

**Biodegradable-polymer Infinnium paclitaxel-eluting
and Supralimus sirolimus-eluting stents reduce
repeat intervention in complex cases:**

**Findings from the Percutaneous *INT*ervention with
biodegradable-polymer based paclitaxel-eluting,
sirolimus-eluting, or bare stents for the treatment of
de novo coronary lesions – PAINT trial**

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Barbosa, *on behalf of the PAINT Trial investigators***

PAINT Study Design

280 patients treated with coronary stenting for:

- De novo coronary lesion in a native vessel
- Vessel size 2.5-3.5 mm
- Single stent per lesion up to 29-mm stent length

Randomization (1:2:2)

Matrix BMS
(n=59 pts)

Infinnium PES
(n=113 pts)

Supralimus SES
(n=108 pts)

9-month angiographic follow-up (95%) – independent core lab

60-month clinical follow-up

← Clopidogrel for 1 year

Primary endpoint:

To compare the in-stent luminal loss of the 2 DES (Infinium or Supralimus) with the control BMS

Pedro A. Lemos InCor	105 pts
Bruno Moulin HUCAM	39 pts
Marco Perin Hosp. Sta Marcelina	32 pts
Ludmilla de Oliveira Natal Hospital Center	23 pts
Valter C. Lima UNIFESP	18 pts
Antonio A. G. Lima HU Walter Cantidio	15 pts
J. Airton de Arruda Intercath Meridional	19 pts
Paulo R. A. Caramori PUCRS	14 pts
Cesar R. Medeiros Rede D'Or de Hospitais	9 pts
Mauricio R. Barbosa Biocor	4 pts
Fabio S. Brito Jr. Hospital São Camilo	2 pts

Multicenter in Brazil Enrollment by Center



PAINT complex - Study Design

185 patients included in the PAINT trial with at least one:

- Diabetes
- Small vessel (stent diameter 2.5 mm)
- Long lesion (stent length > 23 mm)

Randomization (1:2:2)

Matrix BMS
(n=38 pts)

Infinnium PES
(n=77 pts)

Supralimus SES
(n=70 pts)

9-month angiographic follow-up (95%) – independent core lab

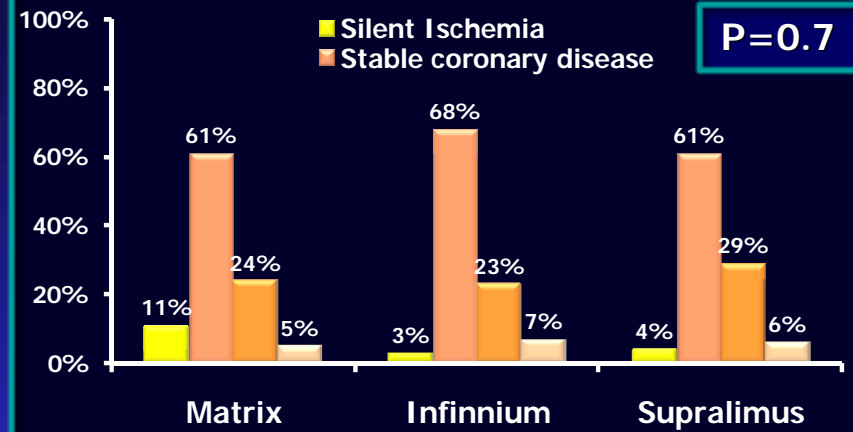
60-month clinical follow-up

← Clopidogrel for 1 year

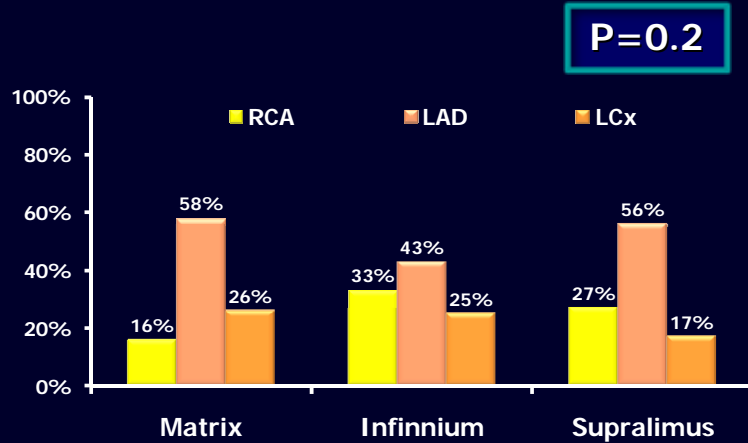
Baseline Characteristics

	Matrix (n=38 pts)	Infinnium (n=77 pts)	Supralimus (n=70 pts)	P
Age, y	57±10	61±9	60±10	0.3
Men	63	58	64	0.8
Hypetension	92	82	90	0.2
Diabetes	40	42	53	0.3
Previous MI	34	23	36	0.2
Previous PCI	21	16	19	0.8
Previous CABG	3	7	9	0.5
Multivessel disease	53	38	40	0.3

Clinical Presentation



Treated Vessel



9-month QCA

	Matrix (n=38 pts)	Infinnium (n=77pts)	Supralimus (n=70 pts)	P-value DES vs. BMS
<u>In-stent</u>				
9-m MLD, mm*	1.38±0.64	↓ 1.90±0.54	↓ 2.12±0.47	<0.01
9-m late loss, mm*	0.98±0.49	↓ 0.52±0.45	↓ 0.33±0.36	<0.01
9-m binary resten.	30.6	↓ 9.6	↓ 4.5	<0.01
<u>In-segment</u>				
9-m MLD, mm*	1.34±0.61	↓ 1.80±0.50	↓ 1.96±0.46	<0.01
9-m late loss, mm*	0.73±0.54	↓ 0.35±0.44	↓ 0.16±0.36	<0.01
9-m binary resten.	30.6	↓ 9.6	↓ 4.5	<0.01

*p<0.05 para Infinnium vs. Supralimus

Clinical outcomes @10 months

	Matrix <i>(n=38 pts)</i>	Infinnium <i>(n=77 pts)</i>	Supralimus <i>(n=70 pts)</i>	p
Cardiac death	0	0	1.4	0.4
Myocardial infarction	5.3	5.2	7.3	0.9
Target lesion revasc	10.8	4.6	5.0	0.01
Target vessel revasc	14.2	4.6	6.6	0.02
Any event	16.9	9.2	9.0	0.2

Conclusions I

Compared to bare stents, implantation of Infinnium paclitaxel- and Supralimus sirolimus-eluting stents in complex patients resulted in:

- **Significantly lower angiographic neointimal hyperplasia that led to a significant reduction in the need for subsequent revascularization**
- **Similar rates of death, myocardial infarction, and stent thrombosis at 10-month follow-up**

Conclusions II

The head-to-head comparison between Infinnium and Supralimus, which use the same platform and polymeric coating, permitted to explore the isolate effect of the drugs sirolimus and paclitaxel:

- The sirolimus stent was associated with a significantly larger NIH inhibition than paclitaxel
- However, the angiographic superiority of the sirolimus-stent was not translated into better clinical outcomes, compared to paclitaxel:
 - both sirolimus and paclitaxel stents were associated with a ~5% TLR rate and a MACE rate ~9% at 10 months