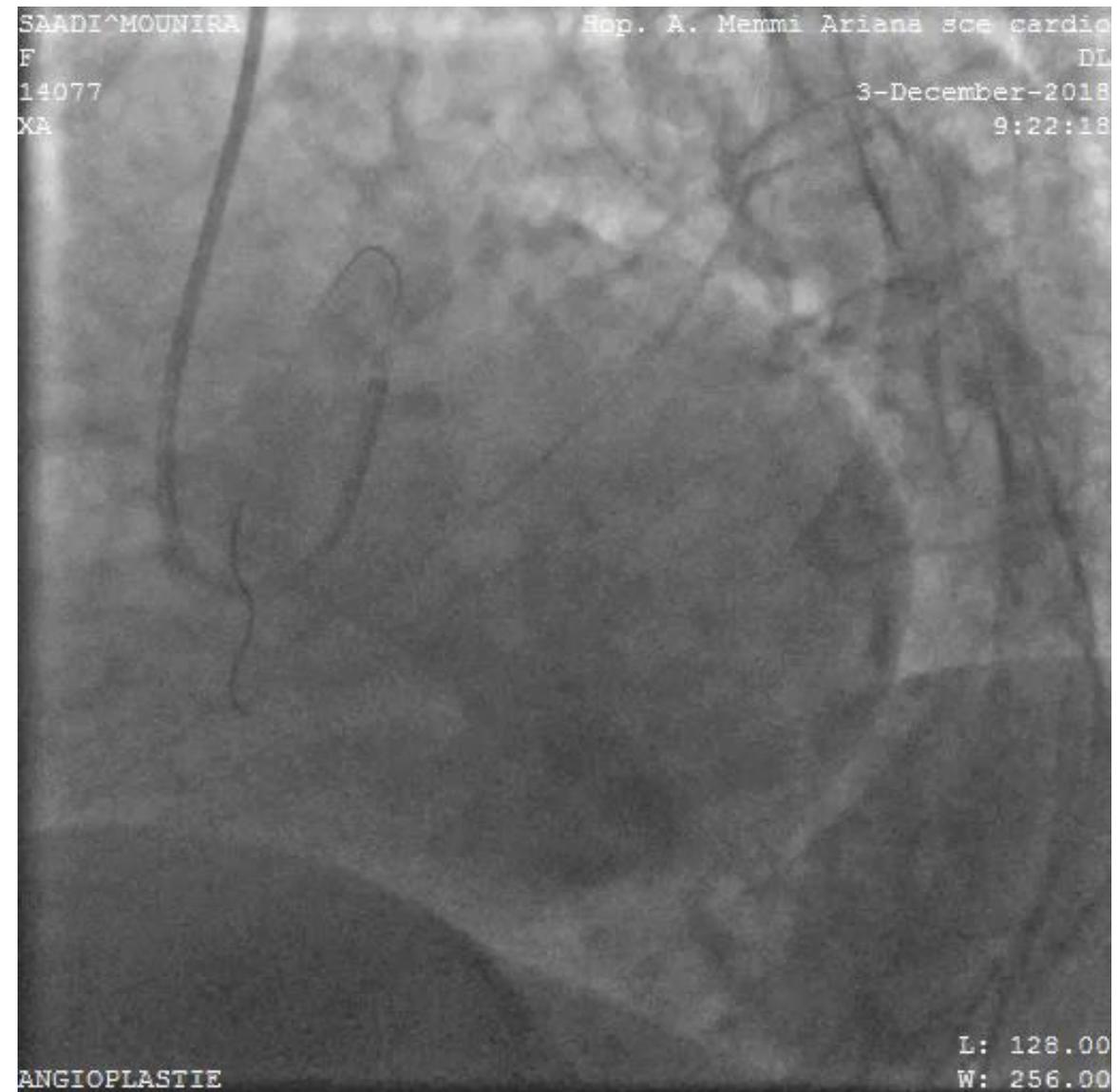
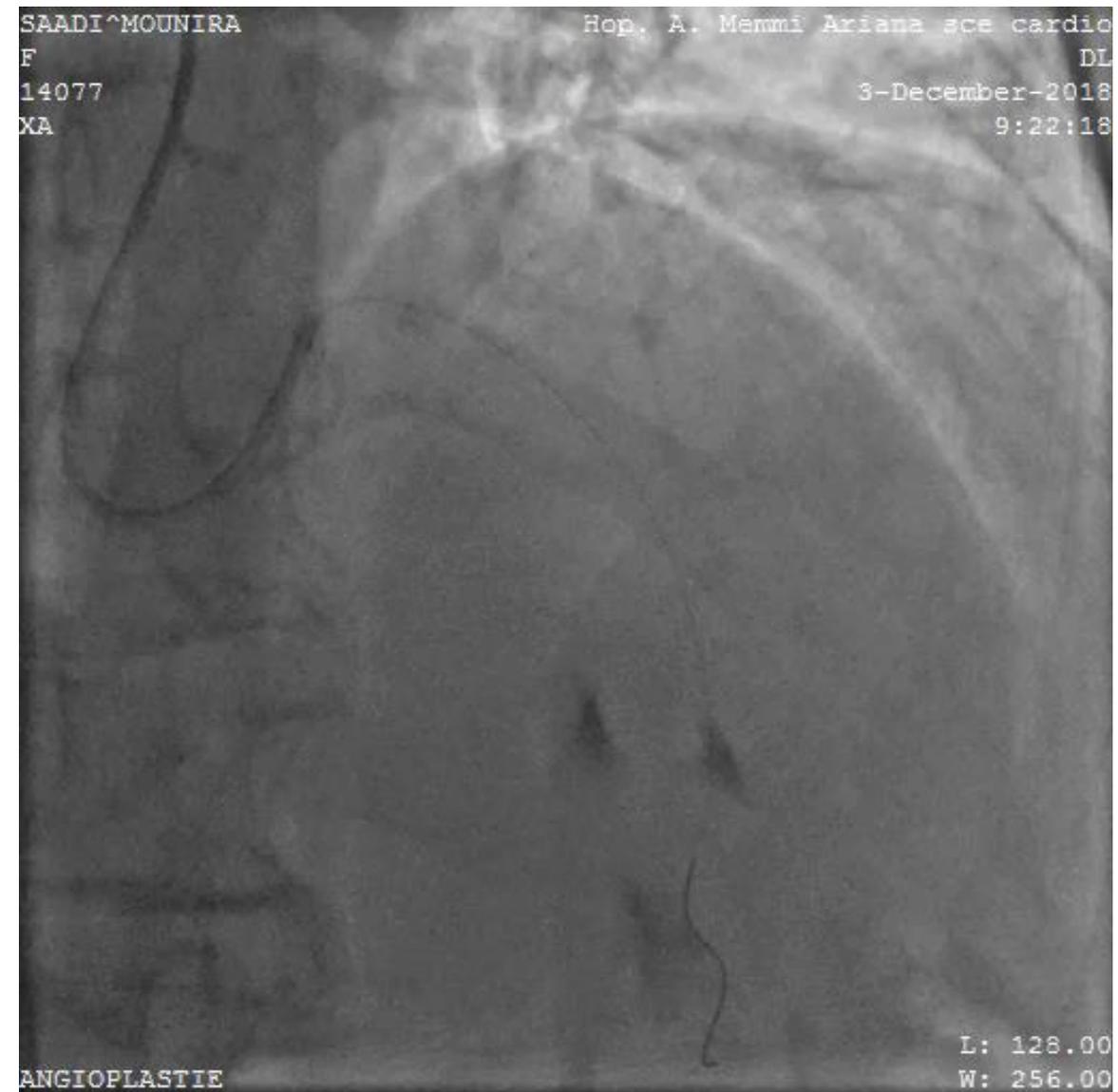


FIGURE 6 Distribution of MB stent and SB balloon diameters. This is distribution of MB stent and SB balloon diameters

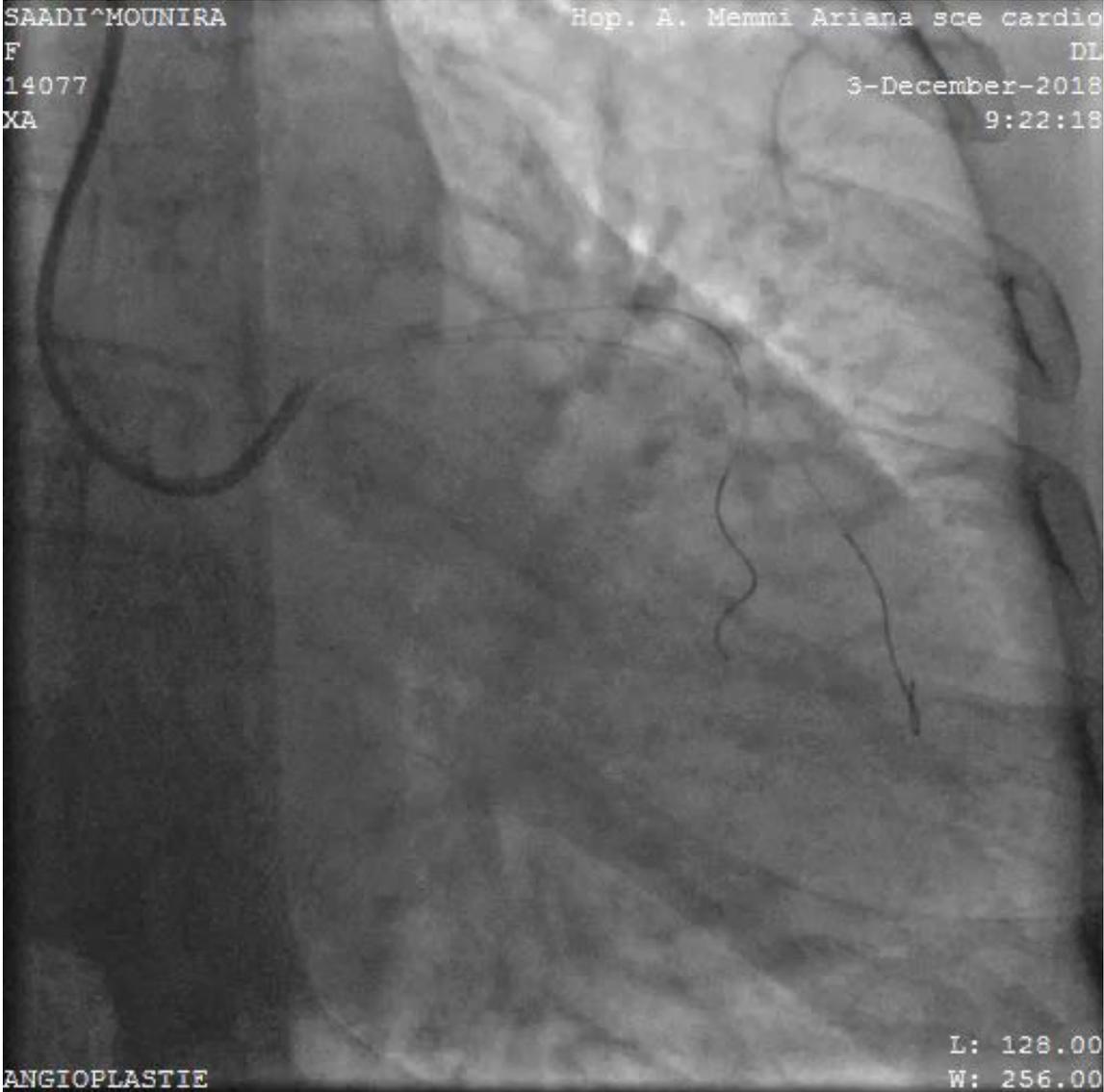
TABLE 4 Clinical outcomes

	All patients (N = 254)
Procedure success, <i>n</i> (%)	254 (100)
Post TIMI3, <i>n</i> (%)	253 (99.6)
Temporal occlusion, <i>n</i> (%)	0
Side branch occlusion, <i>n</i> (%)	0
Failure to recross, <i>n</i> (%)	4 (1.6)



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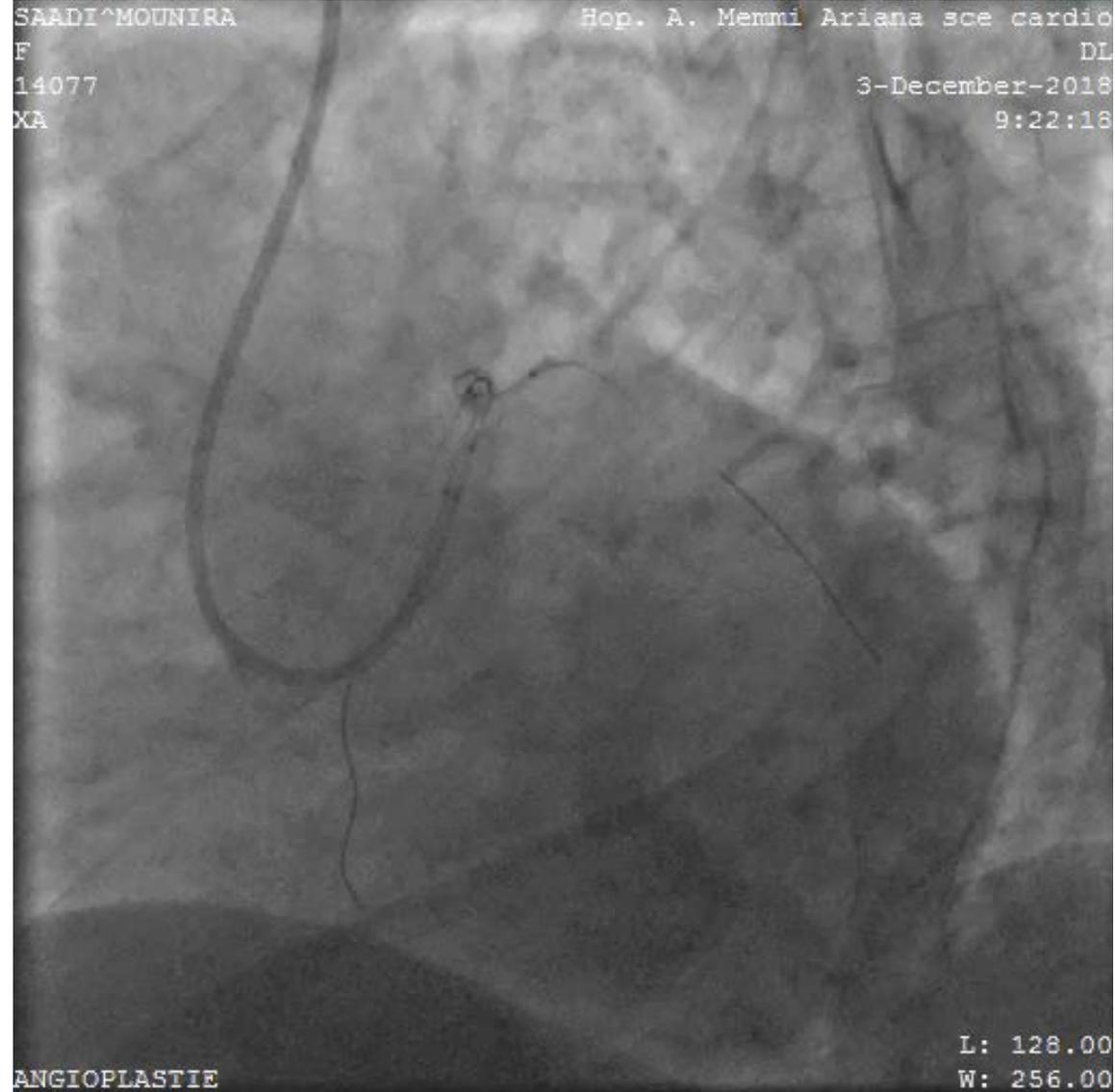


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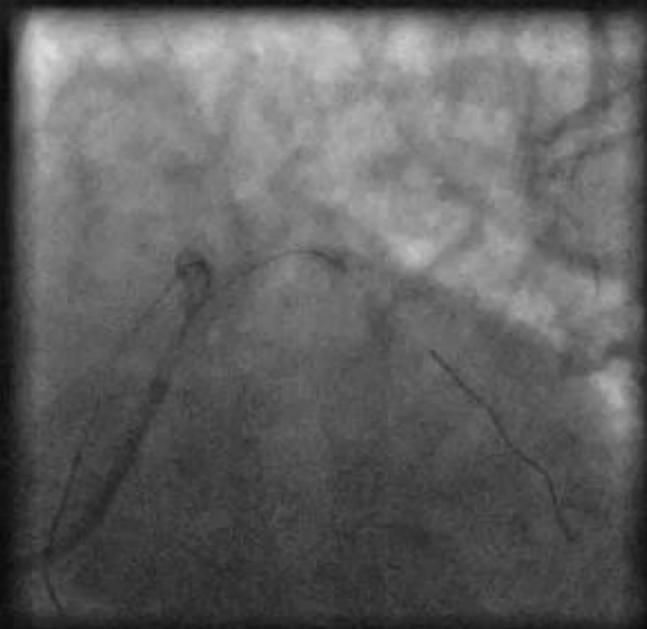
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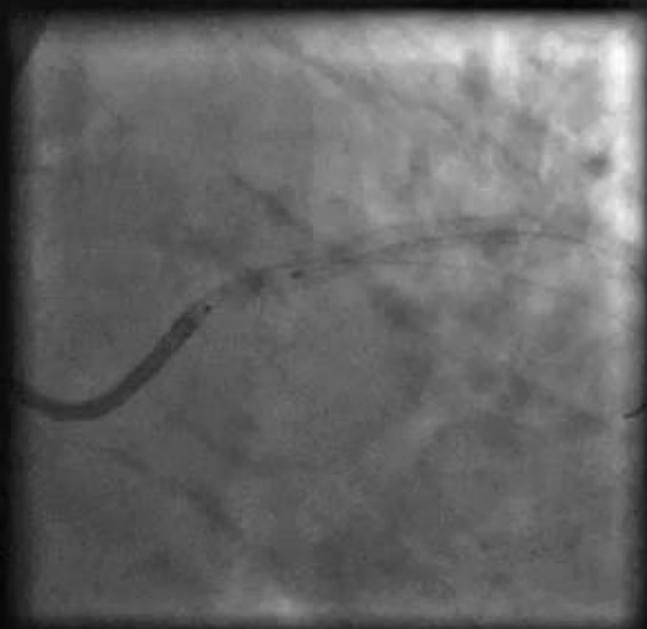
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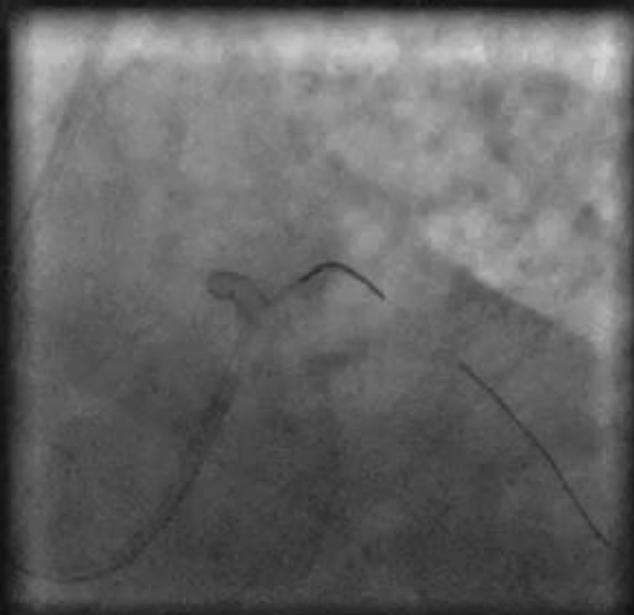
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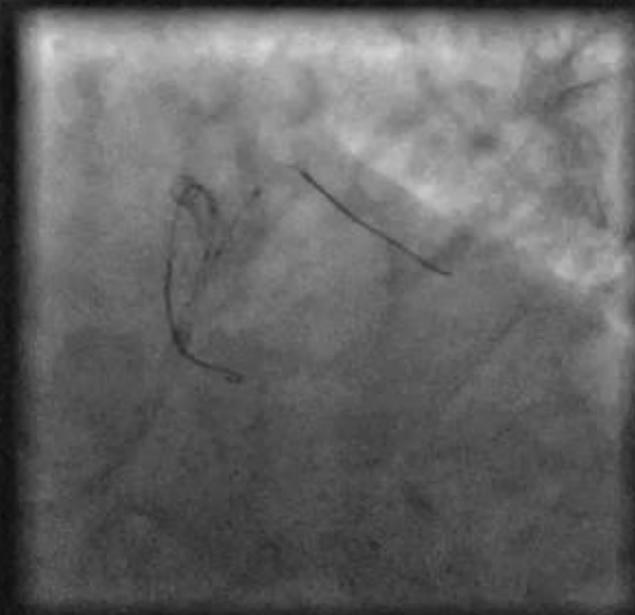
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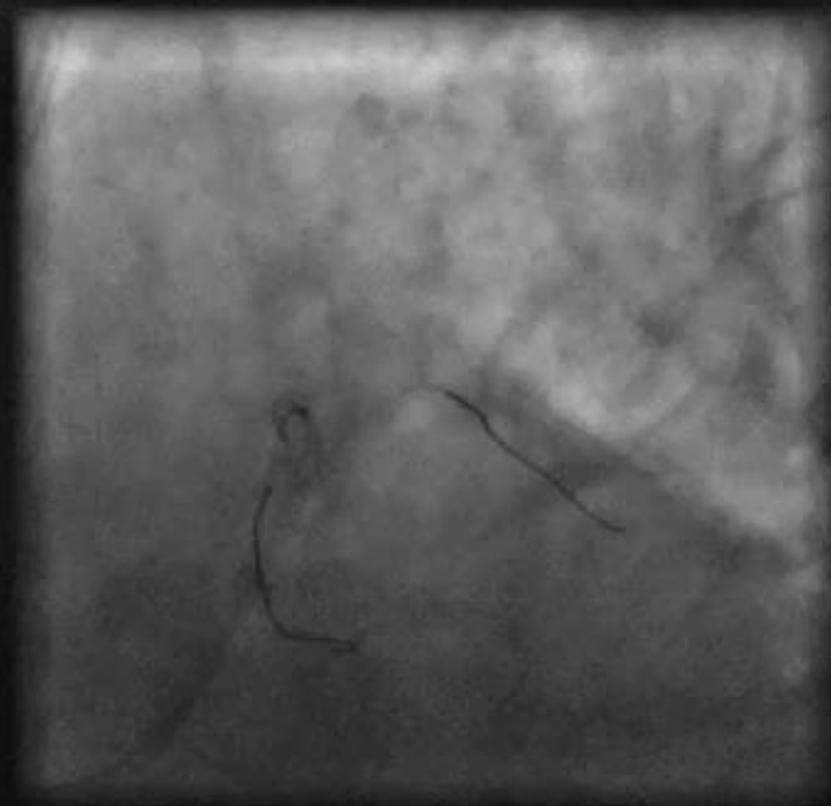
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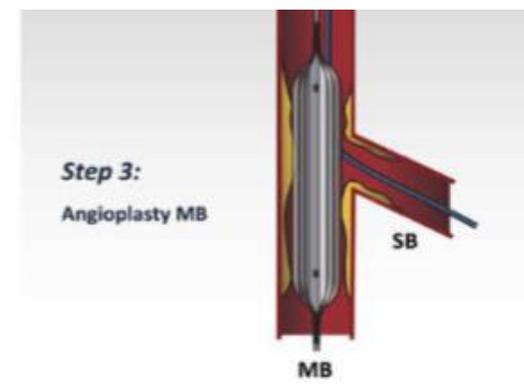
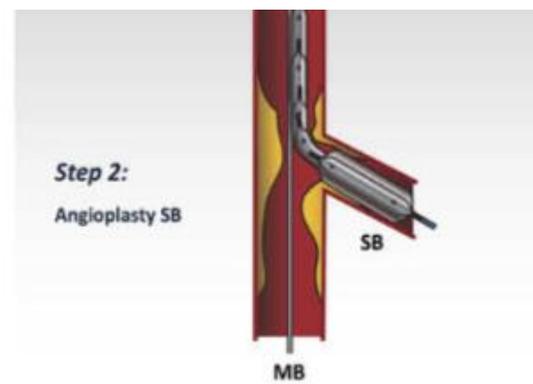
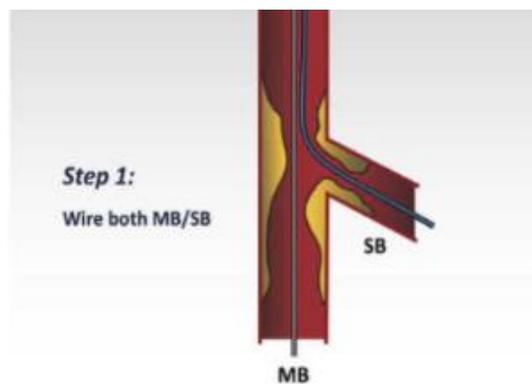
Interventional Cardiology

THE JAILED STENT BALLOON TECHNIQUE: A NOVEL CORONARY BIFURCATION TECHNIQUE

Poster Contributions

Poster Hall, Hall A/B

Sunday, March 11, 2018, 3:45 p.m.-4:30 p.m.





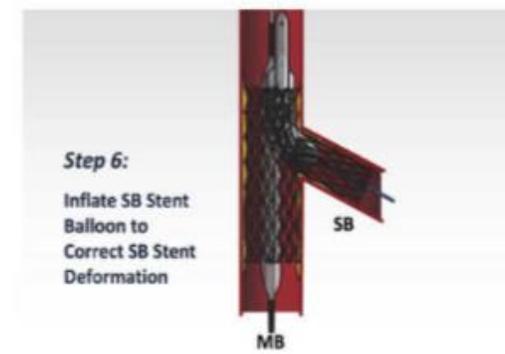
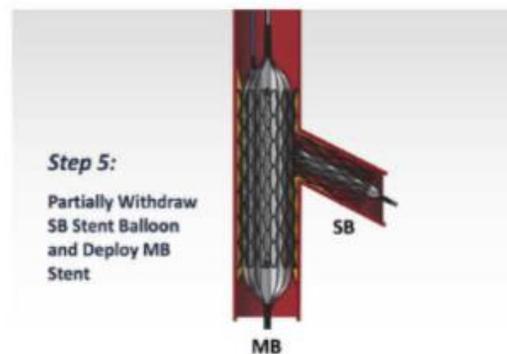
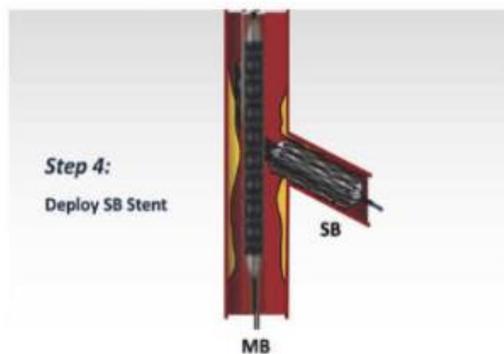
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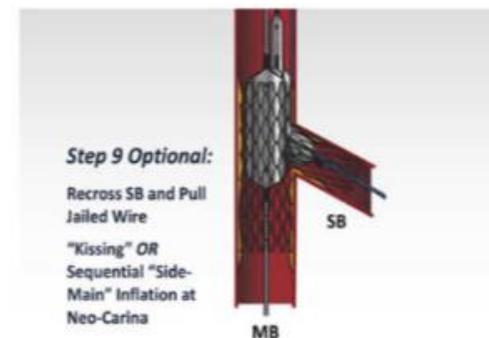
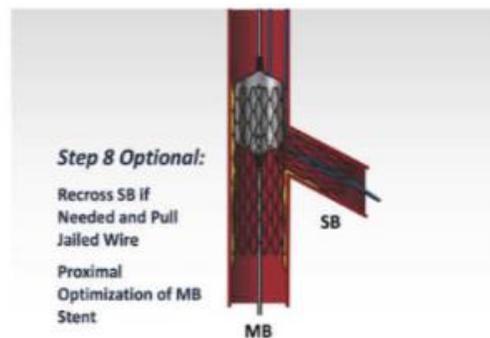
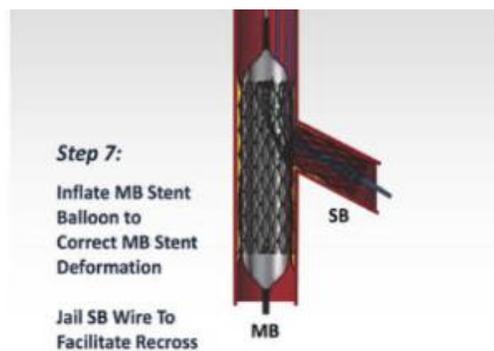


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Conclusions

- Perdre la branche fille est associée à une augmentation de la thrombose de stent et de la mortalité de causes cardiaques.
- Protéger la branche fille notamment dans les bifurcations vraies est donc une priorité
- C'est cette branche fille qui va conditionner notre stratégie
- Il existe actuellement des techniques qui permettent de récupérer la branche fille si elle est compromise.