

Advanced Bifurcation Systems

Mother-Daughter Platform

Provisional side-branch and full bifurcation stenting

Mehran J. Khorsandi, MD, FACP, FACC, FSCAI

Stents and delivery balloons designed for non-bifurcation lesions have been used with creative, tedious techniques adapting them for bifurcations as well as possible; however with inherent limitations

(recrossing need, gaps or overlaps, mal-apposition, higher acute failure and restenosis rates compared to non-bifurcation lesions).

ABS Platform

A simple system Designed for the

Left Main and large bifurcations
(2.5 mm and above)



ABS

A simple system designed for the Left Main and large bifurcations

- No wire crossing or recrossing thru stent struts
- No gaps, or overlaps
- No new skill-set required
- Conventional sizing based on Murray's/Finet's law
- Evenly scaffolds all bifurcations with automatic alignment
- Highly deliverable with a low crossing leading edge profile
- Innovative system of stenting also compatible with modern widely used stents



Bifurcating Stent Animation

(Provisional side-branch stenting)



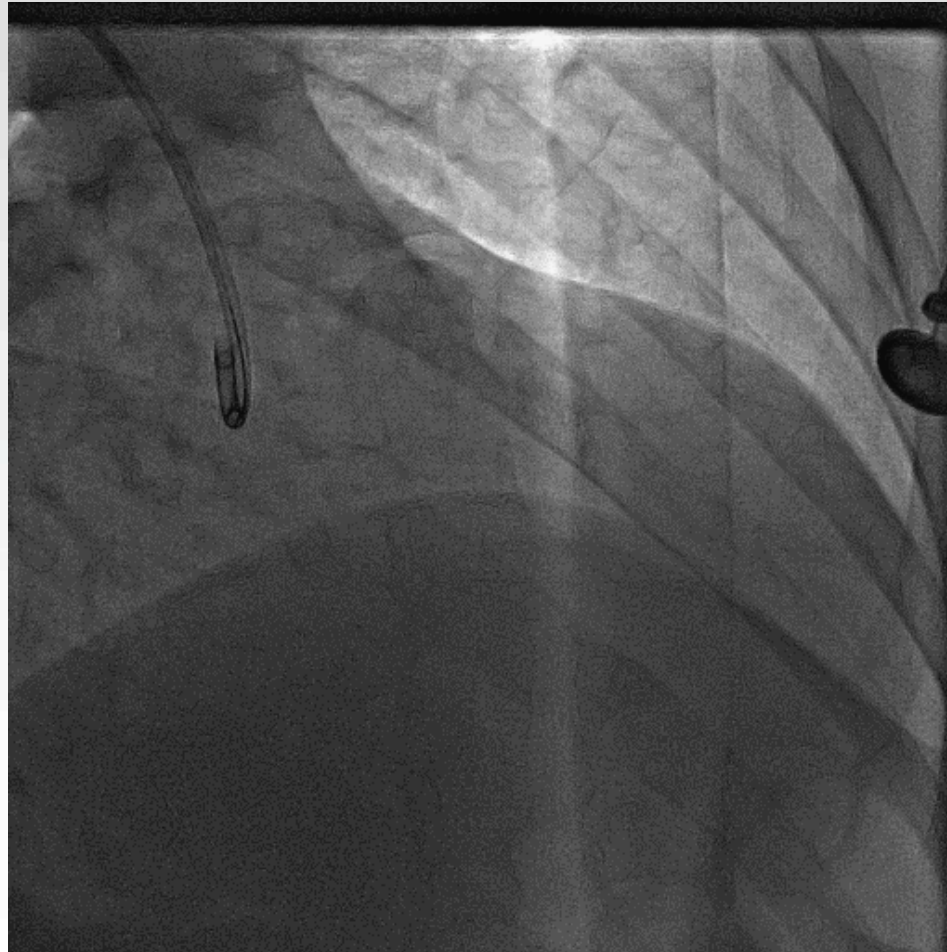
Bifurcating Stent Animation



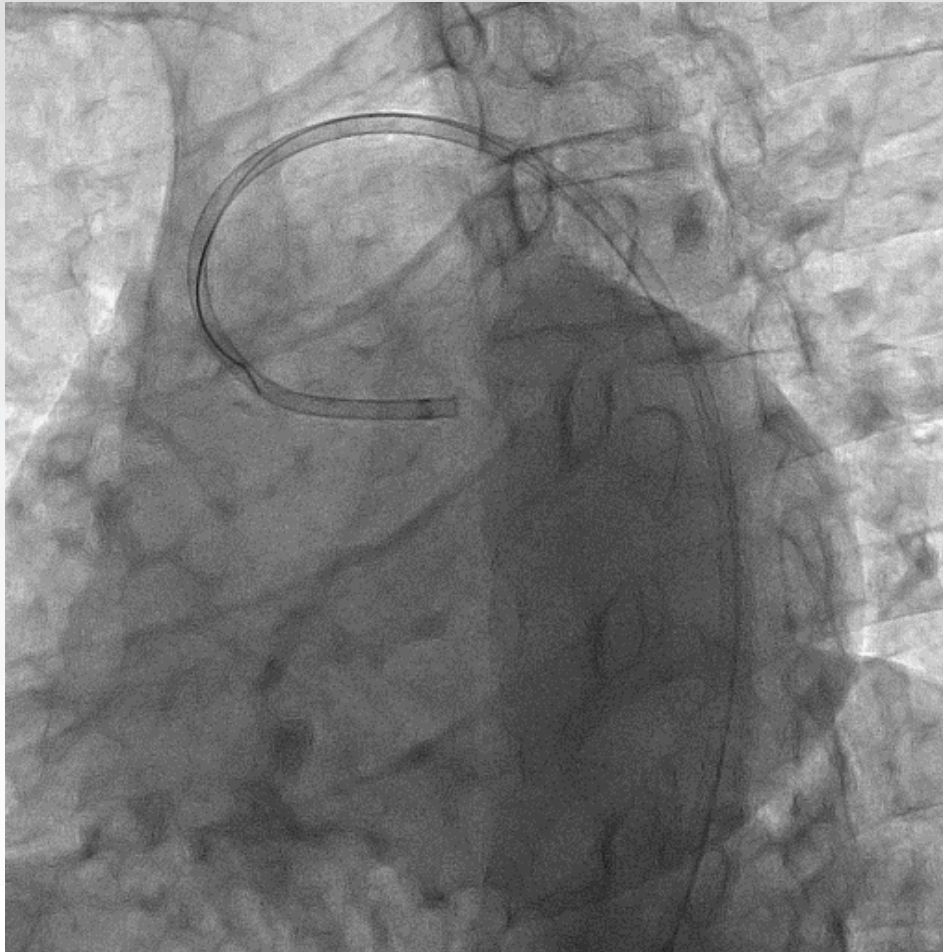
Pig Heart with 3 bifurcating stents



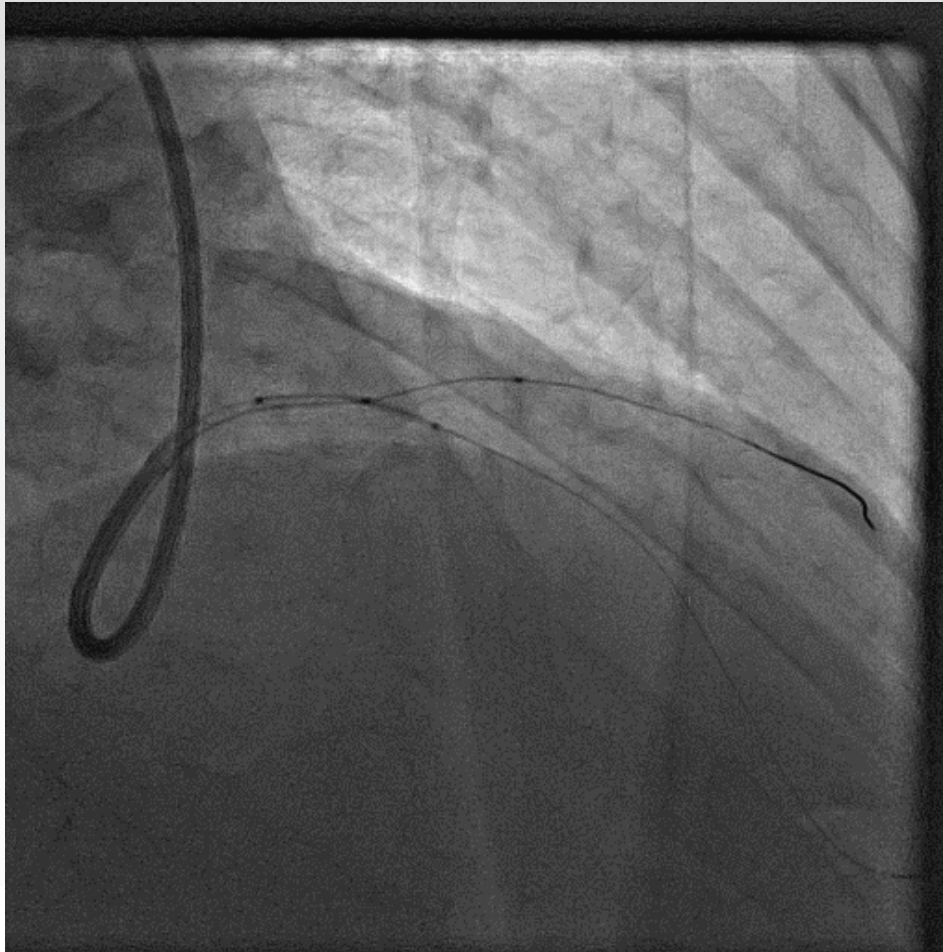
LAD – Diagonal Pre



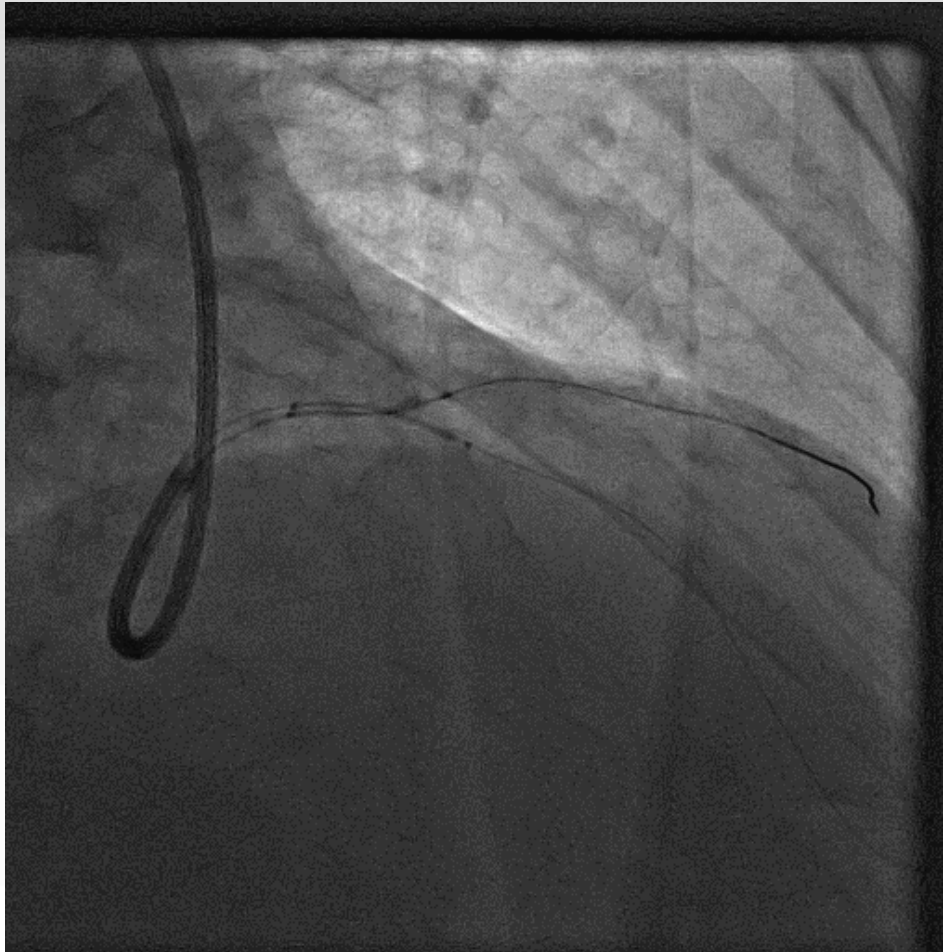
LAO Caudal



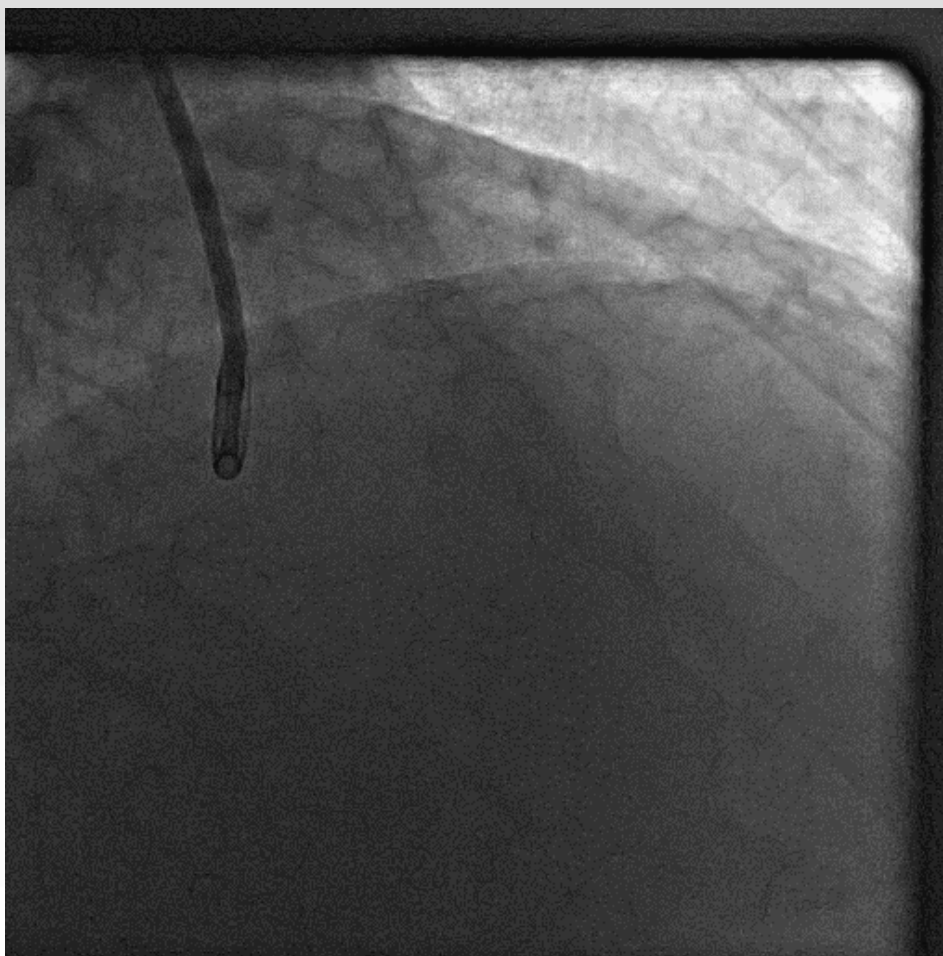
Daughter Balloon Pullback



Daughter Balloon Inflation (first)

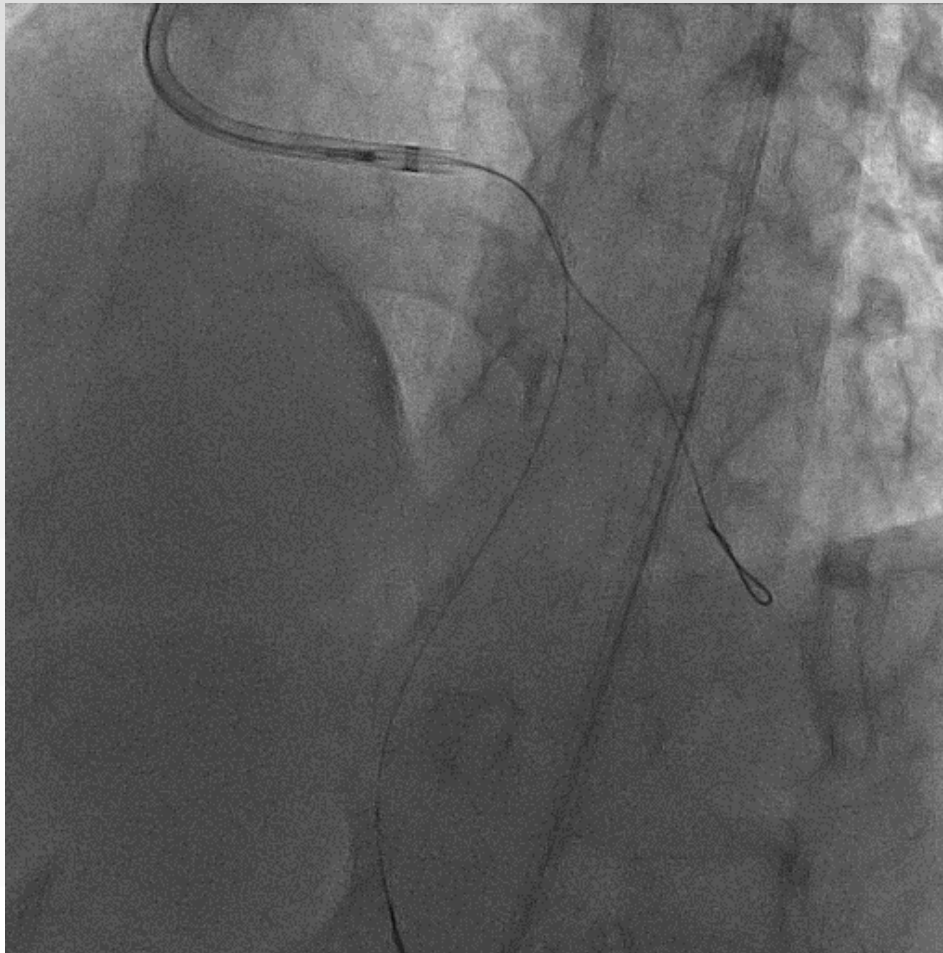


Final Angio



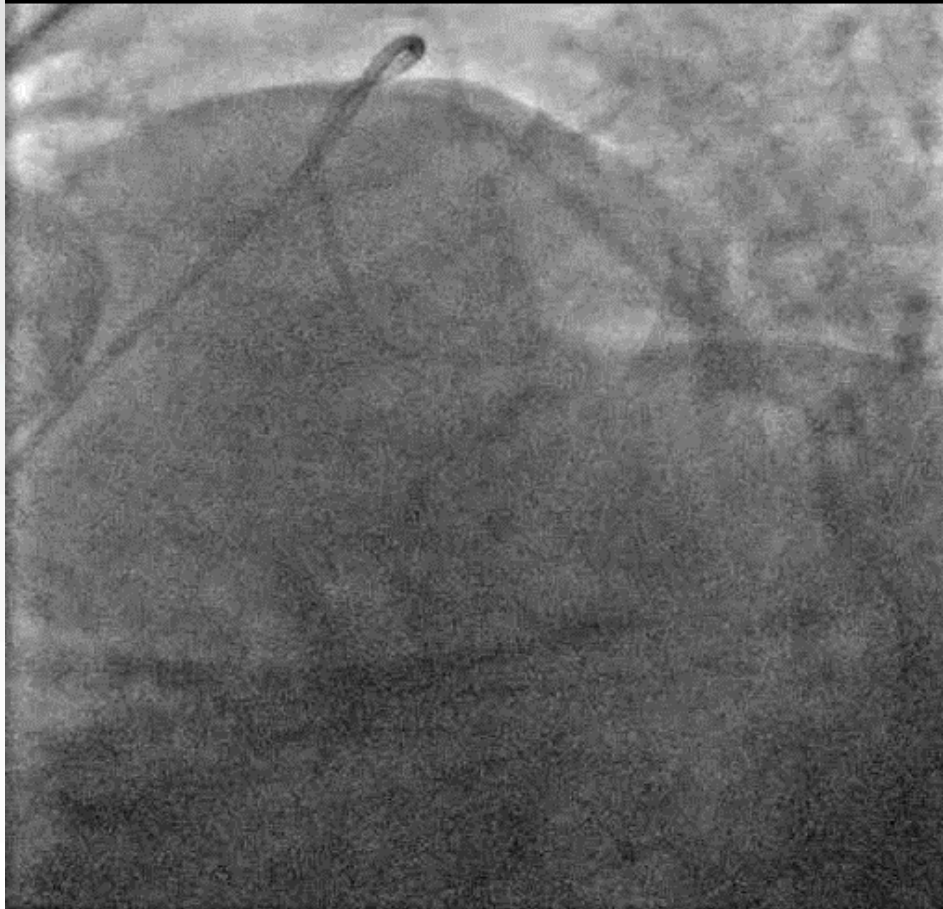
Daughter Vessel IVUS

(note the smooth advancement of the bulky eagle eye in the relatively small diagonal)



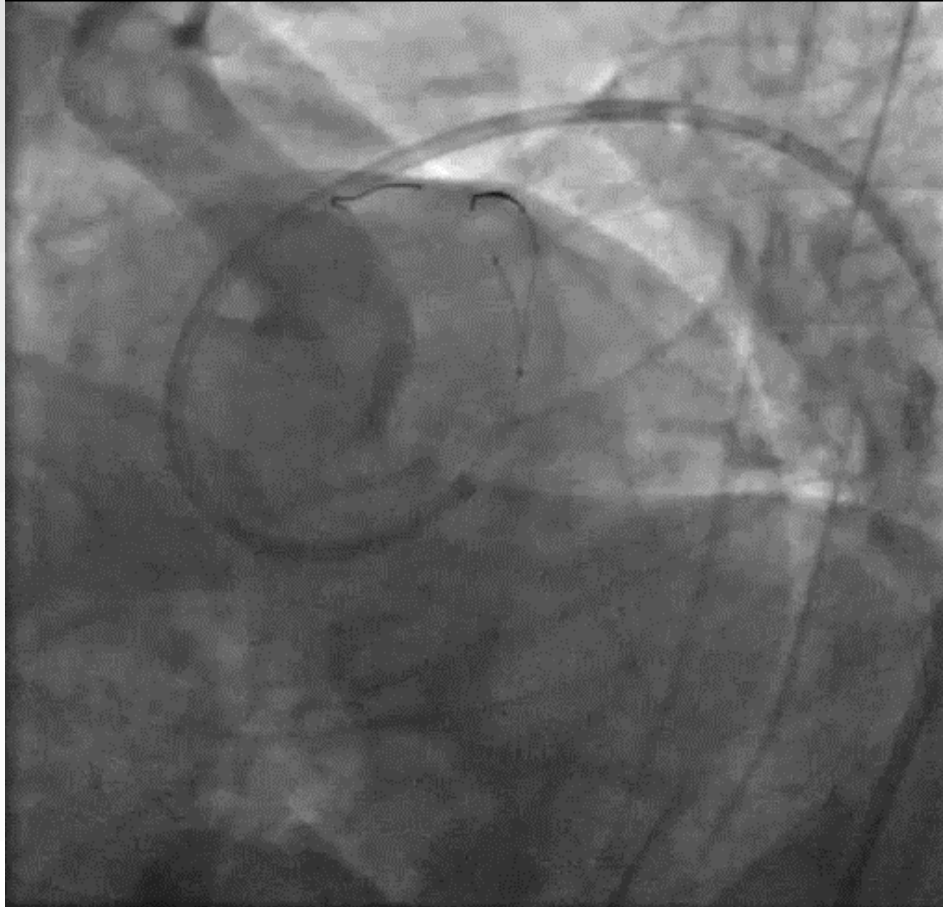
Proximal LAD –Diagonal “widow-maker”

Lossy compression - not intended for diagnosis



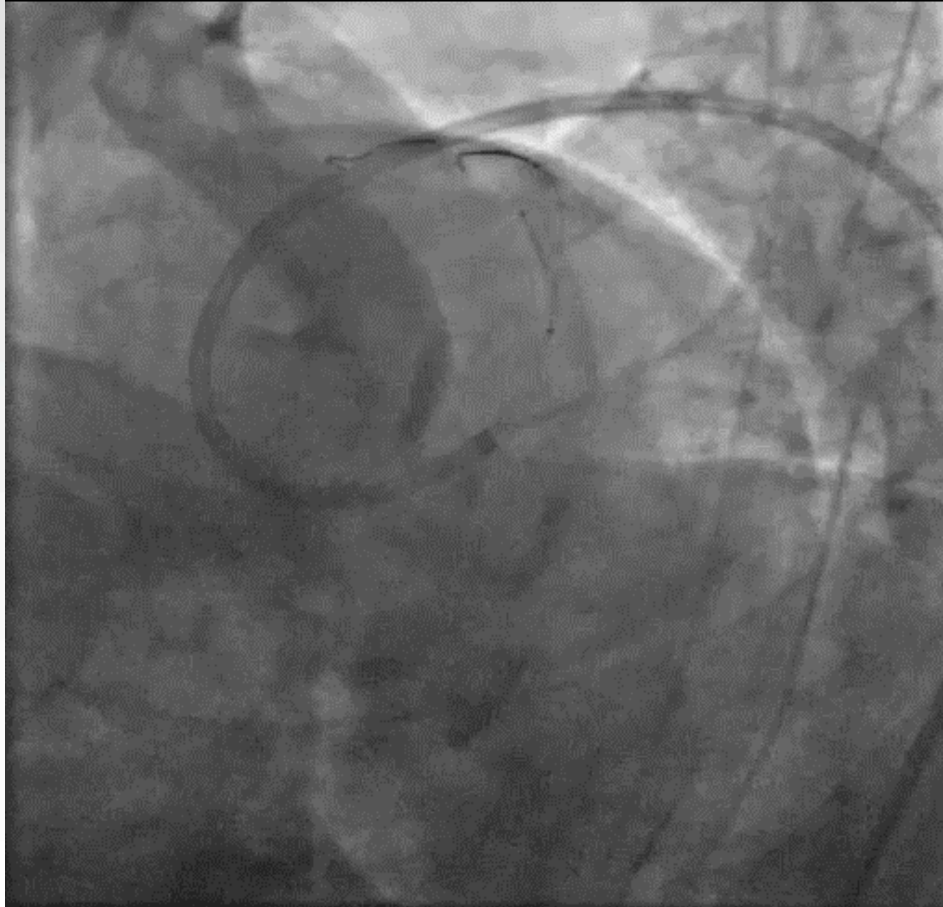
Mother Stent at the Carina

Lossy compression - not intended for diagnosis



Daughter Balloon Pullback

Lossy compression - not intended for diagnosis



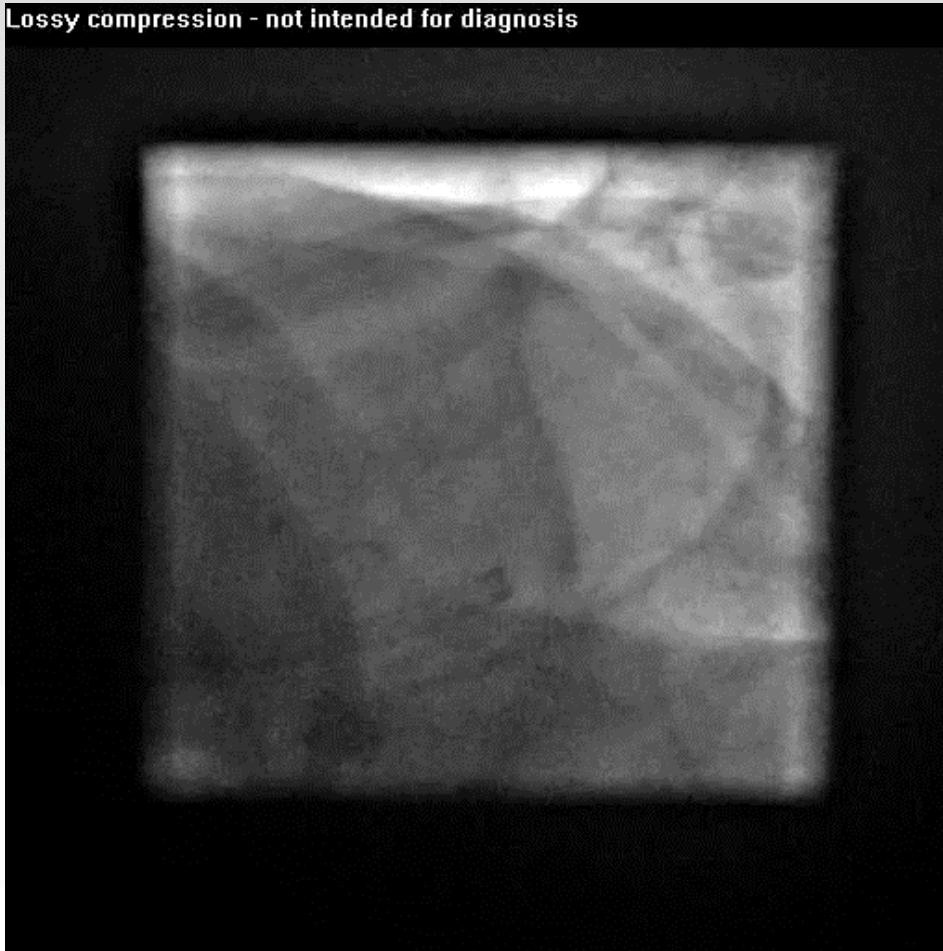
Daughter Balloon Inflation (first)

Lossy compression - not intended for diagnosis



Final Angio

Lossy compression - not intended for diagnosis



PDA Pre and Post

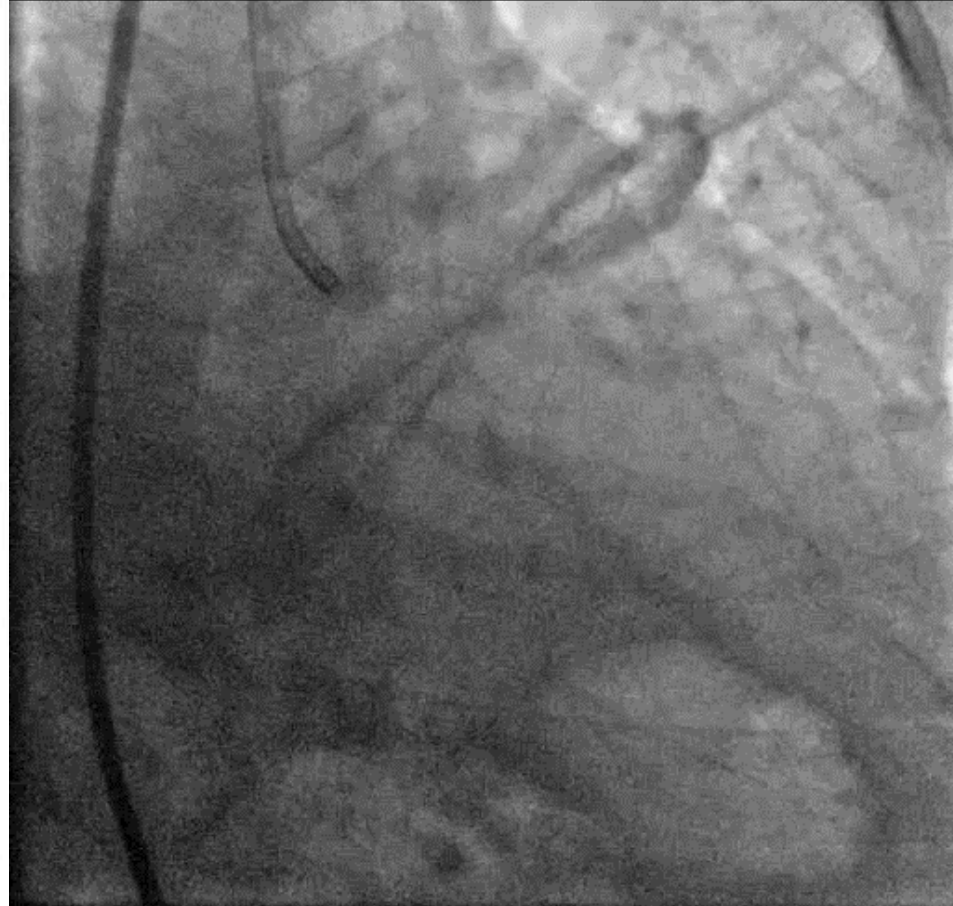


Lossy compression - not intended for diagnosis



LCx-OM Pre-deployment and Post

Lossy compression - not intended for diagnosis



Lossy compression - not intended for diagnosis





Multicenter trial completed

- Sao Paulo, Brazil, Ahmadabad, India, Caracas, Venezuela
- 10 patients, ages 45-71
- 7 patients: 100% successful deployment of all two stent bifurcating stent (MD) implantations
- 3 patients: 100% successful deployment of all side branch access provisional systems (MD-P)

Significant reduction in procedure time

Excellent follow-up results

No target vessel revascularization after 12 months

*Advanced Bifurcation Systems' mother-daughter platform
Mehran Khorsandi, MD; Alex Abizaid, MD; Sameer Dani, MD; Henry Bourang, MD; Ricardo Costa, MD; Saibal Kar, MD; Rajendra Makkar, MD
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- Future investigations are planned to further study and validate the design characteristics

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Thank You