



PALAIS DU PHARO  
□ MARSEILLE □

SAVE THE DATE  
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JANVIER 2024

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The bottom section of the poster features a grid of small, colorful images in shades of blue and green. The text is centered within this grid.

# La maladie coronaire



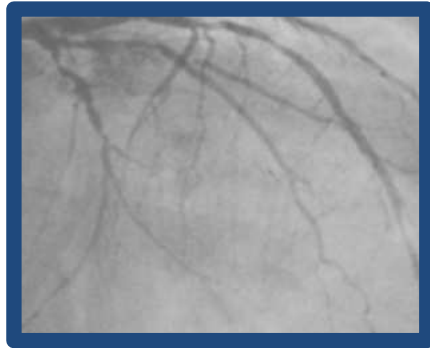
*Nicolas COMBARET*  
*26 janvier 2024*

*Ballon actif et lésions de novo*

# Quelles utilisations actuelles ?



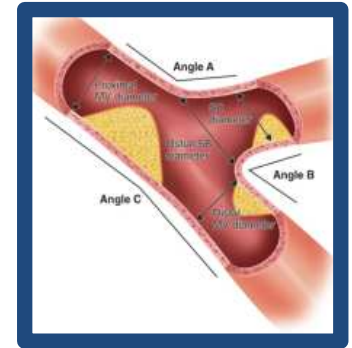
Resténose IS



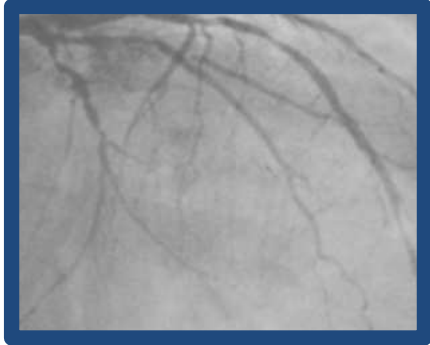
Atteinte diffuse



Lésion de novo  
*Petits vx*  
*Grands Vx*



Bifurcation



## *Pourquoi ?*

- Eviter le « full metal jacket »  
TLR à 3 ans = 23% si stenting > 60mm
- Permettre une chirurgie de pontage ultérieure
- Garder de la vasomotricité coronaire

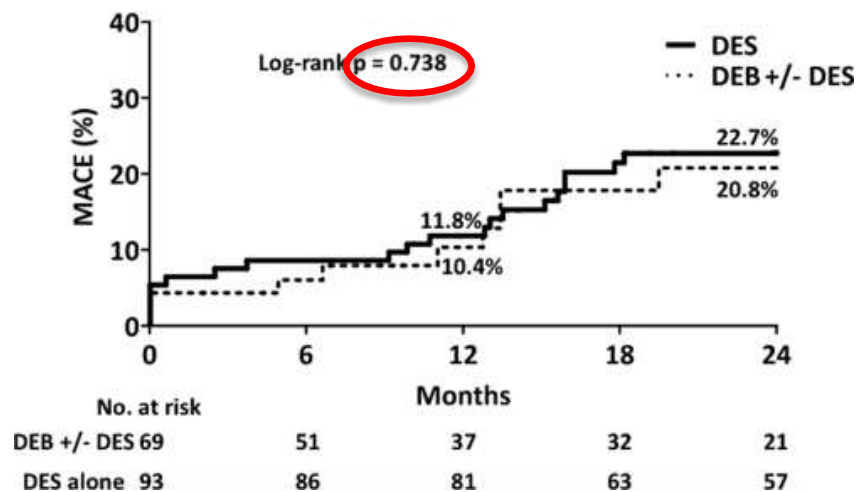
Etude rétrospective – 69 patients  
DES vs DCB +/- DES

Bail-out stenting : 7.4%

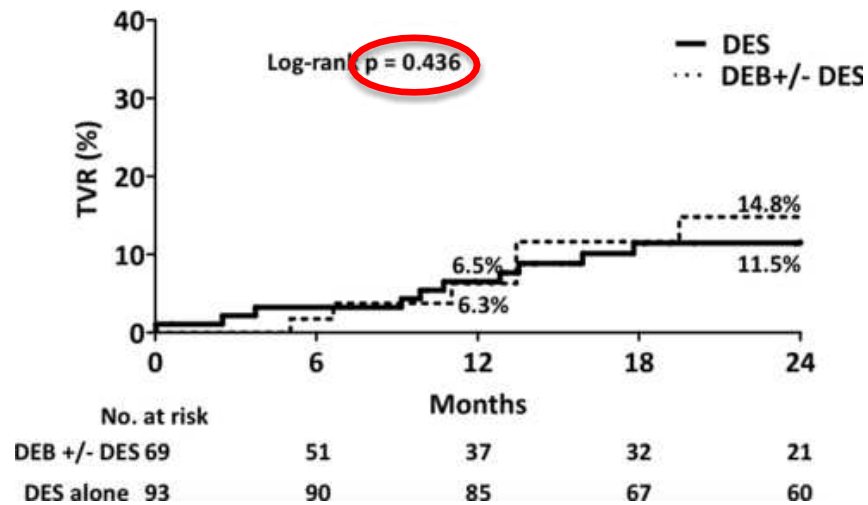
DCB + DES : 36.6%

Characteristic	DEB ± DES Strategy (n = 93)	DES-Along Strategy (n = 93)	p Value
Vessel treated			0.48
Left anterior descending artery	37 (39.8)	43 (46.2)	
Circumflex artery	16 (17.2)	18 (19.4)	
Right coronary artery	40 (43.0)	32 (34.4)	
Location of lesion in treated vessel			0.10
Proximal	4 (4.3)	10 (10.8)	
Mid/distal	89 (95.7)	83 (89.2)	
Balloon pre-dilation	80 (86.0)	84 (90.3)	0.36
Procedural adjuncts			
IVUS	37 (39.8)	30 (32.3)	0.28
Rotablation	3 (3.2)	4 (4.3)	0.70
Device characteristics			
DEB diameter, mm	2.52 ± 0.29	NA	
DES diameter, mm	2.95 ± 0.42	2.79 ± 0.25	<0.01
Total stent length, <sup>a</sup> mm	29.0 ± 9.1	50.2 ± 18.2	<0.01

Etude rétrospective – 69 patients  
DES vs DCB +/- DES



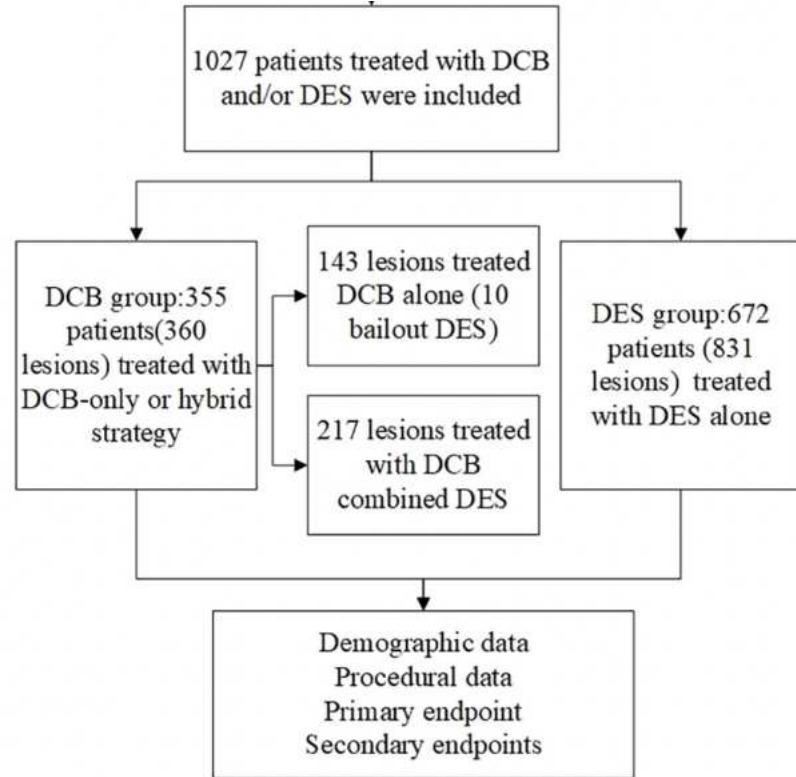
MACE



TVR

Etude prospective multicentrique  
DES vs DCB +/- DES

>1000 patients

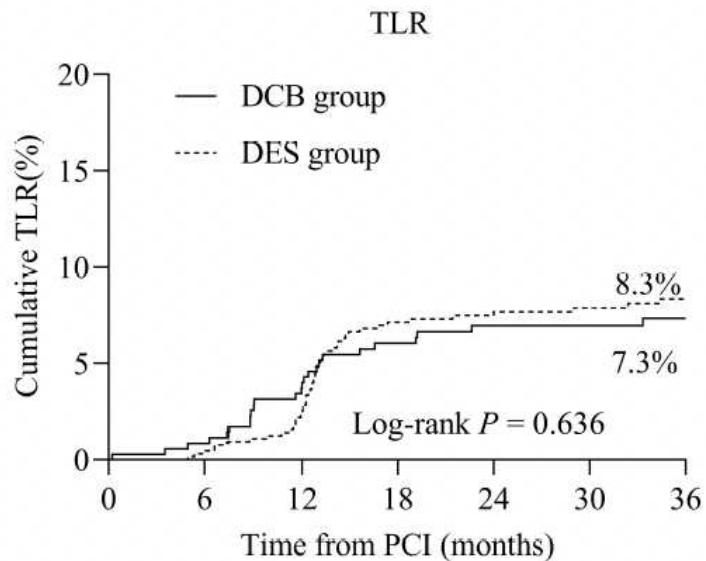


# DCB dans l'atteinte coronaire diffuse

	DCB group	DES group	P-value
No. of patients/lesions	355/360	672/831	
<b>Treatment Strategy</b>			
DCB-only	143 (39.7)	/	
DCB combined with DES	217 (60.3)	/	
DCB in proximal of lesion	92 (25.6)	/	
DCB in distal of lesion	125 (34.7)	/	
<b>Device characteristics</b>			
DCB diameter, mm	2.69 ± 0.39	/	
DCB length, mm	33.51 ± 16.60	/	
DES diameter, mm	2.84 ± 0.31	2.89 ± 0.39	0.047
DES length, mm	24.02 ± 23.62	51.89 ± 15.81	< 0.001

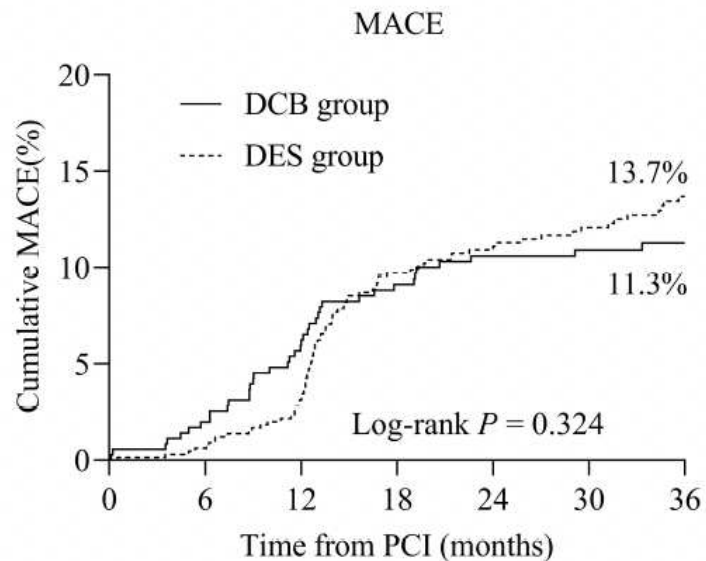
# DCB dans l'atteinte coronaire diffuse

A



TLR  
DCB+DES vs DES

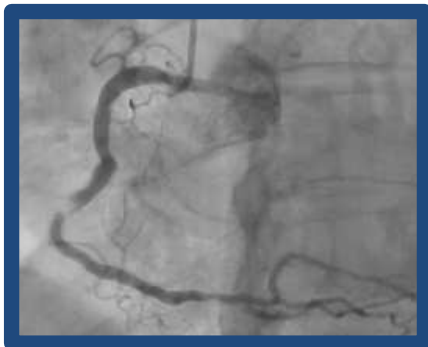
B



MACE  
DCB+DES vs DES



# DCB dans les lésions de novo



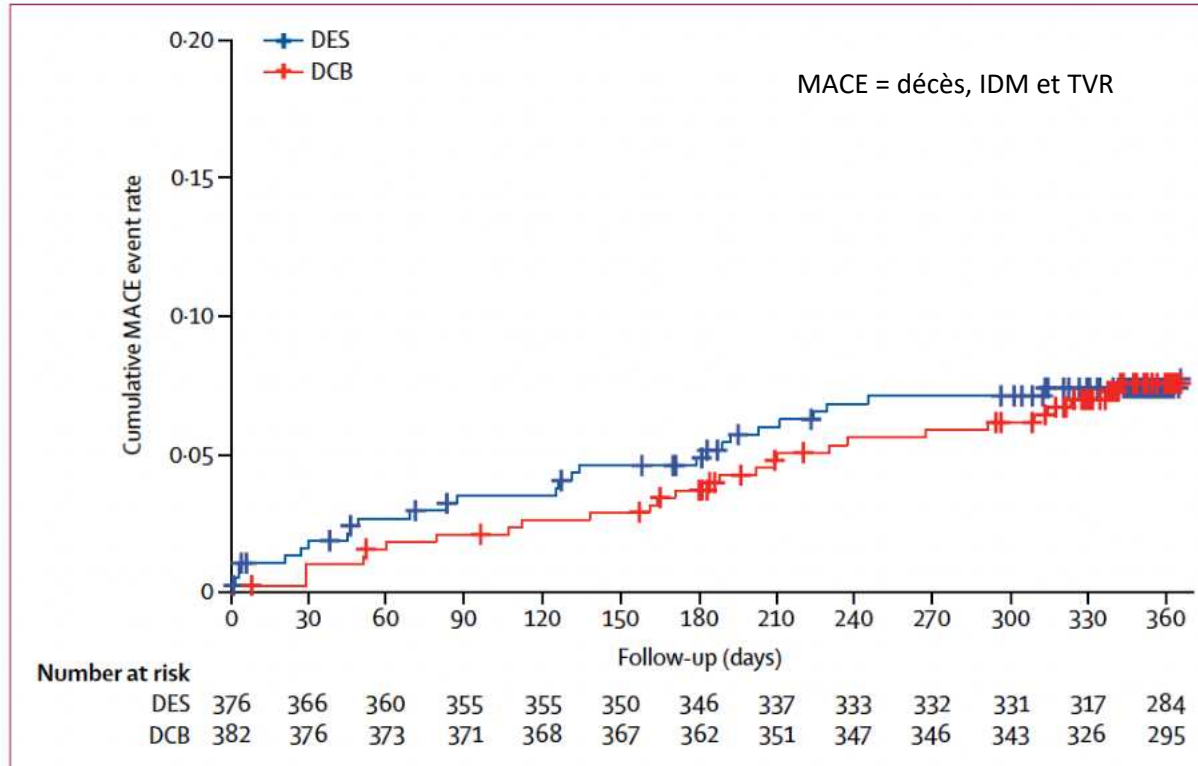
Petits vaisseaux

## Drug-coated balloons for small coronary artery disease (BASKET-SMALL 2): an open-label randomised non-inferiority trial

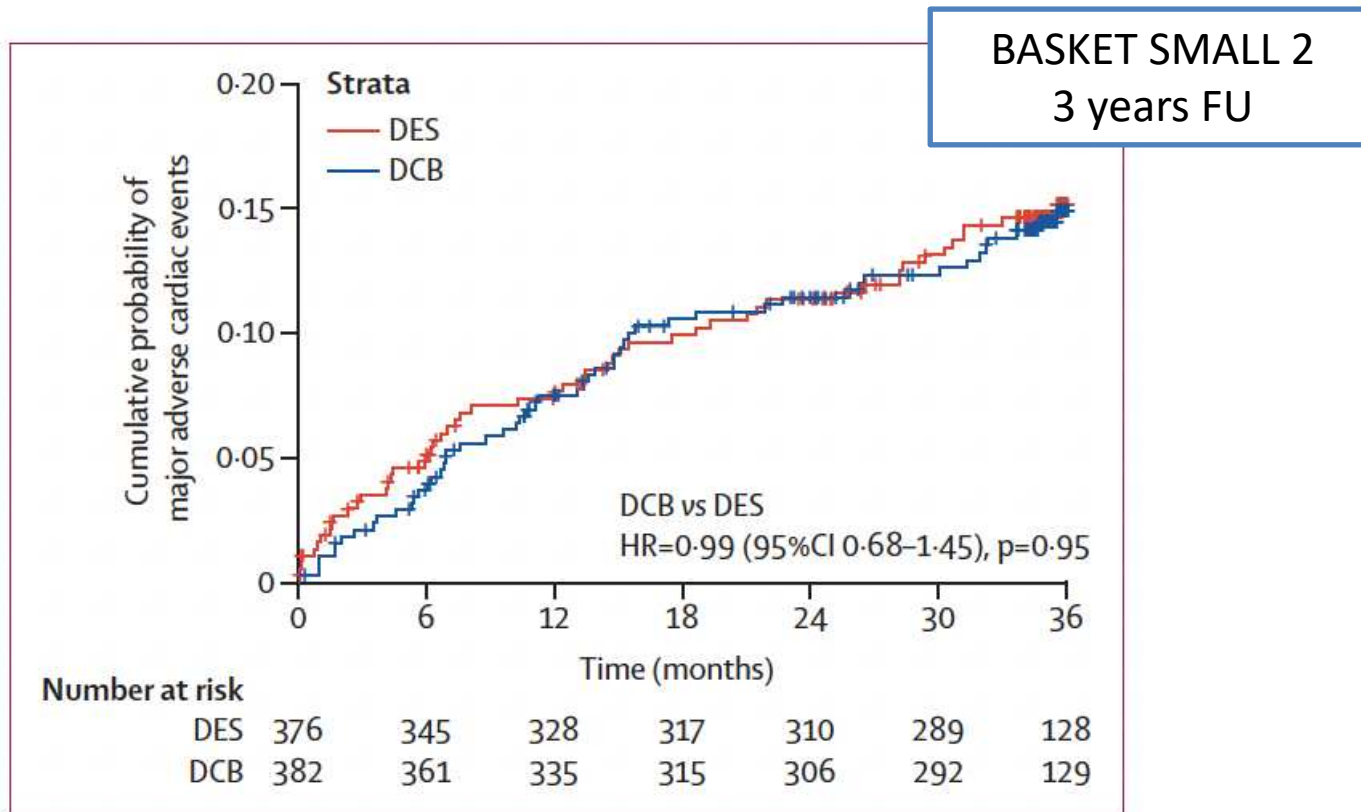
*Raban V Jeger, Ahmed Farah, Marc-Alexander Ohlow, Norman Mangner, Sven Möbius-Winkler, Gregor Leibundgut, Daniel Weilenmann, Jochen Wöhrle, Stefan Richter, Matthias Schreiber, Felix Mahfoud, Axel Linke, Frank-Peter Stephan, Christian Mueller, Peter Rickenbacher, Michael Coslovsky, Nicole Gilgen, Stefan Osswald, Christoph Kaiser, Bruno Scheller, for the BASKET-SMALL 2 Investigators*

- Etude randomisée multicentrique de non infériorité
- Diamètre vaisseau < 3mm – All comers
- 750 patients : randomisation 1:1
- Suivi 1 an

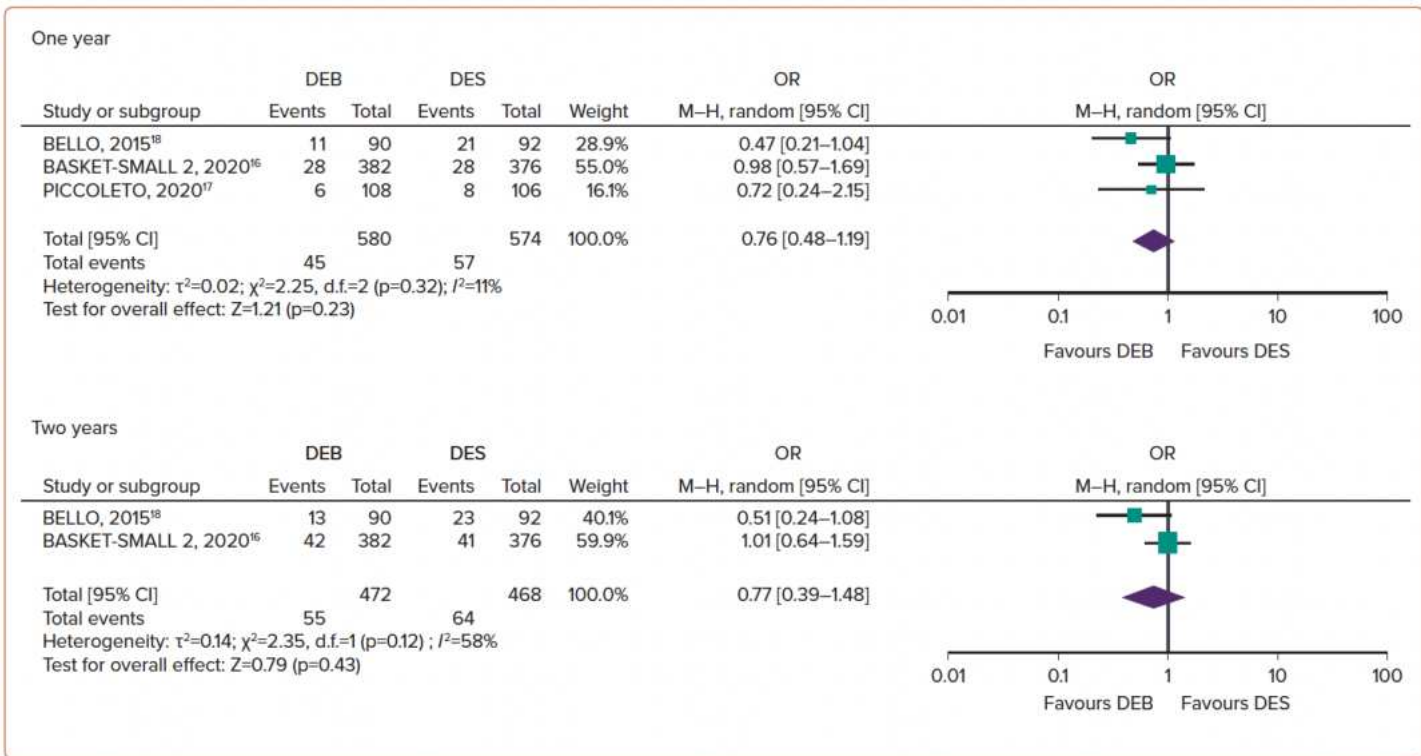
# DCB dans les lésions de novo : petits vaisseaux



# DCB dans les lésions de novo : petits vaisseaux



# DCB dans les lésions de novo : petits vaisseaux



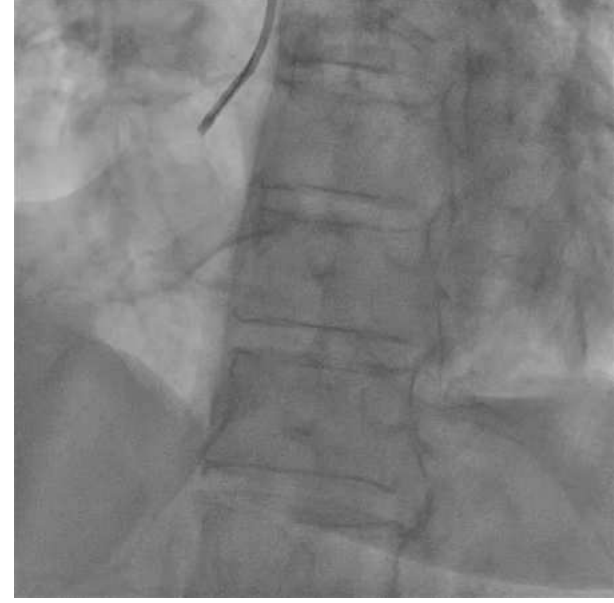
# Un cas clinique

Patiente de 70 ans

SCA ST+ sur subocclusion IVA - 1 DES  
Subocclusion coronaire droite dominée



Angioplastie CD durant le même temps hospitalier – DCB 2.5mm x30mm





Gros vaisseaux

## ORIGINAL ARTICLE

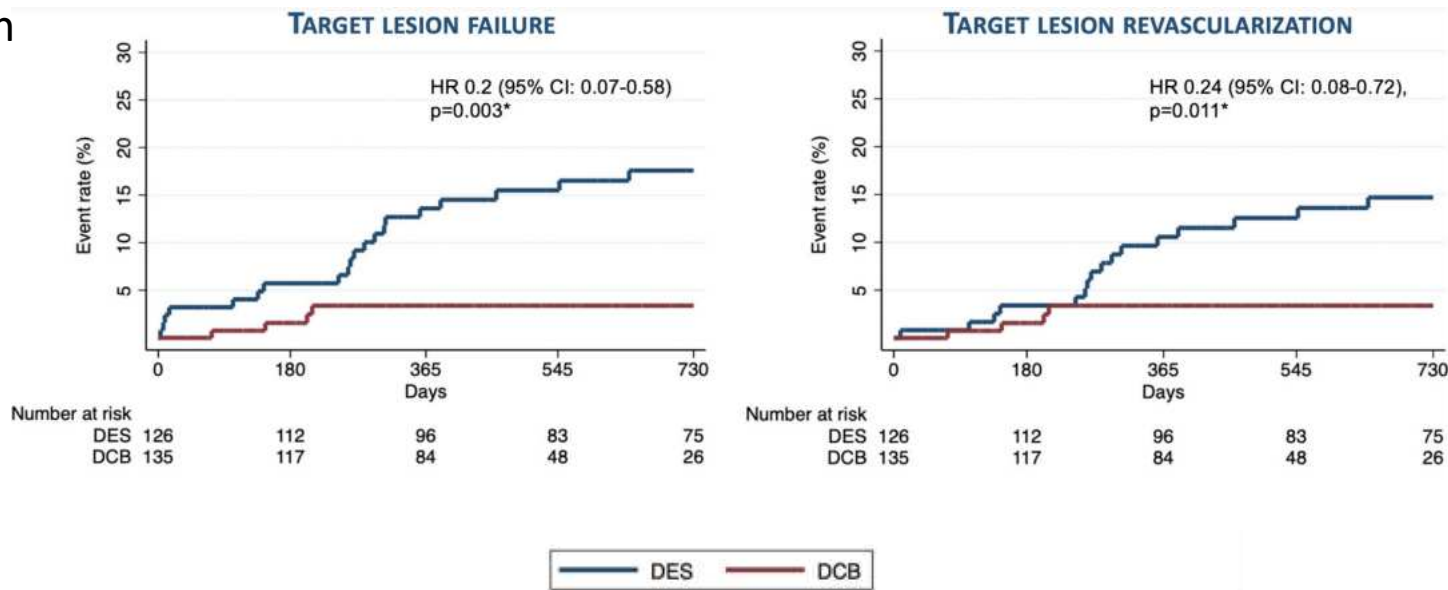
### Drug-Coated Balloon Angioplasty for De Novo Lesions on the Left Anterior Descending Artery

Mauro Gitto<sup>1</sup>, MD; Alessandro Sticchi, MD; Mauro Chiarito, MD; Laura Novelli, MD; Pier Pasquale Leone<sup>2</sup>, MD, MSc; Gianluca Mincione, MD; Angelo Oliva<sup>3</sup>, MD; Francesco Condello<sup>4</sup>, MD; Marco Luciano Rossi, MD; Damiano Regazzoli, MD; Gabriele Gasparini<sup>5</sup>, MD; Ottavia Cozzi<sup>6</sup>, MD; Giulio G. Stefanini<sup>7</sup>, MD; Gianluigi Condorelli<sup>8</sup>, MD; Bernhard Reimers<sup>9</sup>, MD; Antonio Mangieri<sup>10</sup>, MD; Antonio Colombo<sup>11</sup>, MD

- Etude bicentrique rétrospective sur 4 ans
- 147 DCB (29% seul, 71% hybride) vs 701 DES
- ATL de l'IVA seulement – diamètre médian 3.1
- Lésion de novo dans 42% des cas
- Suivi 2 ans

Score de propension

Moins de TLR  
 Donc moins de TLF  
 Groupe DCB  
 à 2 ans





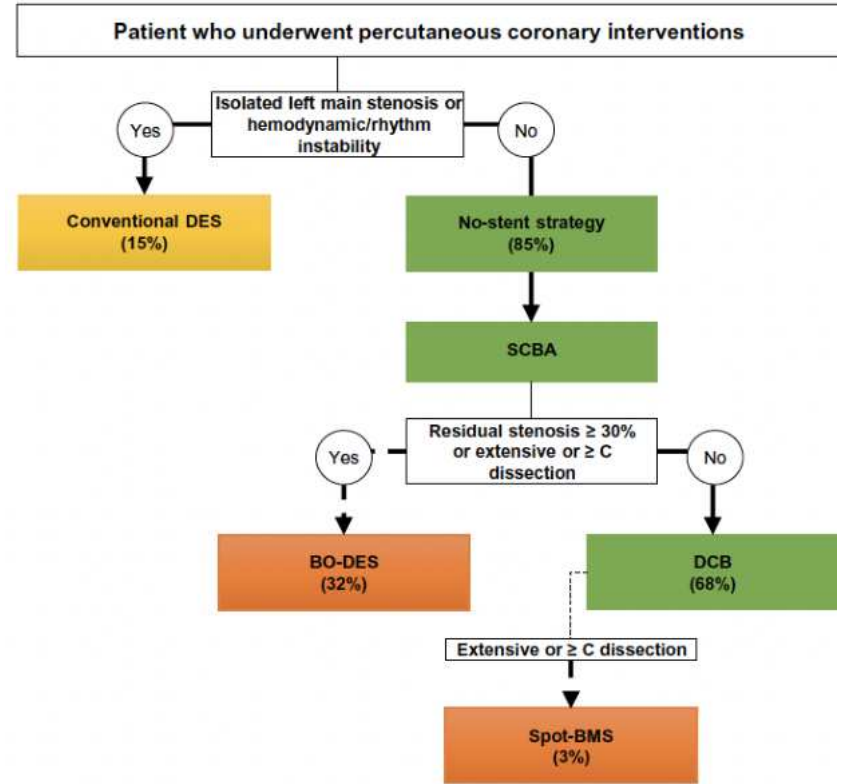
ORIGINAL PAPER

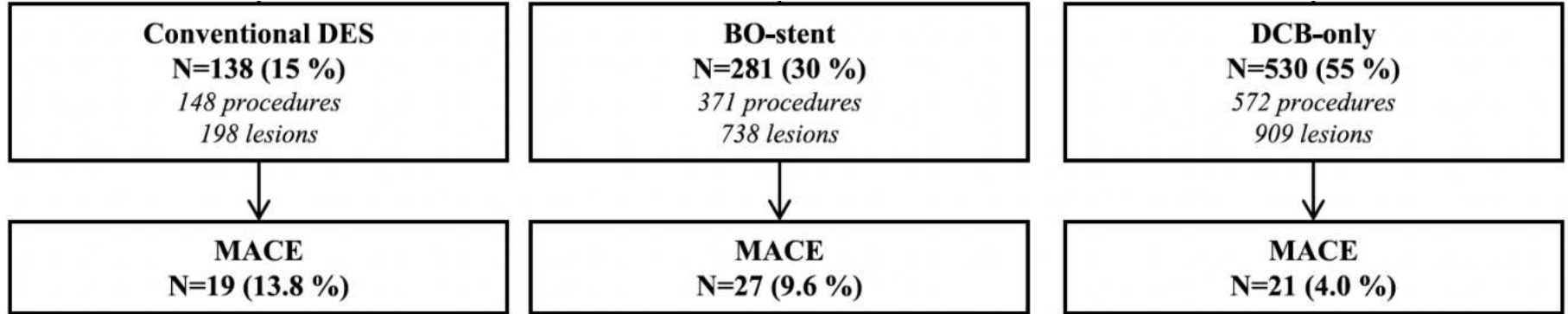


Prospective, single-centre evaluation of the safety and efficacy of percutaneous coronary interventions following a decision tree proposing a no-stent strategy in stable patients with coronary artery disease (SCRAP study)

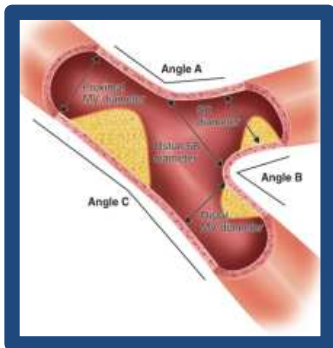
Ludovic Meunier<sup>1</sup> · Matthieu Godin<sup>2</sup> · Géraud Souteyrand<sup>3</sup> · Benoit Mottin<sup>1</sup> · Yann Valy<sup>1</sup> · Vincent Lordet<sup>1</sup> · Christian Benoit<sup>1</sup> · Ronan Bakdi<sup>1</sup> · Virginie Laurençon<sup>4</sup> · Philippe Genereux<sup>5,6</sup> · Matthias Waliszewski<sup>7,8</sup> · Caroline Allix-Béguec<sup>4</sup>

- Etude monocentrique prospective
- All comers
- 984 patients – 1922 lésions
- Suivi 12 mois





# DCB dans les bifurcations



Bifurcation

## 2 stratégies possibles:

- DCB sur la branche fille + DES sur la branche mère
- DCB sur la branche fille +/- DCB sur la branche mère

Peu de données – petites cohortes – études ancillaires...

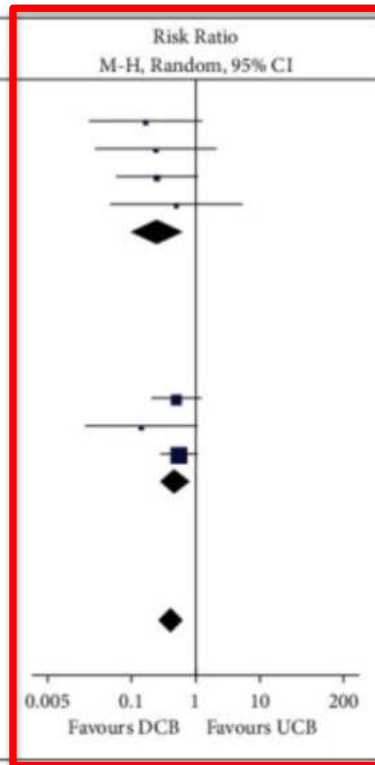
## DCB sur la branche fille + DES sur la branche mère

Méta-analyse > 800 pts

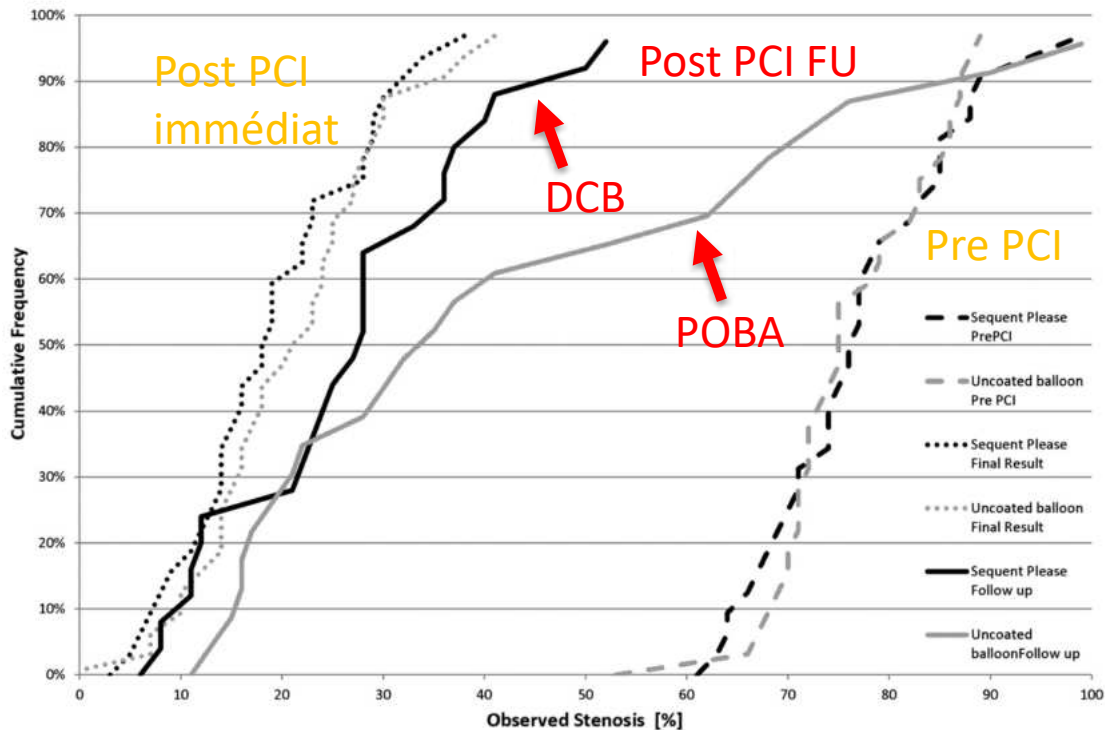
DCB vs POBA  
dans la side

Analyse MACE  
(TLR, IDM, décès)

Study or Subgroup	DCB		UCB		Weight (%)	Risk Ratio M-H, Random, 95% CI
	Events	Total	Events	Total		
<b>1.4.1 RCT</b>						
Zong 2018	1	21	6	21	5.0	0.17 [0.02, 1.27]
Jing 2020	1	113	4	109	4.4	0.24 [0.03, 2.12]
Bu 2021	2	30	8	30	9.7	0.25 [0.06, 1.08]
Zhang 2021	1	50	2	50	3.7	0.50 [0.05, 5.34]
<b>Subtotal (95% CI)</b>		<b>214</b>		<b>210</b>	<b>22.8</b>	<b>0.25 [0.10, 0.66]</b>
Total events	5		20			
Heterogeneity: Tau <sup>2</sup> = 0.00; Chi <sup>2</sup> = 0.48, df = 3 (P = 0.92); I <sup>2</sup> = 0%						
Test for overall effect: Z = 2.82 (P = 0.005)						
<b>1.4.2 NRCT</b>						
Herrador 2013	6	50	12	50	25.7	0.50 [0.20, 1.23]
Zhang 2019	1	28	8	32	5.1	0.14 [0.02, 1.07]
Li 2021	11	102	23	117	46.5	0.55 [0.28, 1.07]
<b>Subtotal (95% CI)</b>		<b>180</b>		<b>199</b>	<b>77.2</b>	<b>0.49 [0.29, 0.82]</b>
Total events	18		43			
Heterogeneity: Tau <sup>2</sup> = 0.00; Chi <sup>2</sup> = 1.59, df = 2 (P = 0.45); I <sup>2</sup> = 0%						
Test for overall effect: Z = 2.73 (P = 0.006)						
<b>Total (95% CI)</b>		<b>394</b>		<b>409</b>	<b>100.0</b>	<b>0.42 [0.27, 0.66]</b>
Total events	23		63			
Heterogeneity: Tau <sup>2</sup> = 0.00; Chi <sup>2</sup> = 3.51, df = 6 (P = 0.74); I <sup>2</sup> = 0%						
Test for overall effect: Z = 3.74 (P = 0.0002)						
Test for subgroup differences: Chi <sup>2</sup> = 1.38, df = 1 (P = 0.24), I <sup>2</sup> = 27.5%						



## DCB sur la branche fille +/- DCB sur la branche mère



Etude PEPCAD-BIF

Medina 0,X,X

Randomisation DCB vs POBA

64 patients

FU 9 mois

Analyse angio (Late Loss)

# Quelles recommandations ?

 ESC European Heart Journal (2018) 00, 1–98  
European Society of Cardiology doi:10.1093/eurheartj/ehy394

ESC/EACTS GUIDELINES

## 2018 ESC/EACTS Guidelines on myocardial revascularization

In terms of the use of DCB angioplasty for *de novo* disease, a number of small randomized trials have been reported with somewhat conflicting results.<sup>599–601</sup> At present, there are no convincing data to support the use of DCB angioplasty for this indication.

 ESC European Heart Journal (2023) 00, 1–107  
European Society of Cardiology https://doi.org/10.1093/eurheartj/ehad191

ESC GUIDELINES

## 2023 ESC Guidelines for the management of acute coronary syndromes

Given the limitations of these studies (in particular, the relatively small sample sizes), the use of DCB in NSTEMI-ACS requires further investigation in order to better inform future guideline recommendations.<sup>371</sup>



*Pas de FDA approval pour les DCB*

- **Maladie coronaire diffuse**
  - Stratégie hybride DES+DCB
  - Evitons le full metal jacket
- **DCB et petits vaisseaux**
  - Réel atout – Indication à privilégier ?
  - Données scientifiques robustes
- **DCB et gros vaisseaux**
  - Alternative envisageable dans certains cas
- **DCB et bifurcations**
  - Indication prometteuse ?
  - Manque de données

