A Novel Approach to Coronary Bifurcation Disease

Advanced Bifurcations Systems Mother-Daughter Platform for Complete and Provisional Bifurcation Stenting

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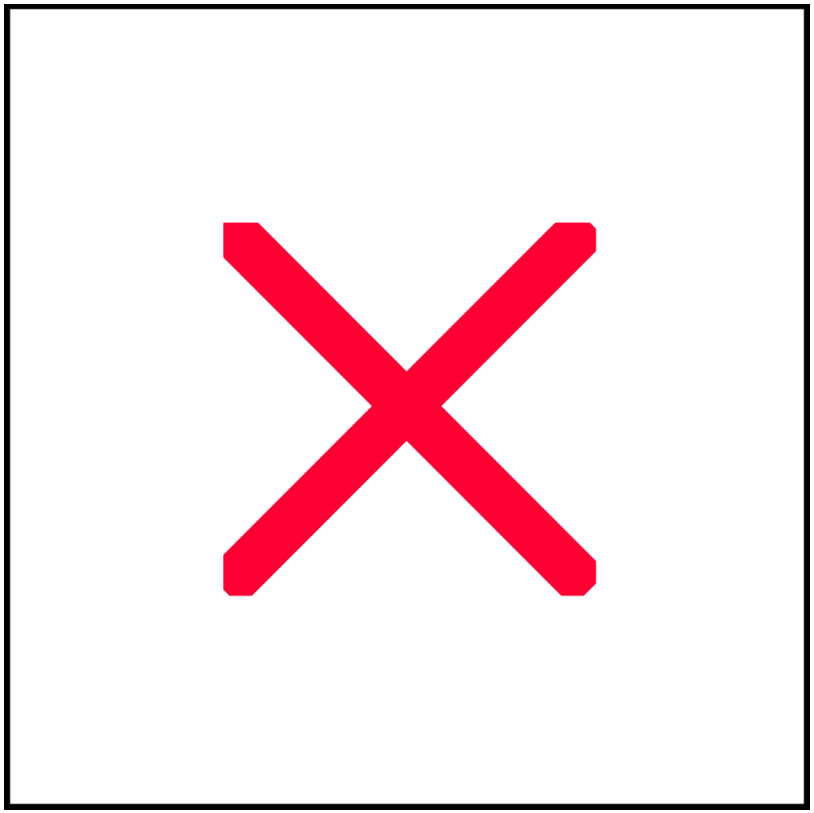
Shortcomings of current technologies

- Side-branch access is not guaranteed (Crush, Culotte, Provisional…)
- Inadequate tissue coverage (provisional T)
- Excessive stent coverage / thrombosis / tissue injury (Crush, Culotte)
- Mal-orientation / apposition of main vessel stent (Side-hole stents)
- Wire-wrap (double-wire systems)

ABS Mother-Daughter™ Platform

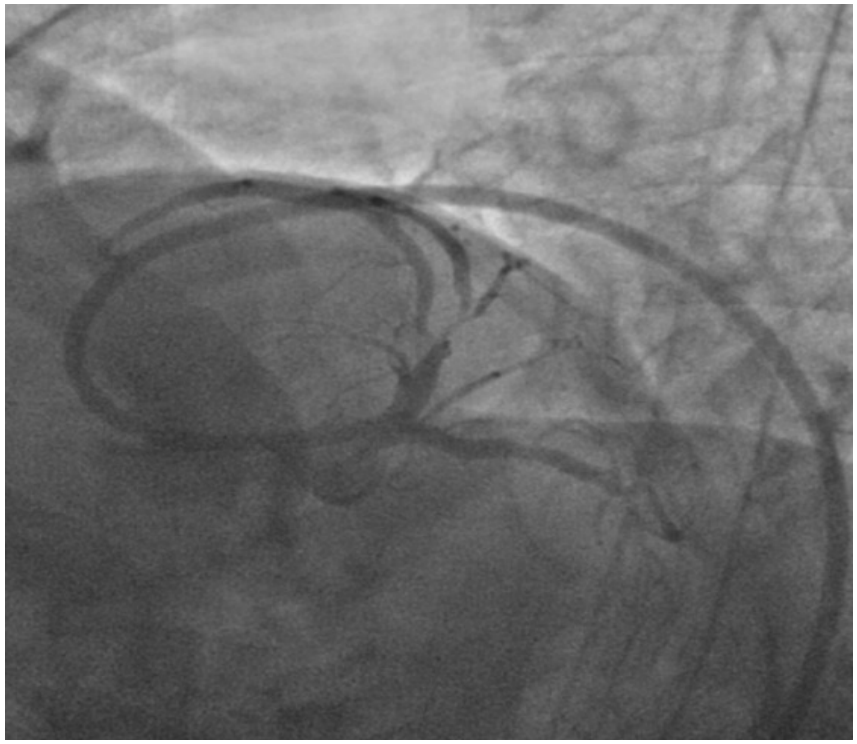
- What's ideal: Delivery of a stent, scaffolding any bifurcation regardless of the variables (angles, sizes, plaque location, etc.).

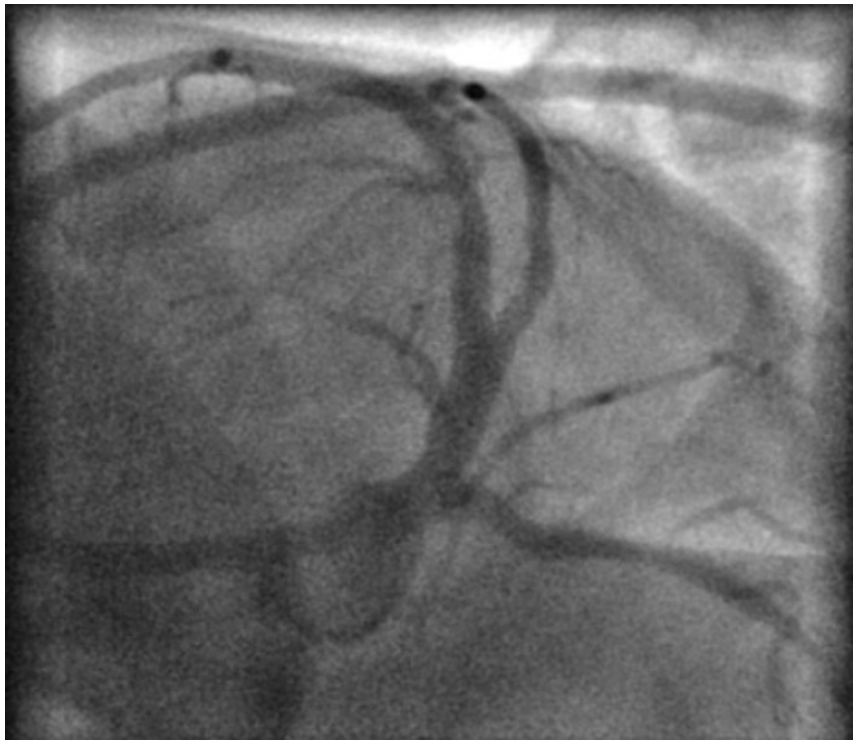
LCx-OM



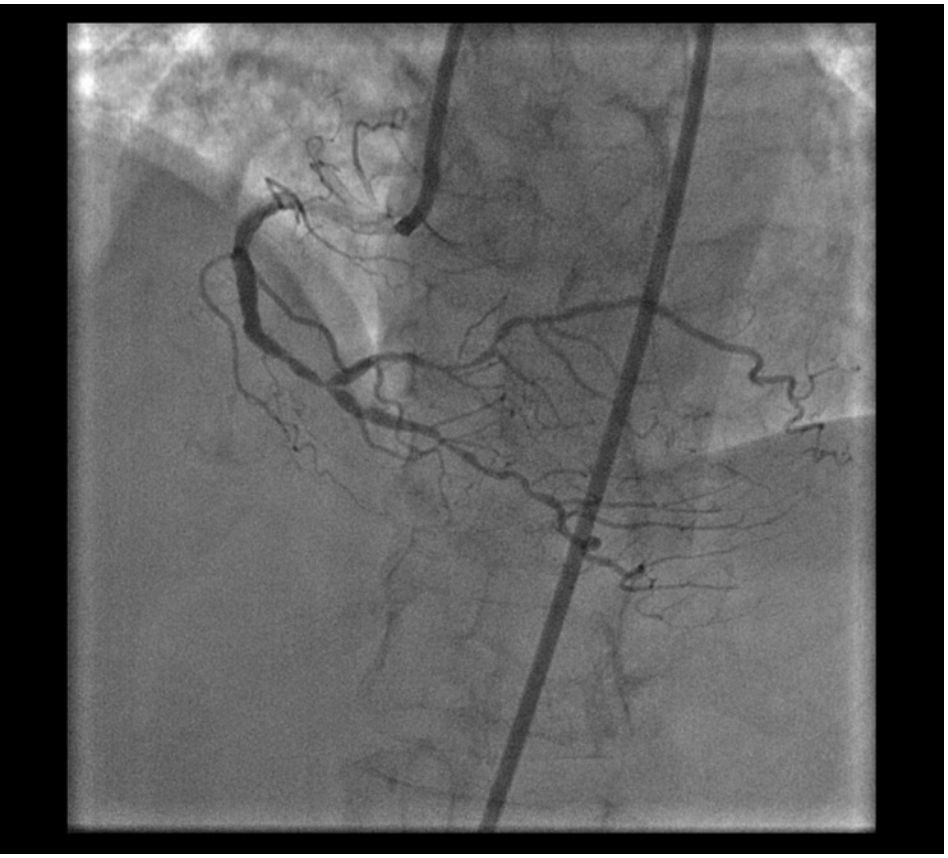
LCx-OM

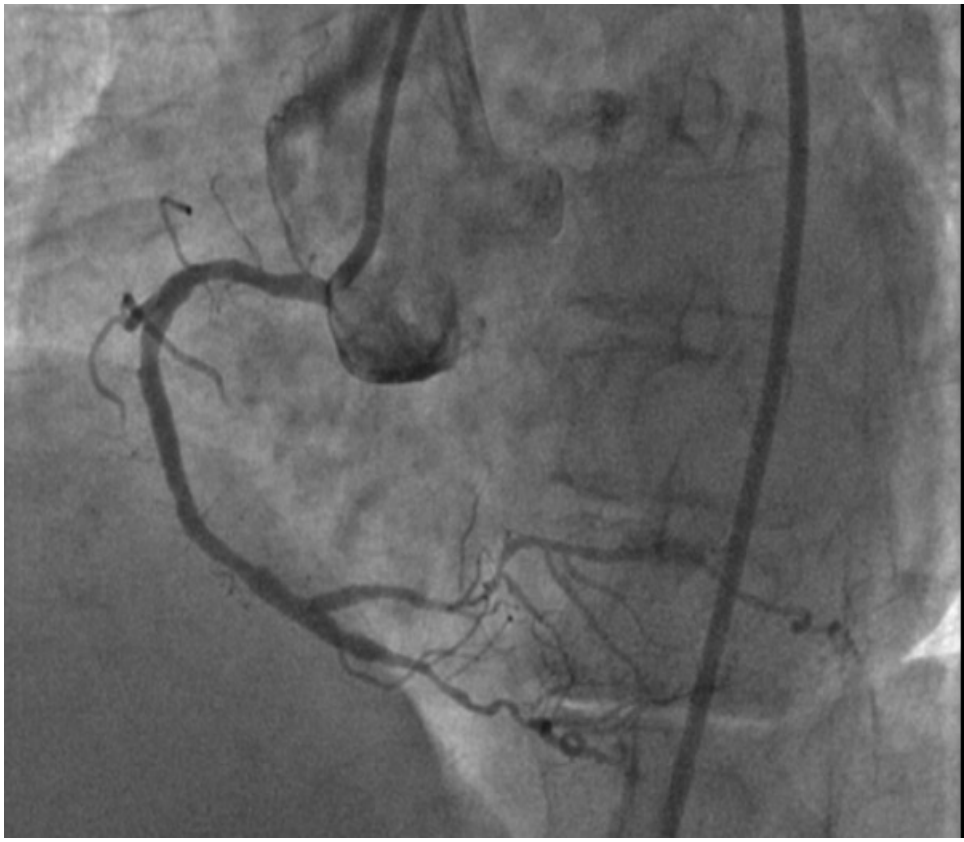
Shallow angle proximal LAD-Diagonal



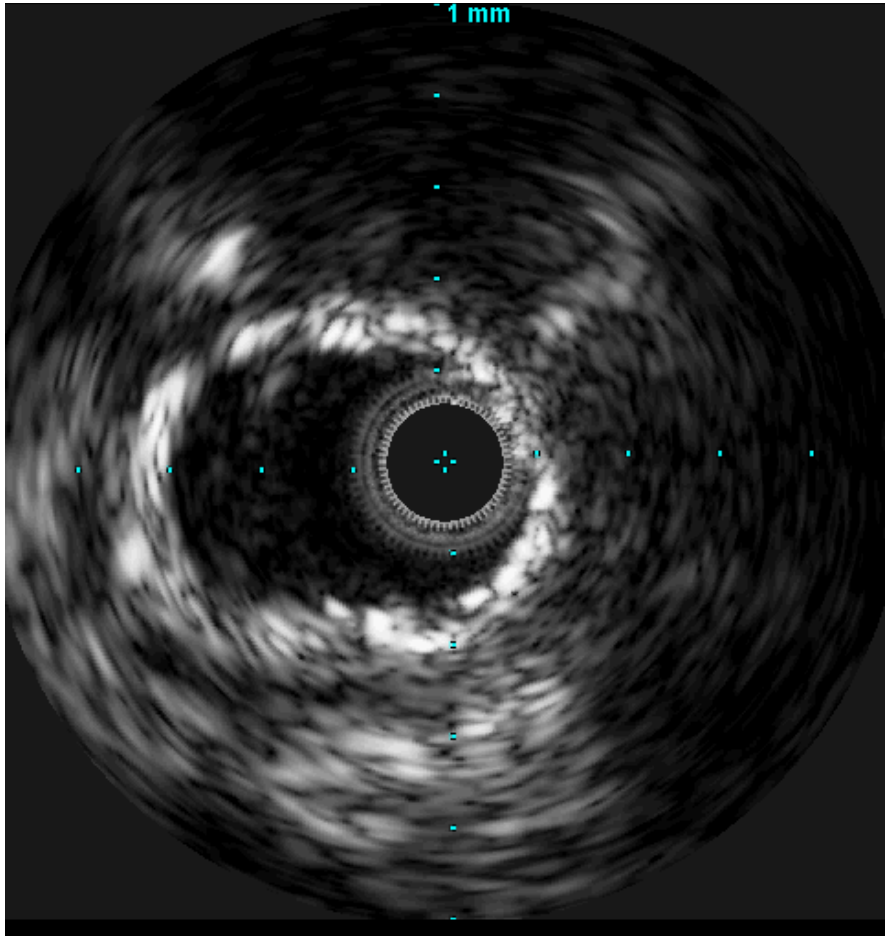


Tortuous distal RCA, PDA-PL





Ovalized segment of the stent just above the carina



Initial Results

- 10 patients - 3 centers worldwide (Sau Paulo, Brazil; Ahmedabad, India; Caracas, Venezuela)
- 7 consecutive successful bifurcation stent (MD-Bi) implantations
- 3 provisional systems (MD-P)

Preliminary Results

	MD-Bi (Full stenting)	MD-P (Provisional)
	9 Month F/U	3 Month F/U
†TVR	0	0
††MACE	0	0
Angiographic re-stenosis*:		
Mother branch	0	-
Daughter branch	2/7	-
Carina	0	-

† Target vessel re-vascularization

†† Major adverse coronary event

* 5/7 have had follow up angiography.

Conclusion

- The ABS bifurcation stenting system is a novel platform designed to reproducibly permit stenting in bifurcation lesions regardless of branch angulation or plaque location, in a short and simple procedure.

Conclusion

- This first-in-human implant study provides preliminary evidence of feasibility and short-term efficacy. Additional long-term and larger scale studies are needed to further validate this unique technology.

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Thank you

Initial Results – Animal Studies

- **Coronary Bifurcation Lesions Treated with the Novel Advanced Bifurcation SystemsTM Dedicated Stent: Animal Experience**
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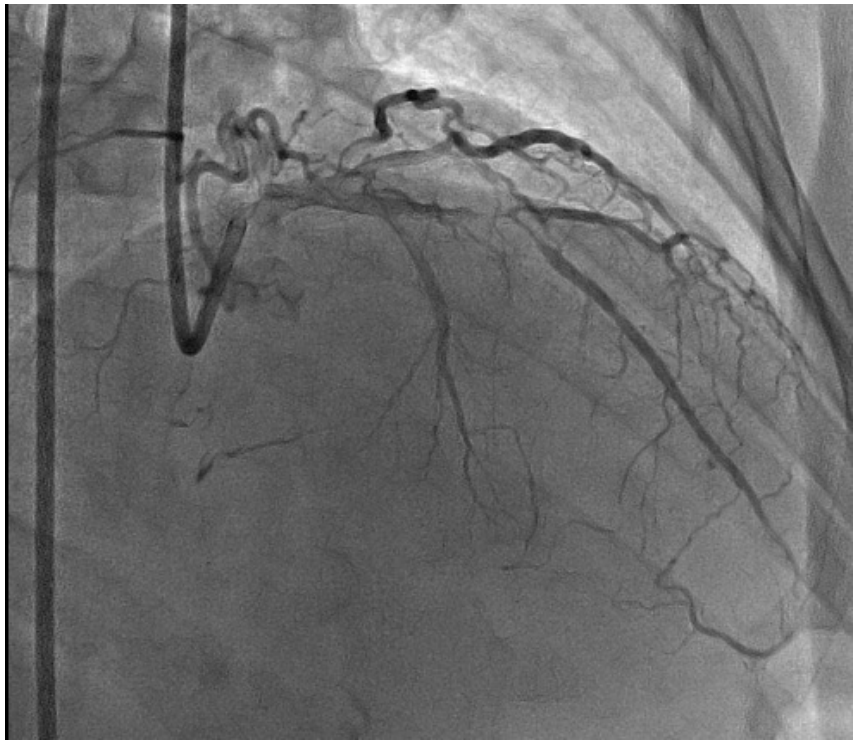
Mehran Khorsandi[1], Henry Bourang[2], Michael Shenoda[1], Sepehr Fariabi[2], Rajendra Makkar[1], Saibal Kar[1]
[1]Cedars-Sinai, Los Angeles, CA;[2]Advanced Bifurcation Systems, Los Angeles, CA

Initial Results – Human Abstract

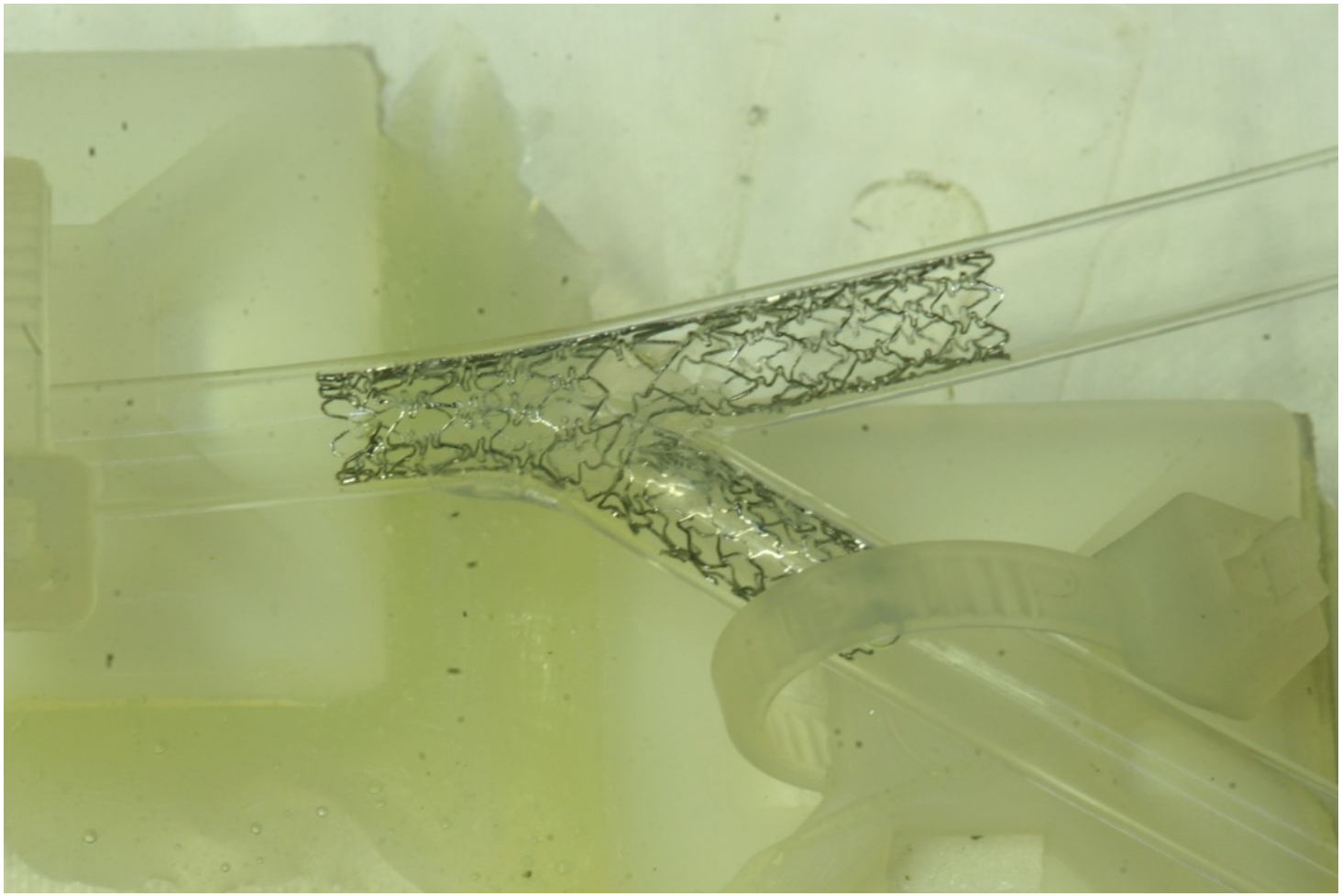
- **Coronary Bifurcation Lesions Treated with the Novel Advanced Bifurcation SystemsTM Dedicated Stent: Preliminary Results of the Prospective, Multicenter First-in-Man Experience**

- Mehran Khorsandi[1], Alex Abizaid[2], Sameer Dani[3], Michael Shenoda[1], Henry Bourang[1], Ricardo Costa[2], Saibal Kar[1], Rajendra Makkar[1]
[1]Cedars-Sinai, Los Angeles, CA;[2]Instituto Dante Pazzanese de Cardiologia, Sao Paulo, Brazil[3]Lifecare Institute of Life Sciences and Research, Ahmedabad, India

Provisional LAD-Diagonal, MD-P



Bench Testing



Porcine Heart with 3 bifurcation stents

Baseline Angio LCx-OM

System Advancement

Daughter Catheter Pullback

System Assembly at the Carina

Final Angio