

Xience Skypoint in Bifurcation/Complex lesions

Eun Ho Choo

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Seoul St. Mary's Hospital

The Catholic University of Korea



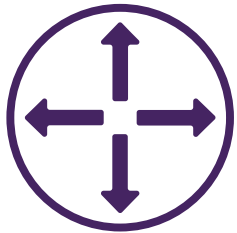
XIENCE™ Design: Continuously improving¹

	2010	2012	2013	2015	2018	2022
Catheter Technology	XIENCE V™ MULTI-LINK VISION™	XIENCE PRIME™	XIENCE XPEDITION™	XIENCE ALPINE™	XIENCE SIERRA™ Improved Crossability¹	XIENCE Skypoint™ Slimmer Catheter Profile³
Balloon	Single Layer Balloon	Single Layer Balloon	Thin, Multilayer Balloon	Thin, Multilayer Balloon	Ultra Thin Single Layer Balloon Reduced Profile ¹	Ultra Thin Single Layer Balloon
Stent Design and Material	MULTI-LINK VISION CoCr	MULTI-LINK 8 CoCr	MULTI-LINK 8 CoCr	MULTI-LINK 8 CoCr	Enhanced Stent Design Smaller Crimped Profile and Larger post-dil expansion ² CoCr Stent	Larger Post-Dilation Expansion – 5.75 mm ⁴ CoCr Stent
Drug/Dosage²	Everolimus 100 µg/cm ²					
Coating	PVDF-HFP Fluoropolymer					

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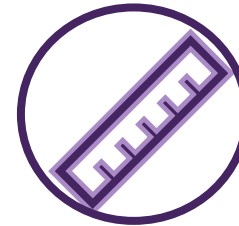
XIENCE Skypoint™ Stent is the latest generation XIENCE™ Stent and has some additional innovation enhancements from XIENCE Sierra™ Stent



**BETTER
EXPANSION**



**EXCELLENT
DELIVERABILITY**

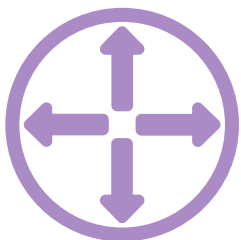


**NEW
48 MM DESIGN**



**MORE VISIBLE
CATHETER HUB**

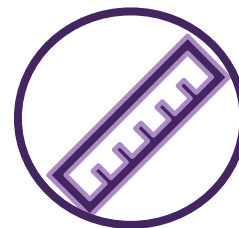
XIENCE Skypoint™ Stent is the latest generation XIENCE™ Stent and has some additional innovation enhancements from XIENCE Sierra™ Stent



**BETTER
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**NEW
48 MM DESIGN**



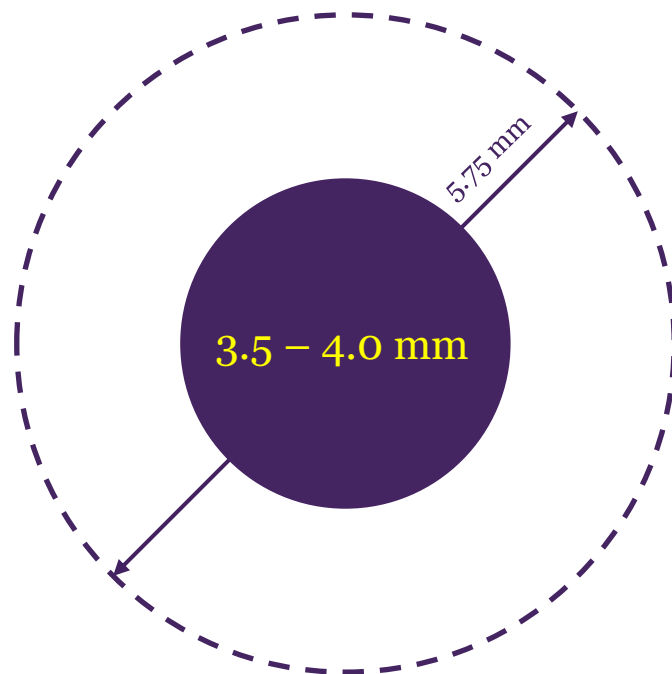
**MORE VISIBLE
CATHETER HUB**

XIENCE Skypoint™ Stent has better maximum expansion up to 5.75 mm helping treat patients with larger vessels



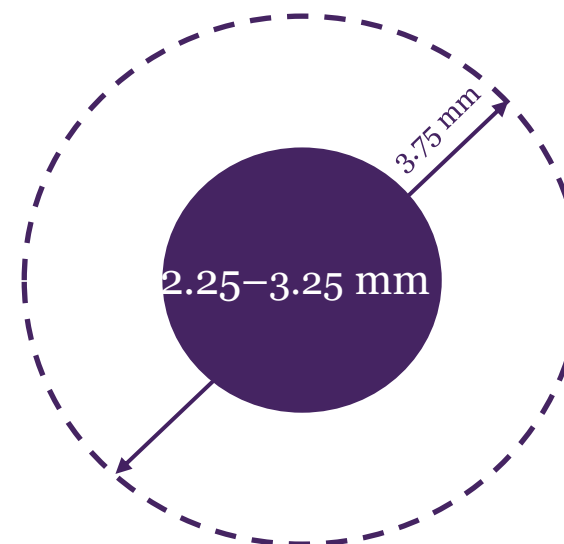
**BETTER
EXPANSION**

MEDIUM STENT
EXPANDS TO 5.75 MM



Medium Stent Design

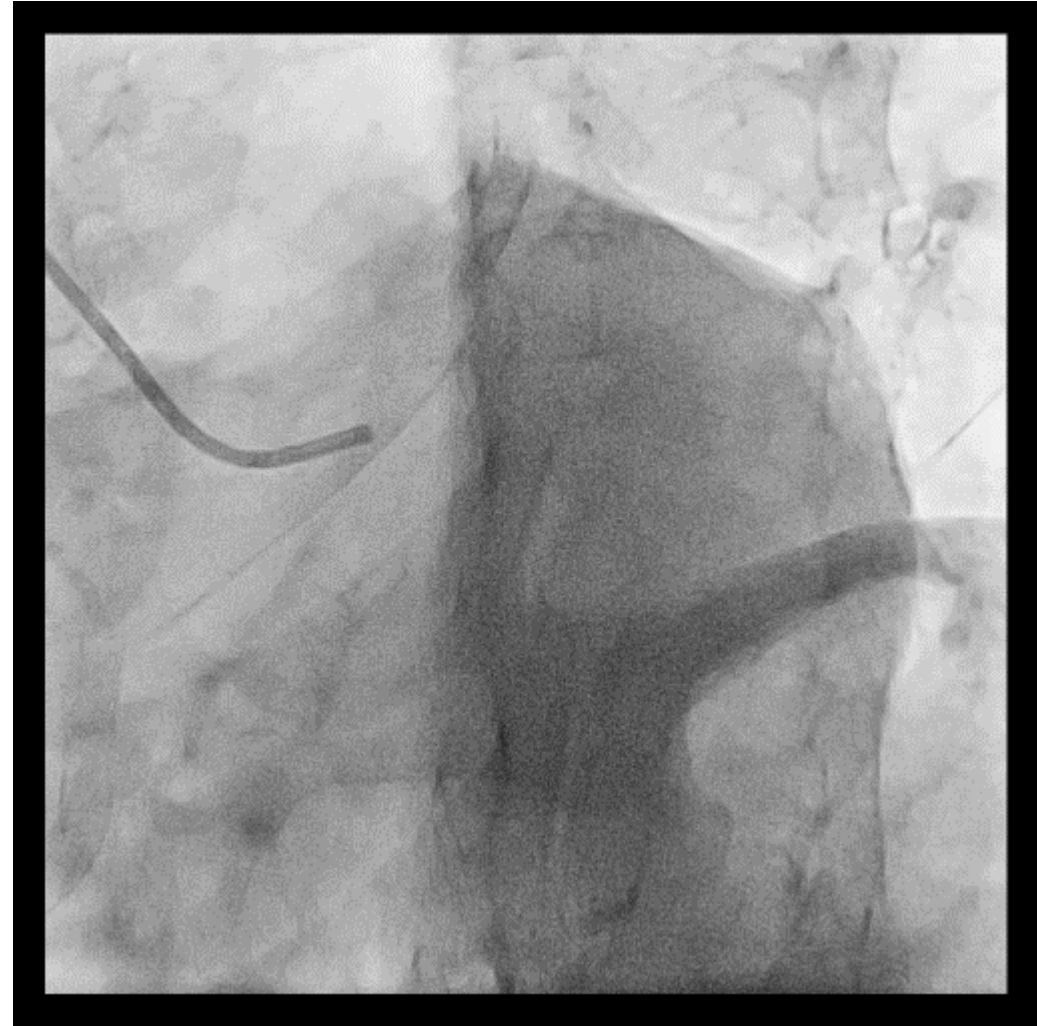
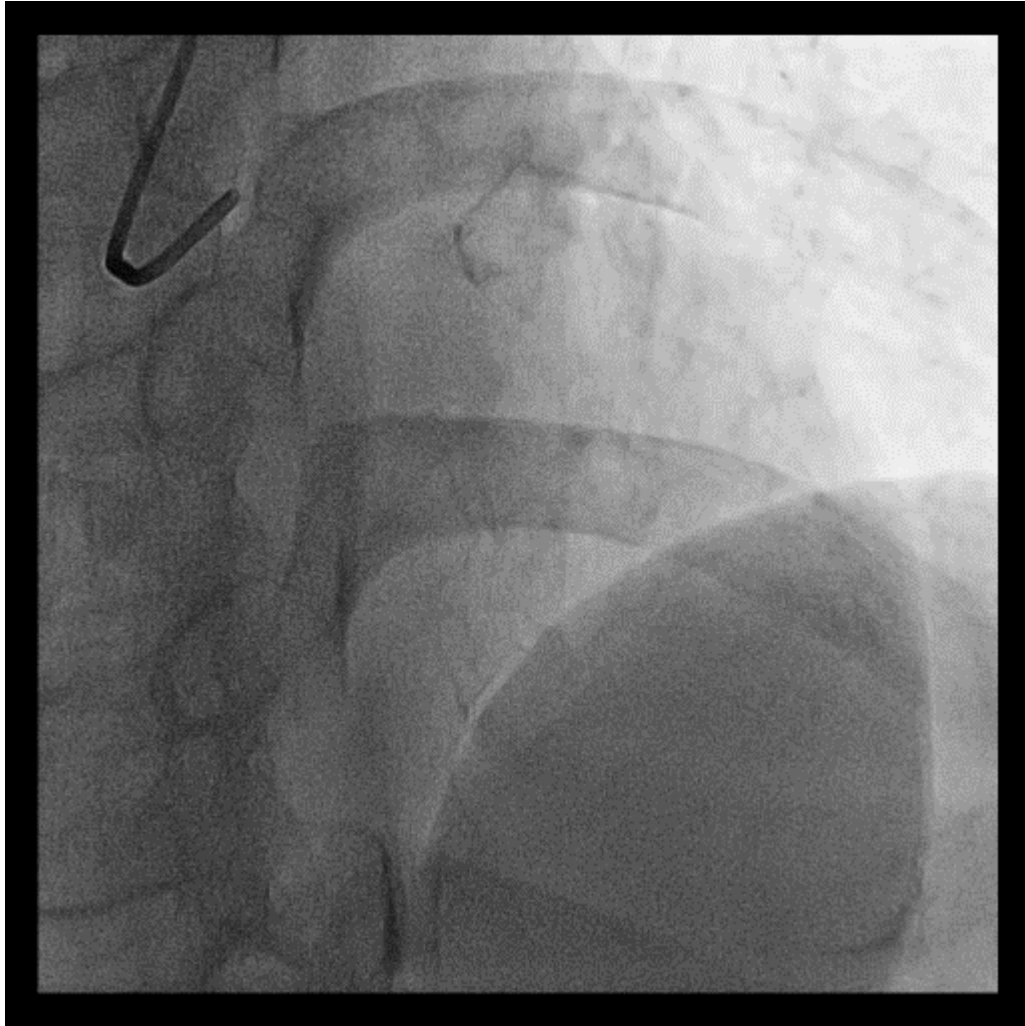
SMALL STENT
EXPANDS TO 3.75 MM

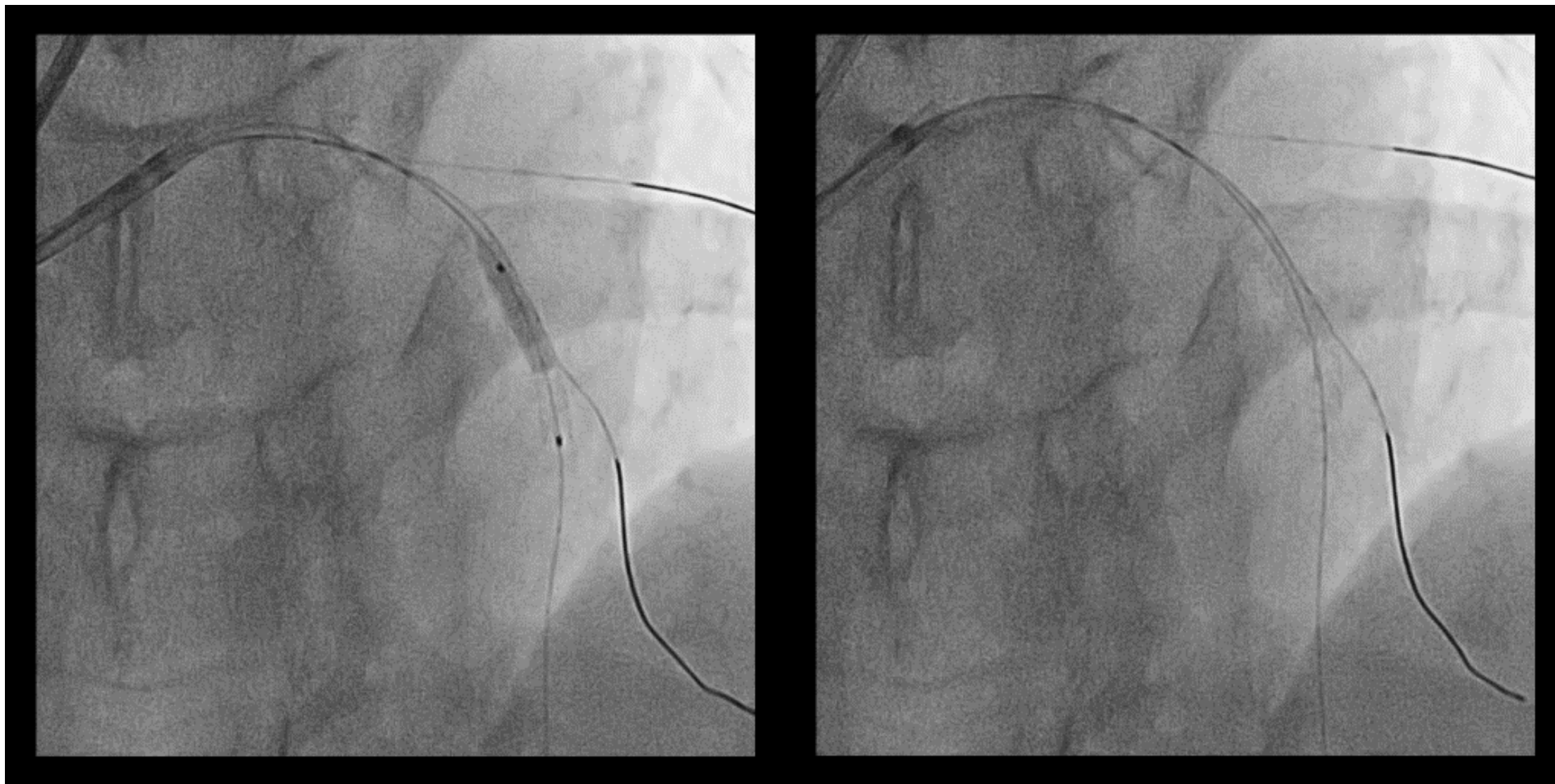


Small Stent Design

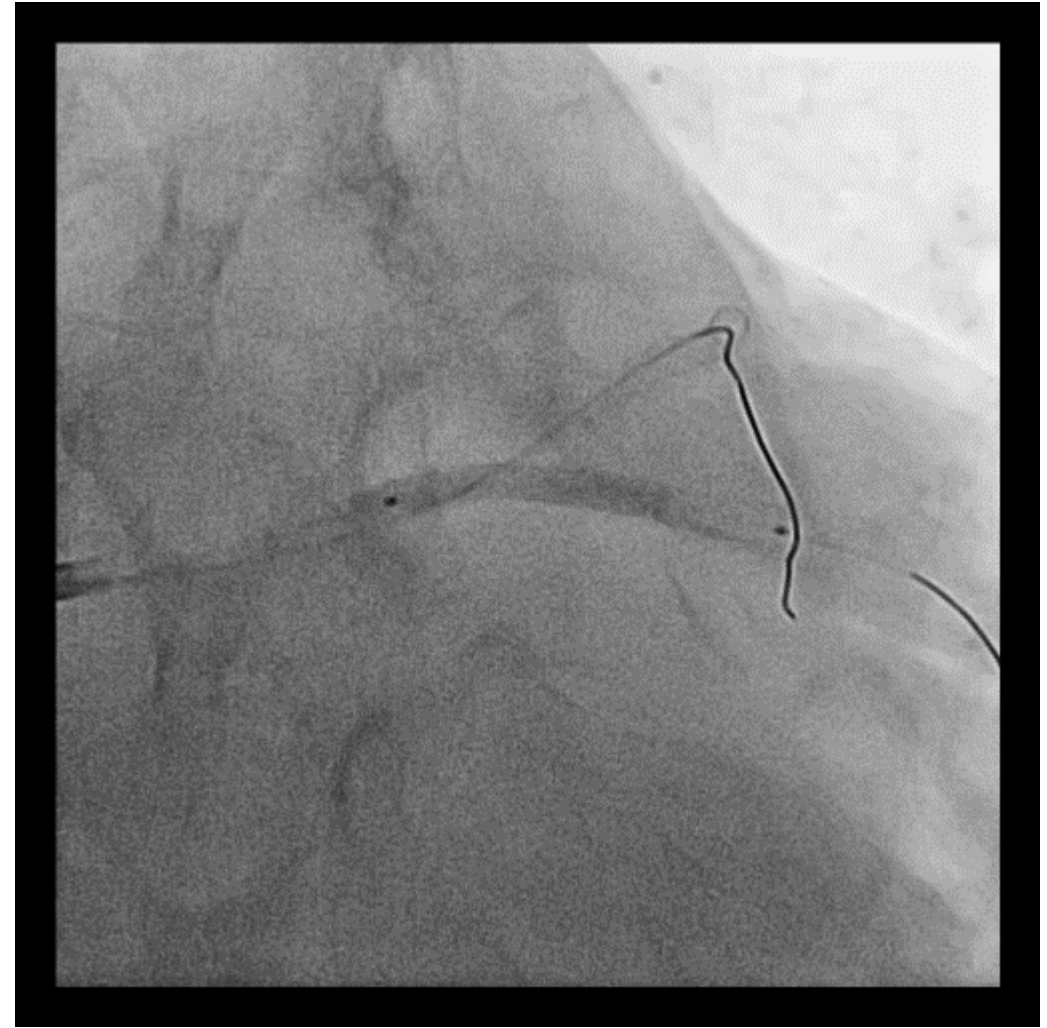
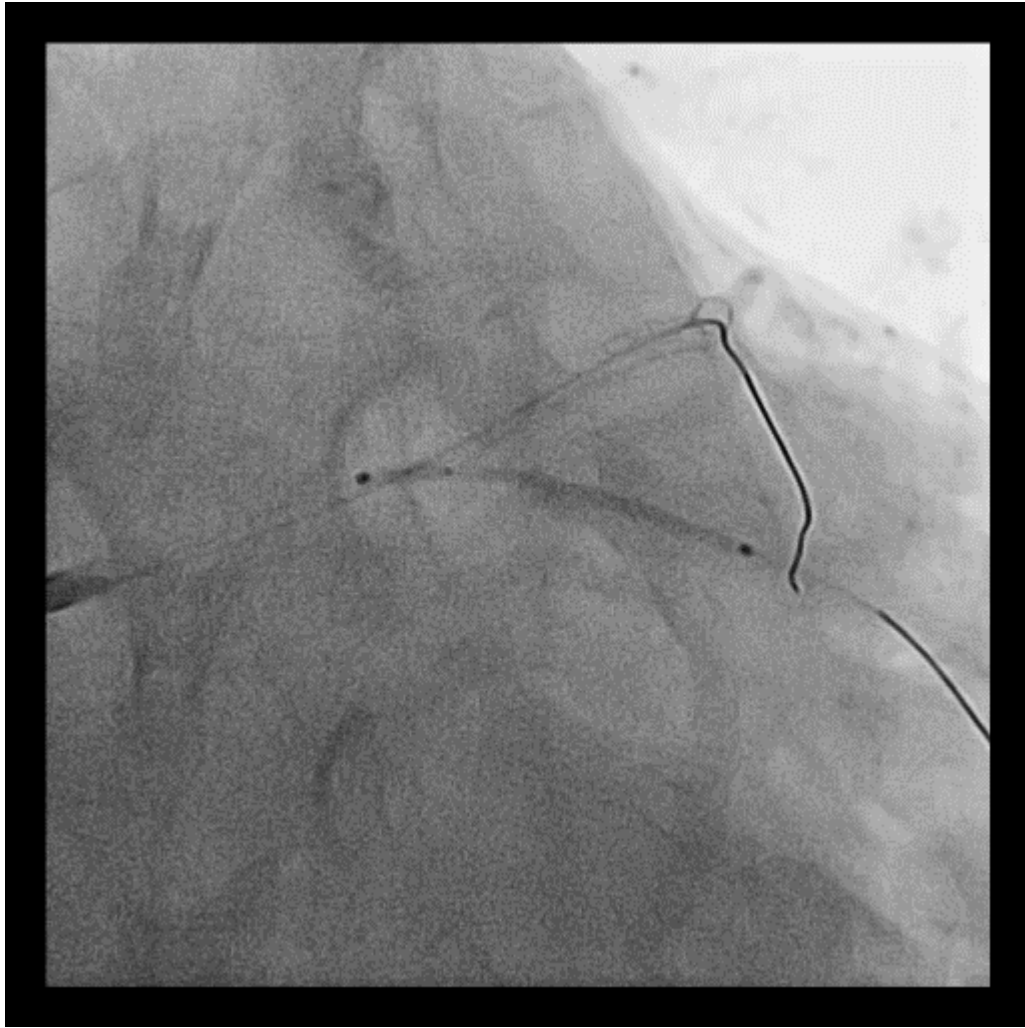
Data on file at Abbott.

61/F, Unstable angina





Xience skypoint 2.75 x 15

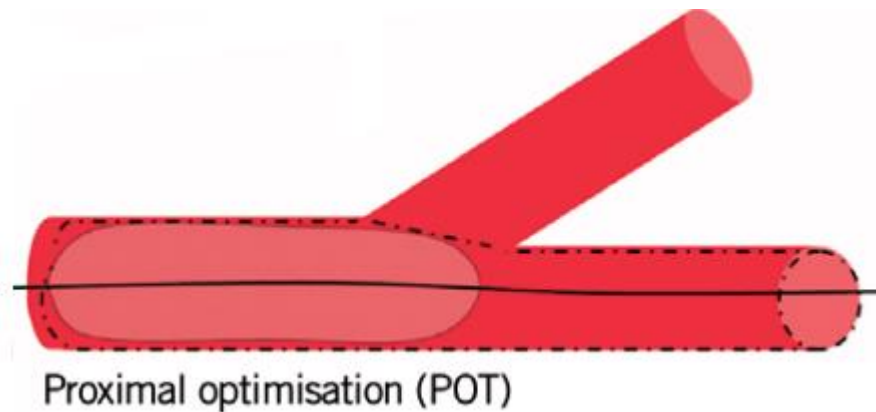
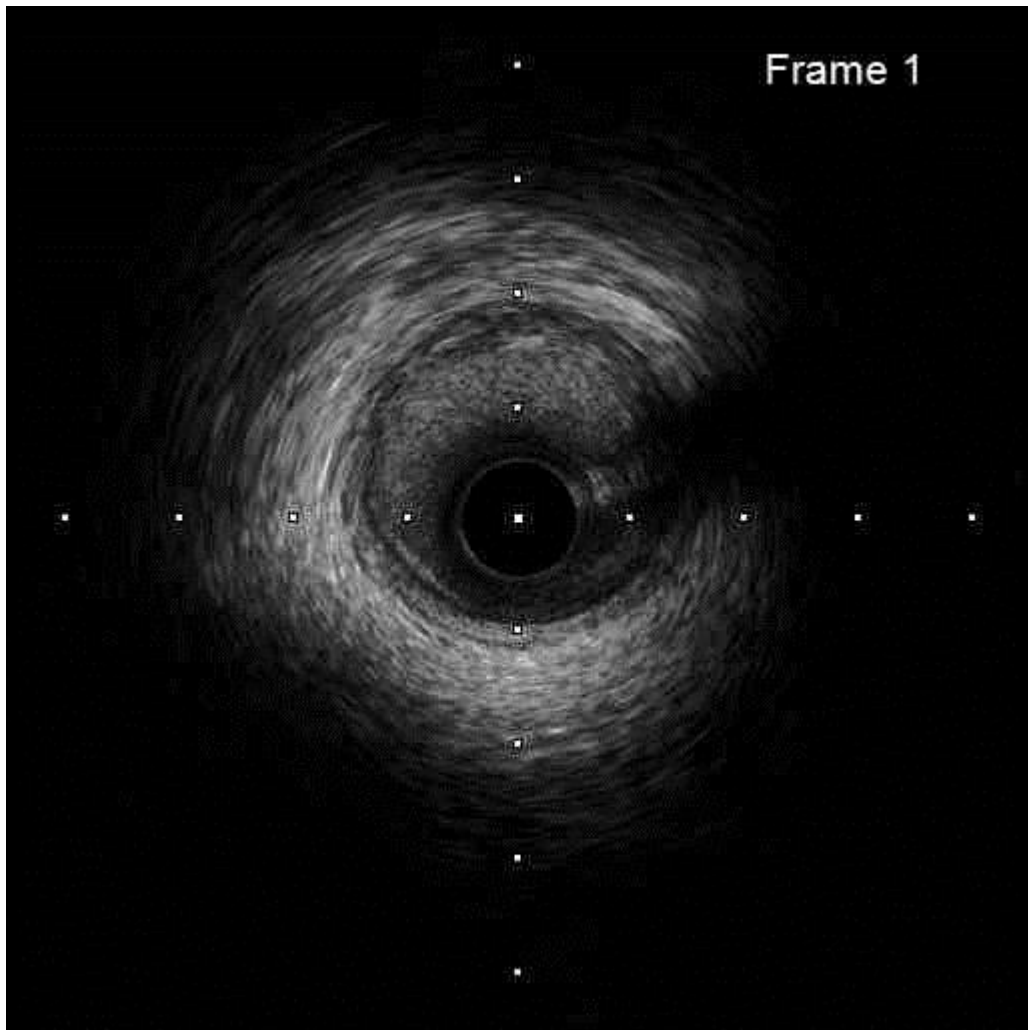


Xience skypoint 2.75 x 28

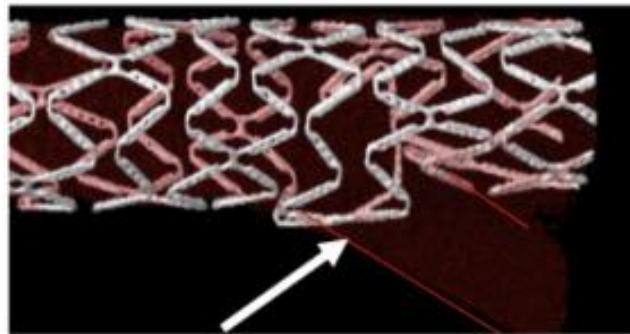
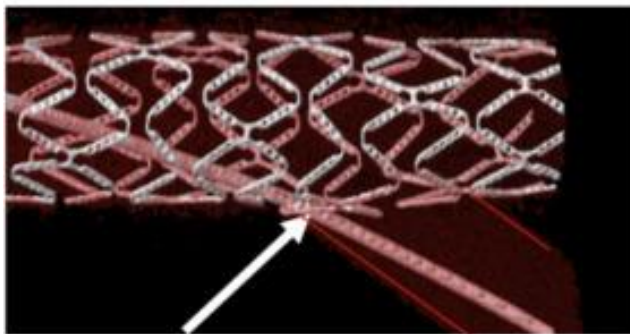


Selecthru NC 3.5x6

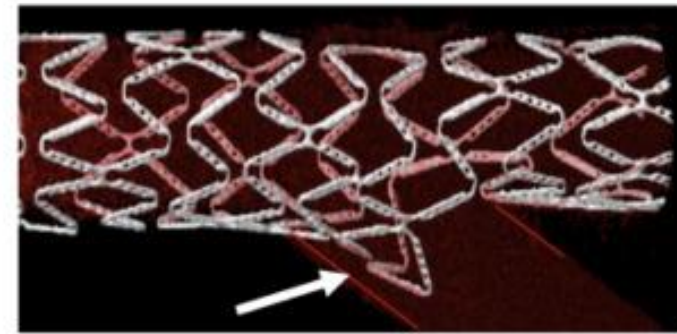
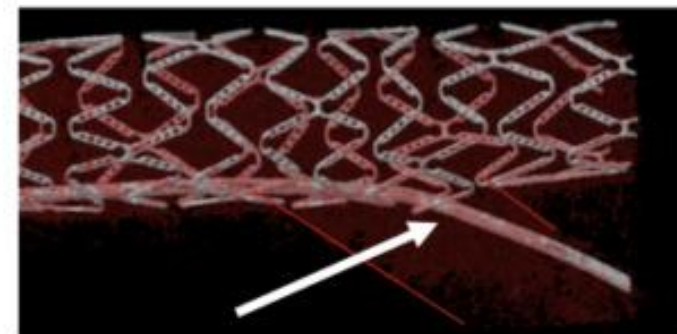


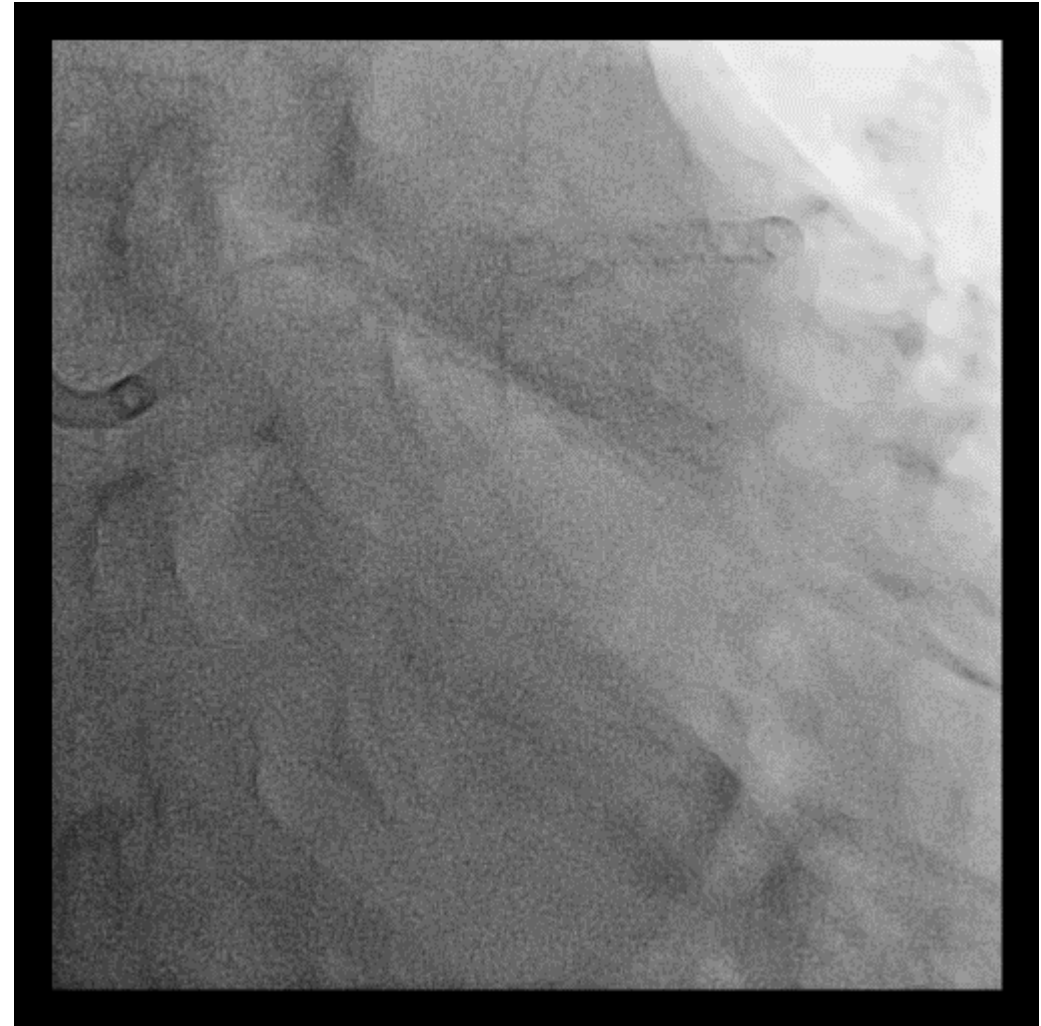
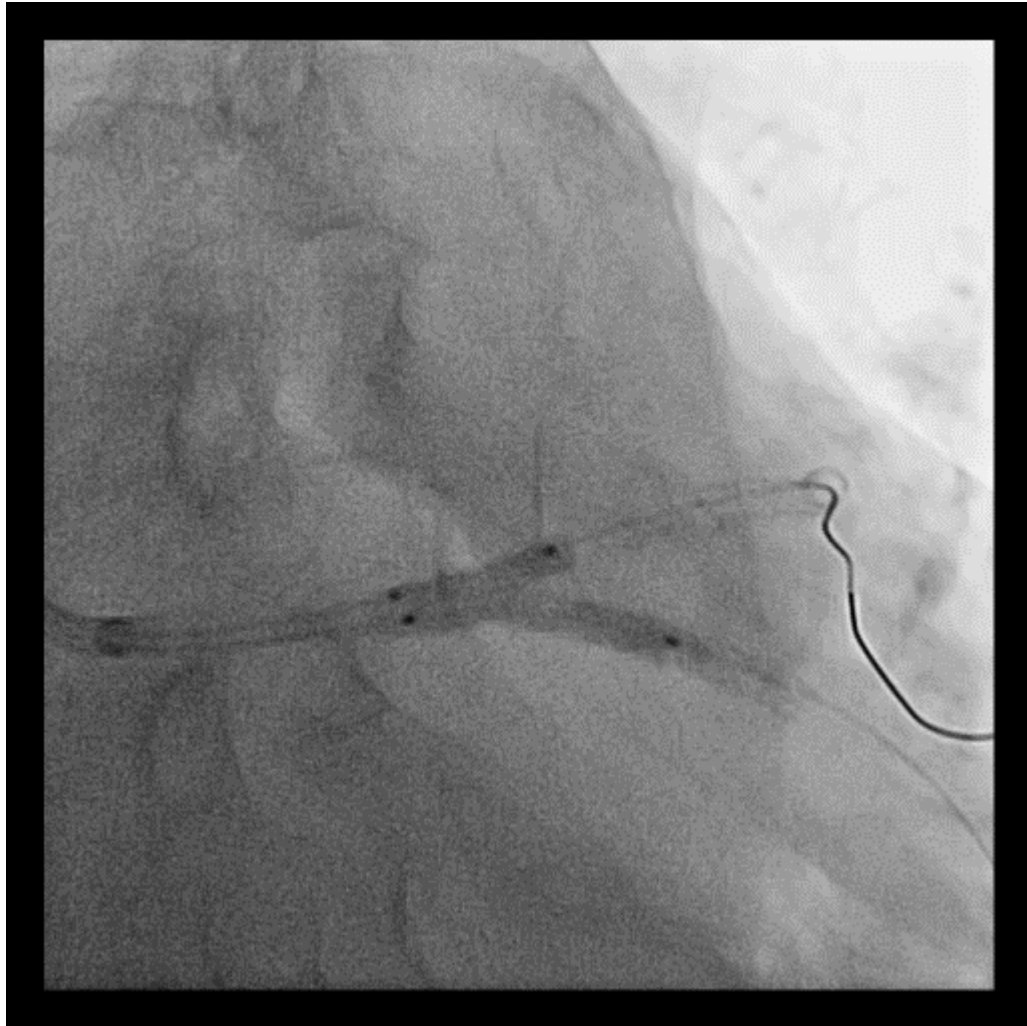


Proximal crossing



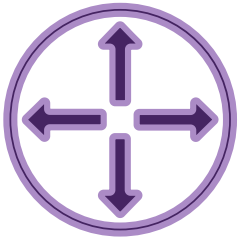
Distal crossing



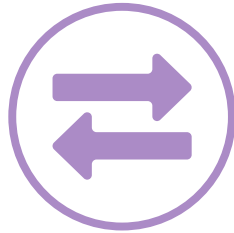


NC Emerge 3.0x12 (LAD) + 2.75x15 (LCX)

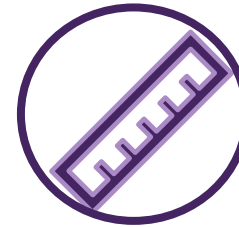
XIENCE Skypoint™ Stent is the latest generation XIENCE™ Stent and has some additional innovation enhancements from XIENCE Sierra™ Stent



**BETTER
EXPANSION**



**EXCELLENT
DELIVERABILITY**



**NEW
48 MM DESIGN**



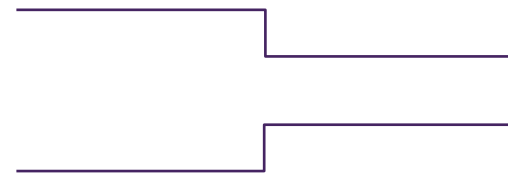
**MORE VISIBLE
CATHETER HUB**

XIENCE Skypoint™ Stent has a **slimmer catheter** and seamless one-piece catheter shaft



EXCELLENT
DELIVERABILITY

Slimmer catheter profile and seamless **one-piece** shaft with **reduced profile (0.001")** to optimize **deliverability** and pushability¹.



XIENCE™



XIENCE Skypoint™

Seamless one-piece
catheter shaft



Guide Wire Exit Notch

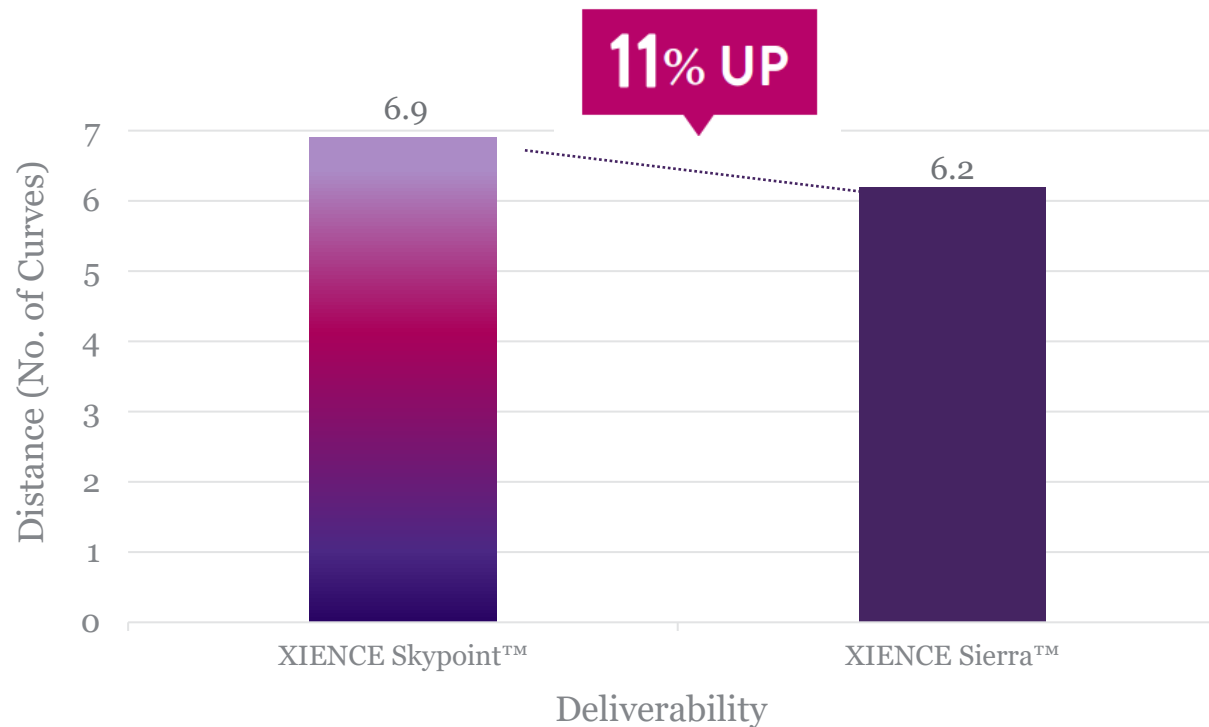
0.001" / 0.0025 mm reduction
in guide-wire notch profile

1. Data on file at Abbott. XIENCE Skypoint™ compared with XIENCE Sierra™. Reduction in profile is not applicable for 48 mm sizes.

XIENCE Skypoint™ Stent improved deliverability to help optimize acute performance



EXCELLENT
DELIVERABILITY

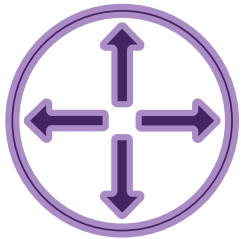


Tests performed and data on file at Abbott. 3.0 x 18 mm stents tested using a simulated arterial model.

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**BETTER
EXPANSION**



**EXCELLENT
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**NEW
48 MM DESIGN**

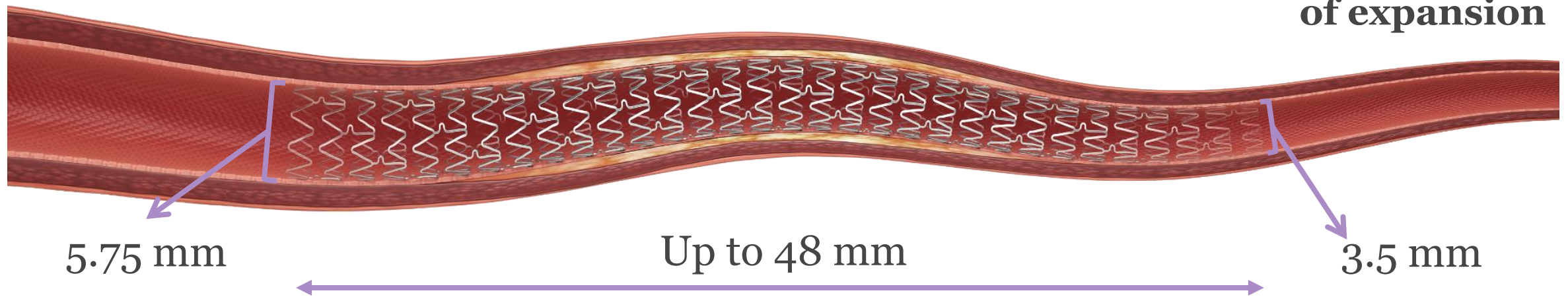


**MORE VISIBLE
CATHETER HUB**

XIENCE Skypoint™ Stent can treat tapered lesions in large vessels using a single stent¹



BETTER
EXPANSION

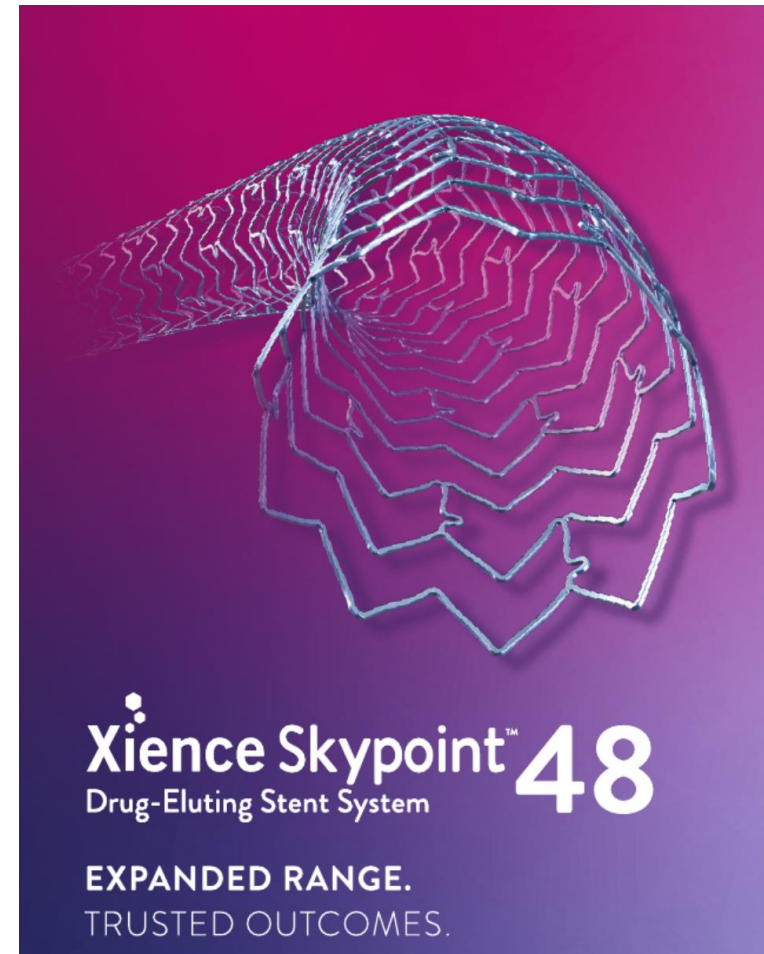
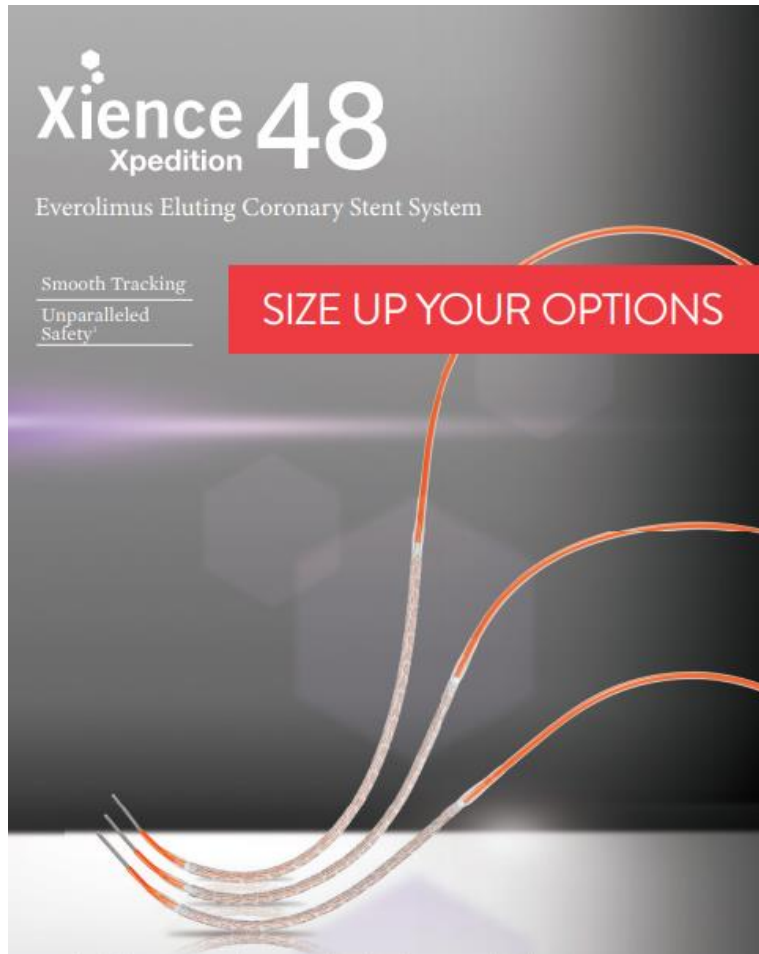


XIENCE Skypoint™ Stent achieves excellent stent expansion and apposition for a wide range of vessel sizes delivering optimal patient outcomes.²

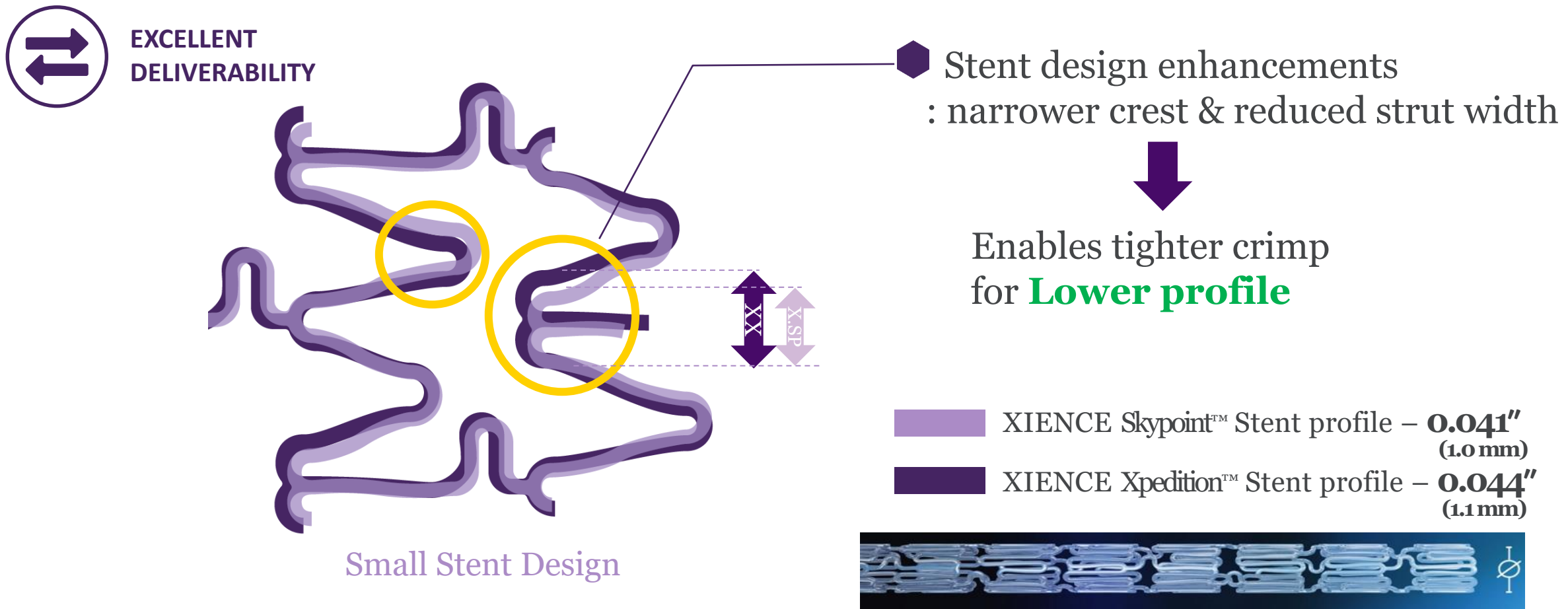
1. Date on file at Abbott.

2. Sudhir K, et al. *ISRN Cardiol.* 2013:748736.

X.Xpedition 48 vs. X. Skypoint 48



XIENCE Skypoint™ Stent 48 mm has a lower crossing profile compared with XIENCE Xpedition™ Stent 48 mm



Data on file at Abbott. Average stent profile – XIENCE Skypoint™ 3.0 x 48 mm compared with XIENCE Xpedition™ 3.0 x 48 mm. Applicable only to 2.5 - 3.0 mm stent sizes.

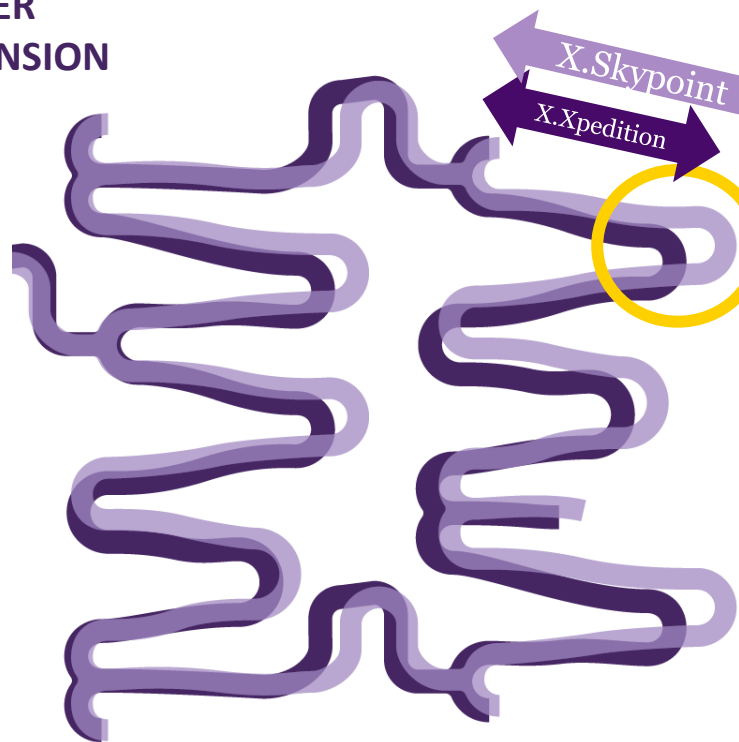
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XIENCE Skypoint™ Stent 48 mm has an enhanced stent design compared with XIENCE Xpedition™ Stent 48 mm



BETTER EXPANSION



Medium Stent Design

Longer bar arms & Cell length



for Larger expansion & Cell expansion

- XIENCE Skypoint™ Stent - **5.75 mm**
- XIENCE Xpedition™ Stent - **4.5 mm**

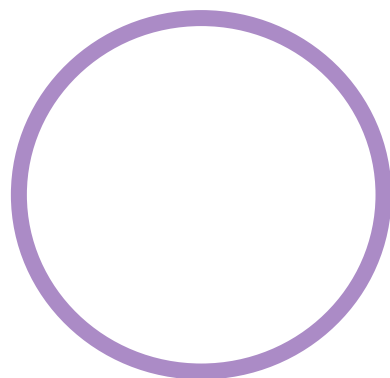
Data on file at Abbott. Note: Elongated bar arms is for medium stent design (9-crest design), 3.5 mm and 4.00 mm.

XIENCE Skypoint™ Stent 48 mm hypotube has a larger wall-thickness to support **excellent pushability**

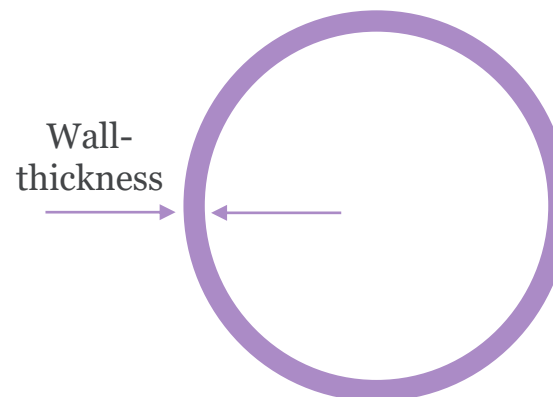


EXCELLENT
DELIVERABILITY

Hypotube wall **thickness increased** and optimized for excellent **pushability** and deliverability – **33% increase** in wall thickness.



XIENCE Xpedition™
Stent



XIENCE Skypoint™
Stent

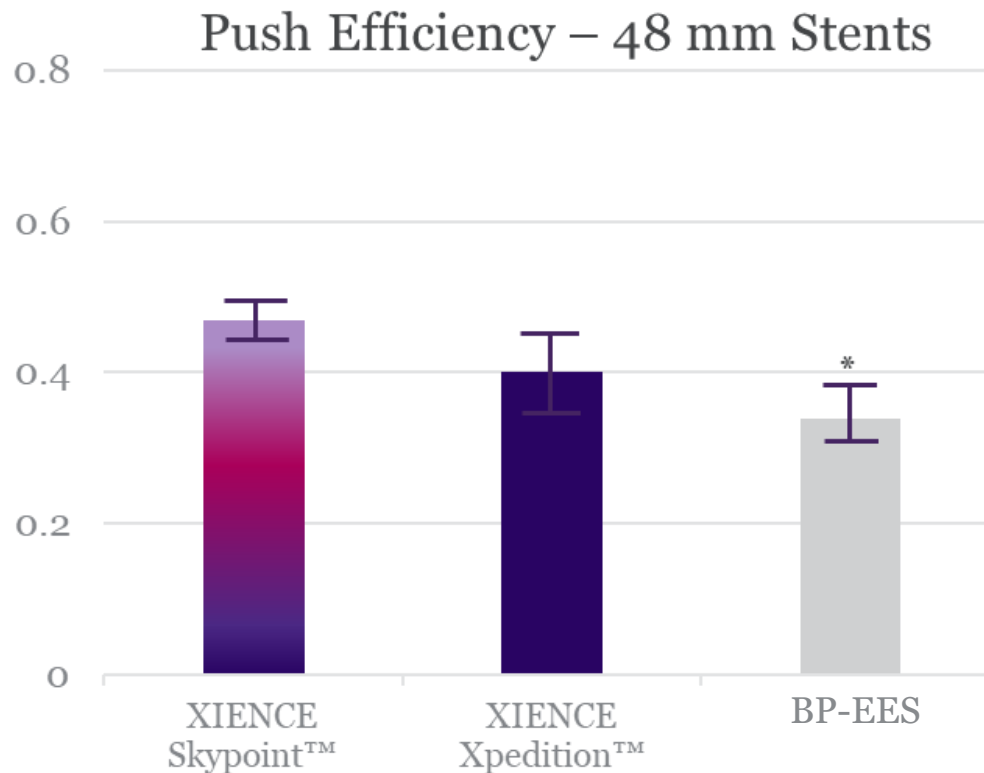
Data on file at Abbott – Hypotube wall thickness information – XIENCE Skypoint™ Stent 0.004" compared with XIENCE Xpedition Stent – 0.003".

XIENCE Skypoint™ Stent – 48 mm design – shows better pushability than competitor DES¹



EXCELLENT
DELIVERABILITY

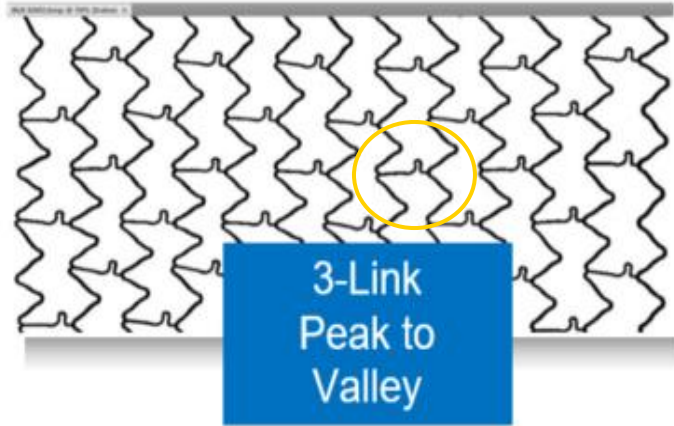
Higher is better
Average Push Efficiency
(gf/gf)



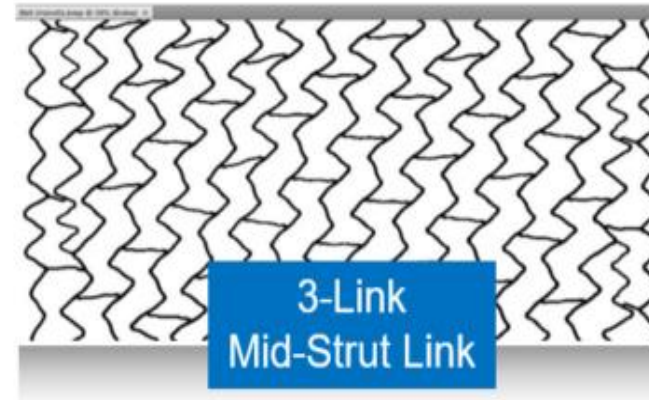
1. Test performed and data on file at Abbott. Bench model – 3.0 x 48 mm stents tested.

XIENCE™ stent has a consistent stent design.

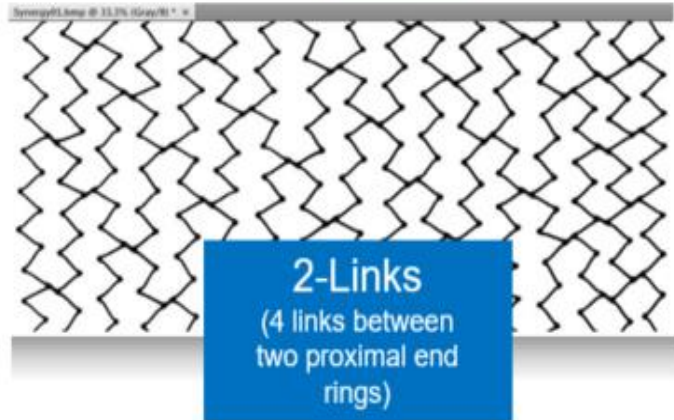
XIENCE 3.0x18 mm



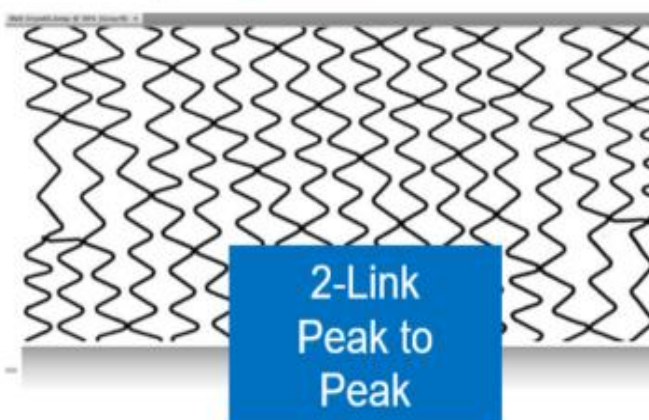
Orsiro™ 3.0x18 mm



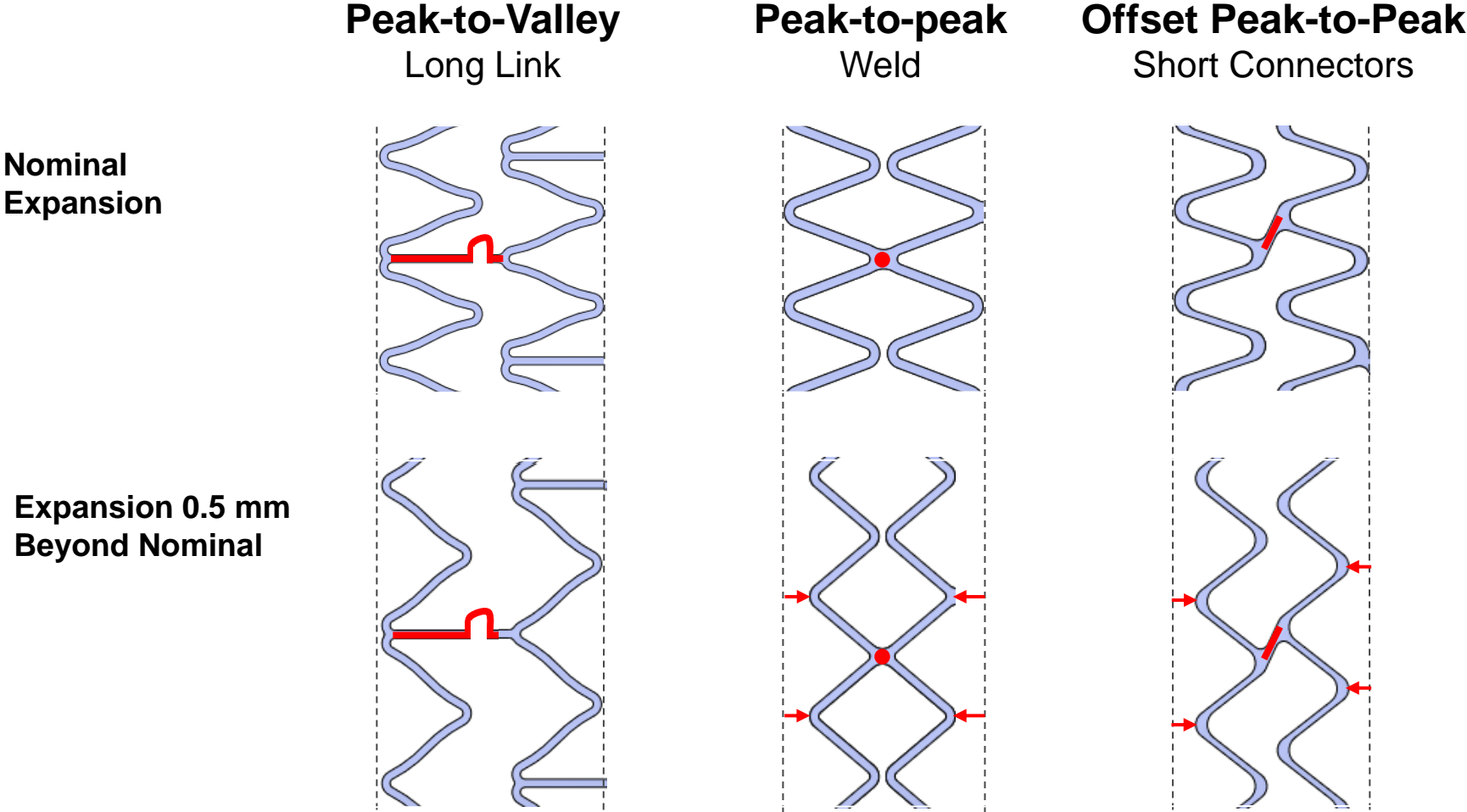
Synergy™ 3.0x20 mm



Onyx™ 3.0x18 mm

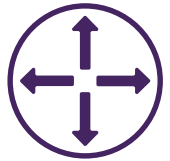


Stent Design

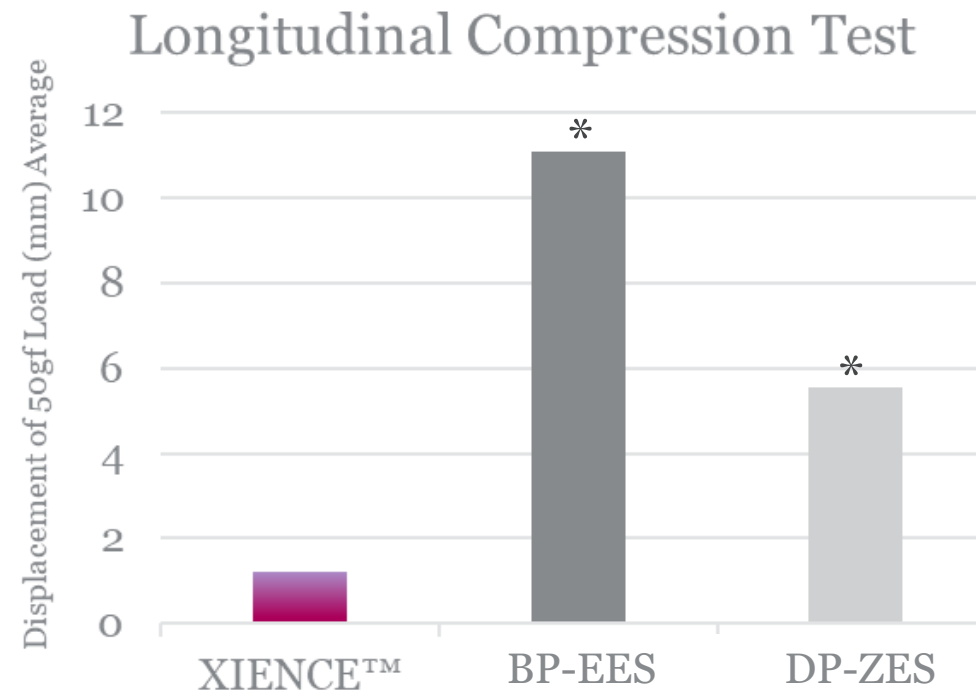


Illustrations are artists' renditions.

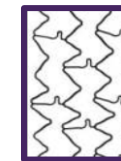
XIENCE™ Stent platform shows excellent longitudinal strength providing scaffolding and stability¹



BETTER
EXPANSION



MULTI-LINK stent platform has 3 links per ring that connect peaks of one ring to the valleys of the adjacent ring. This design prevents struts from compressing together and stretching apart (elongating).

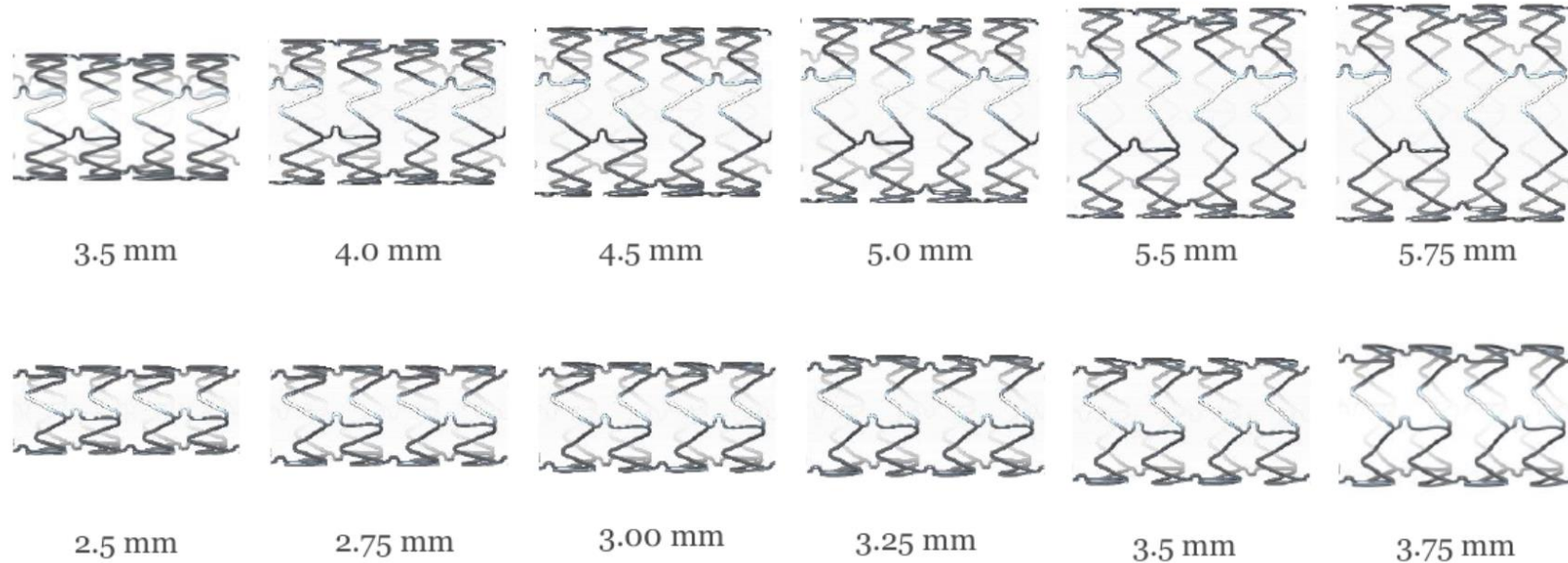


XIENCE Skypoint™ Stent has significantly better longitudinal strength to help ensure optimal procedural outcomes.

1. Test performed by and data on file at Abbott. XIENCE Sierra™ Stent (3.0 x 28 mm) n=5, BP-EES[‡] (3.0 x 28 mm) n=5, DP-ZES[‡] (3.0 x 28 mm) n=5.

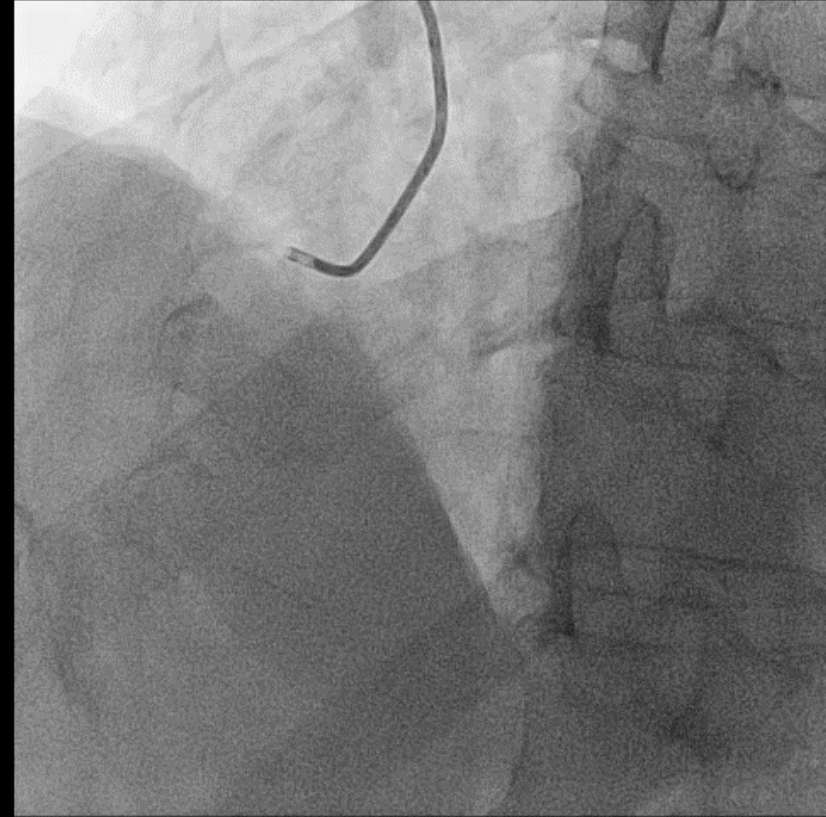
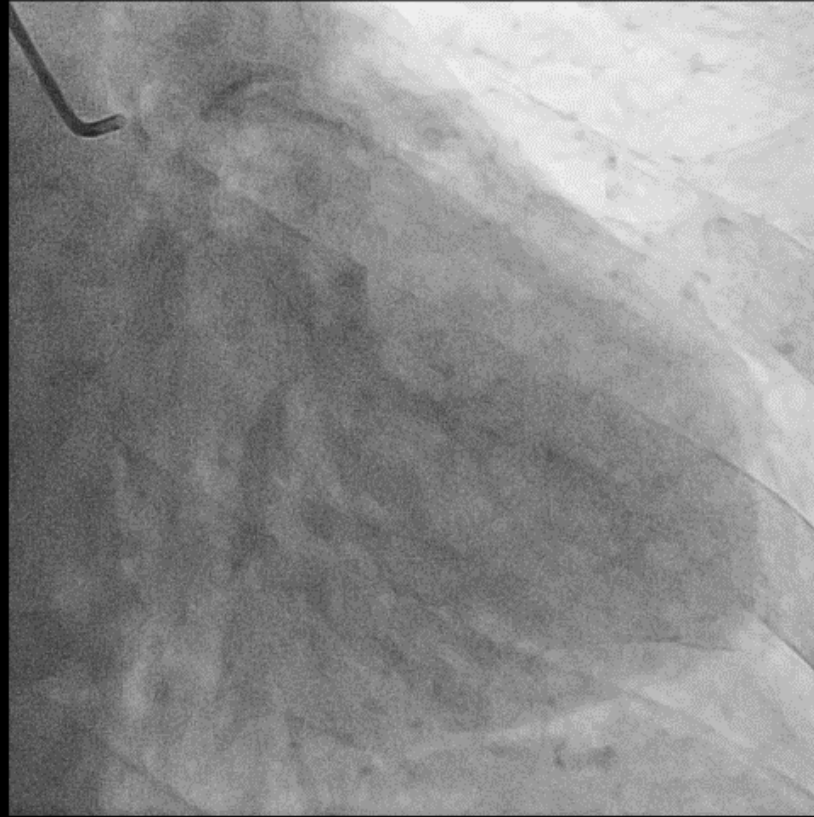
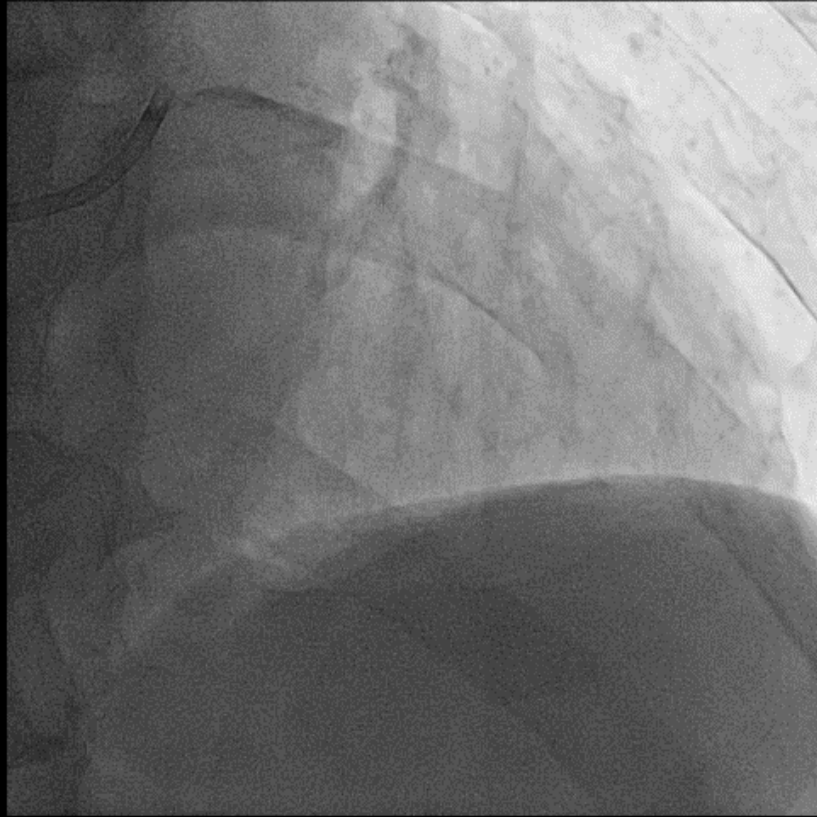
*Denotes statistically significant difference compared with XIENCE™ Stent.

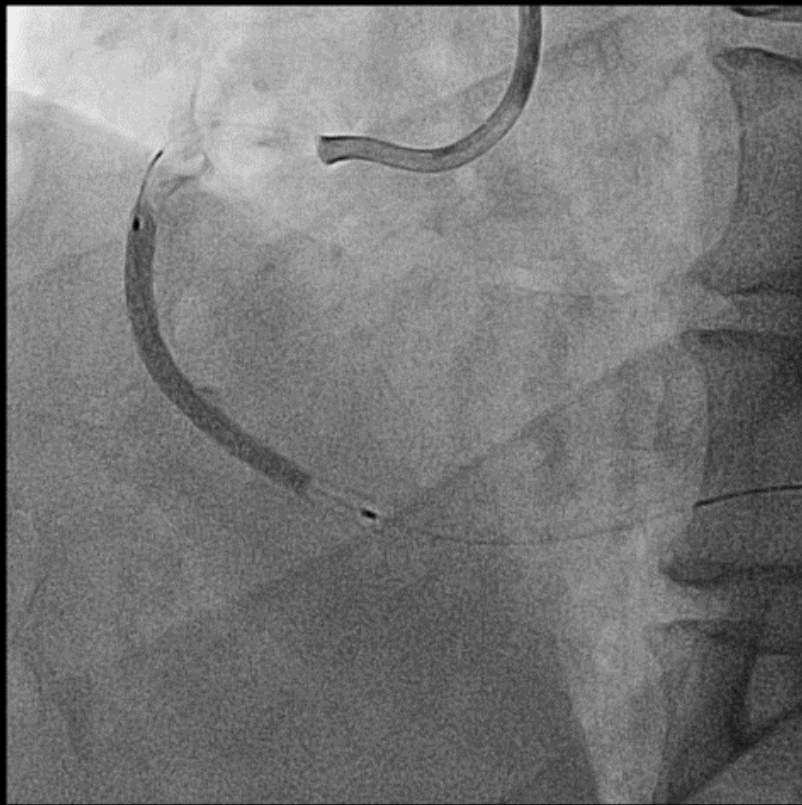
XIENCE™ stent has a consistent stent design.



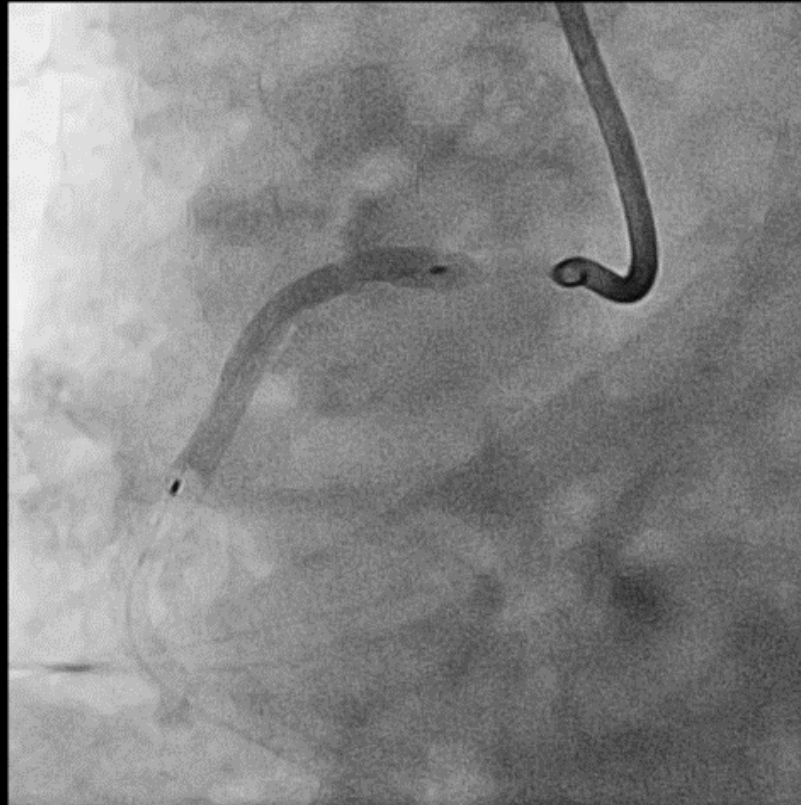
Less stent pattern deformation potentially leads to better apposition, lesion scaffolding and more uniform drug distribution.

66/F, NSTEMI, refused CABG

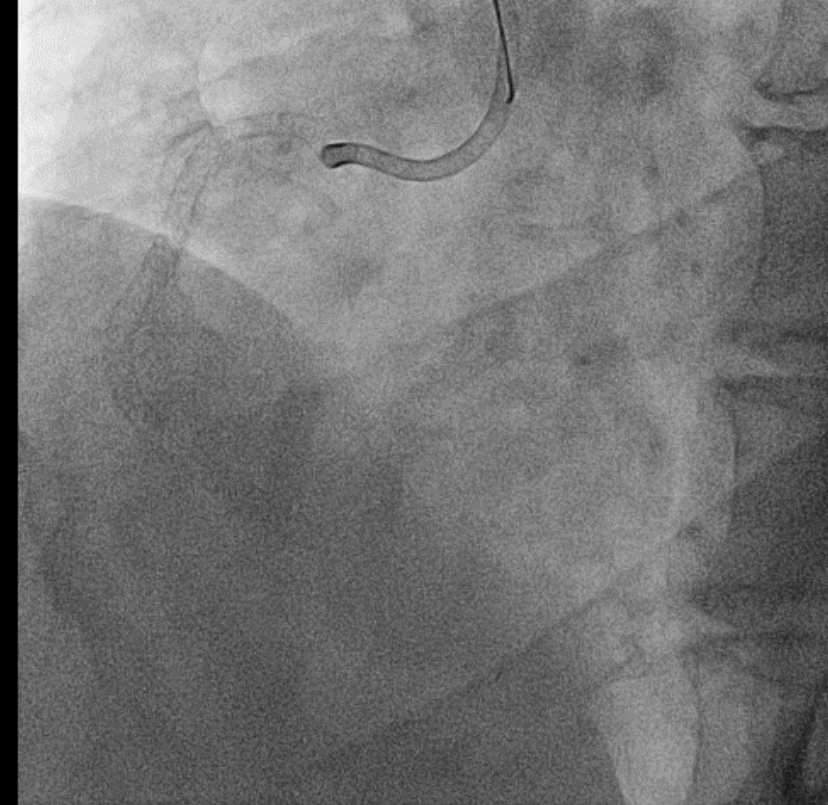


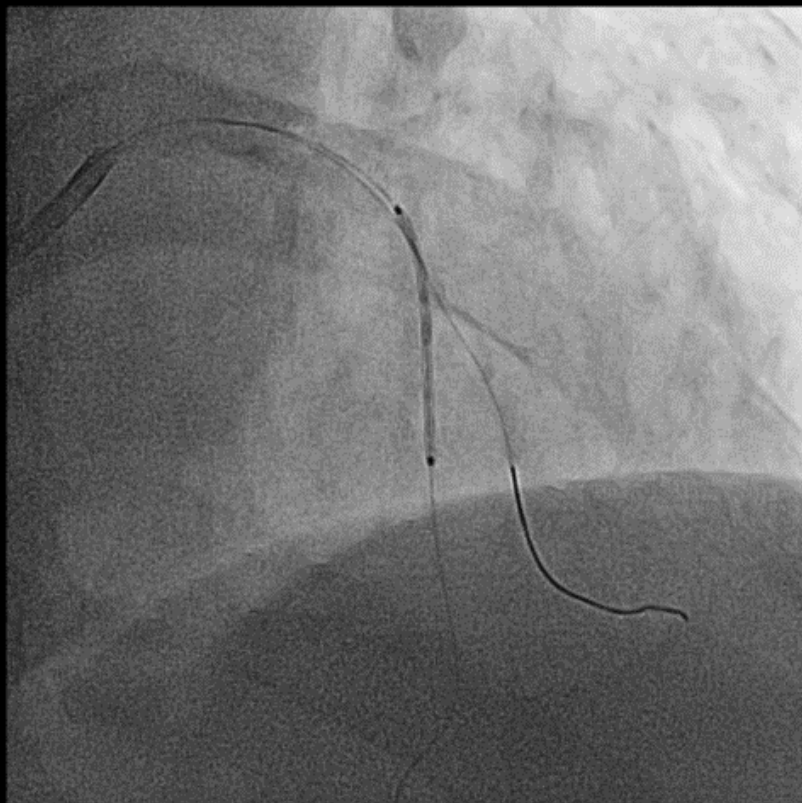


Xience skypoint 3.0x48

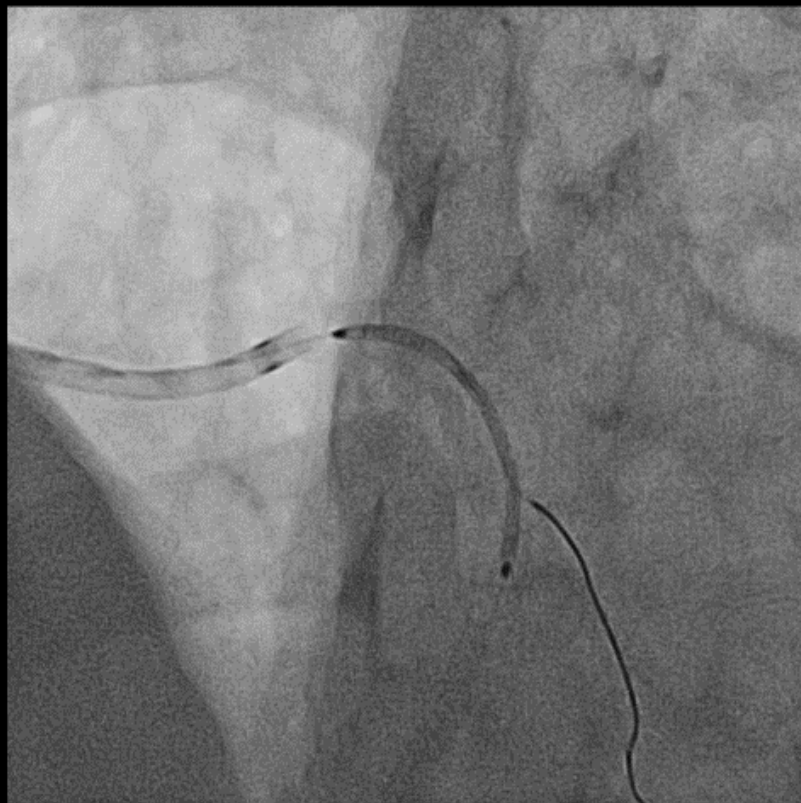


Xience skypoint 4.0x33

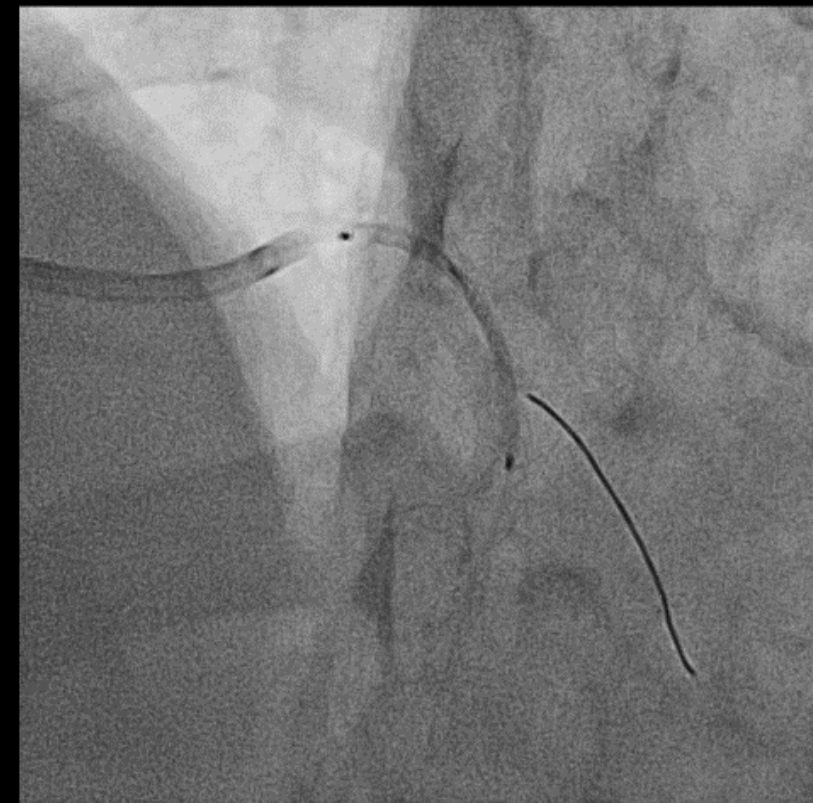




Xience skypoint 3.0 x 28



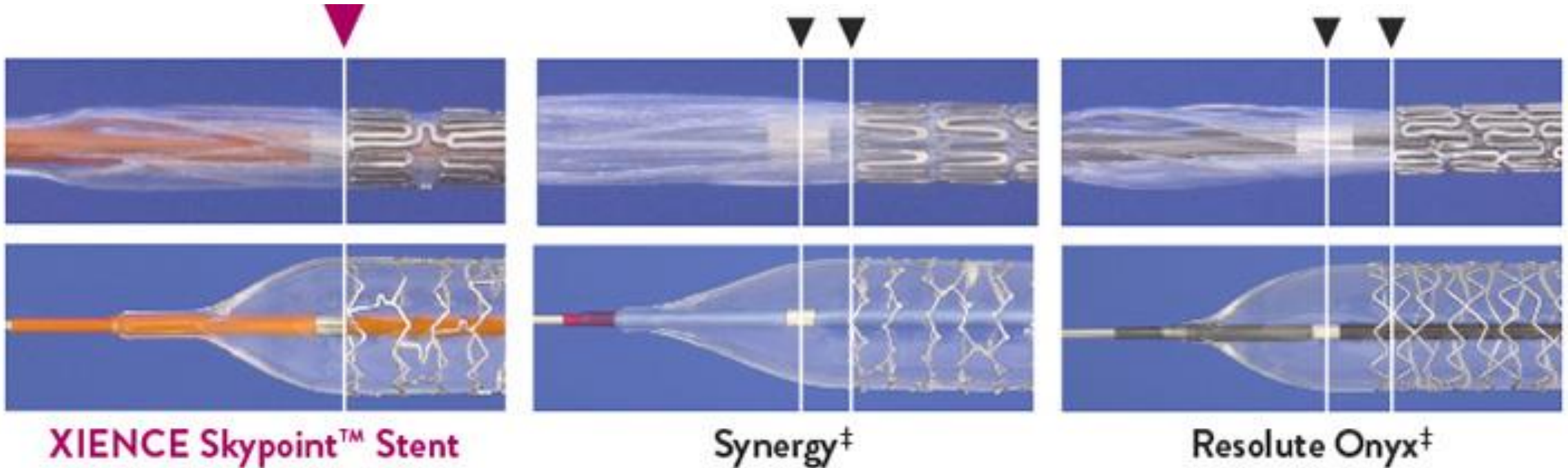
Xience skypoint 3.5 x 38



XIENCE Skypoint™ Stent Supports Accurate Stent Placement Through Precise Stent and Marker Placement

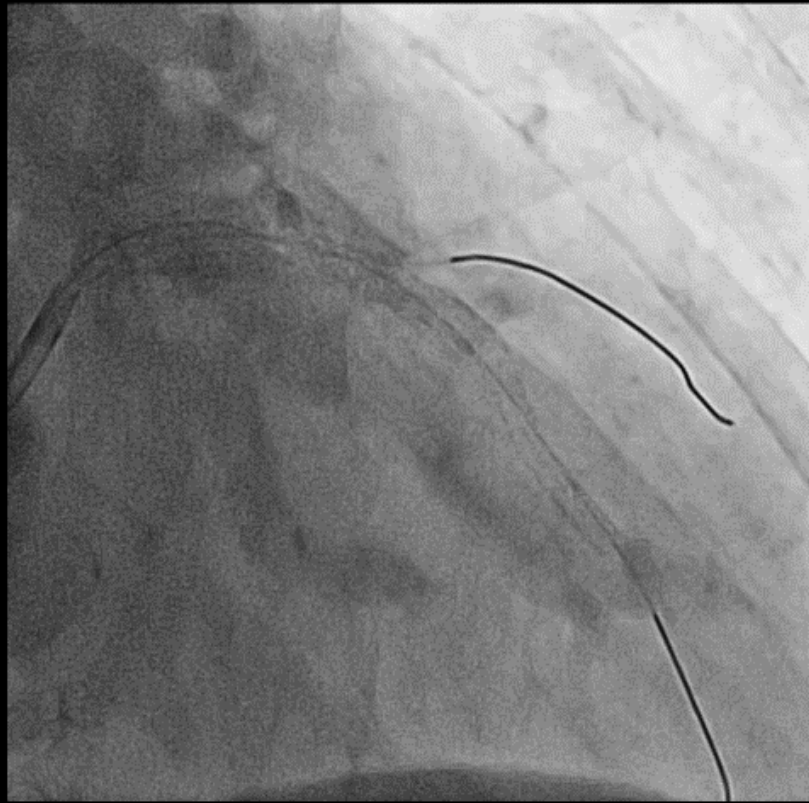


Accurate mid-marker placement enables precise scaffolding and reduces the likelihood of geographic miss to support optimal patient outcomes.

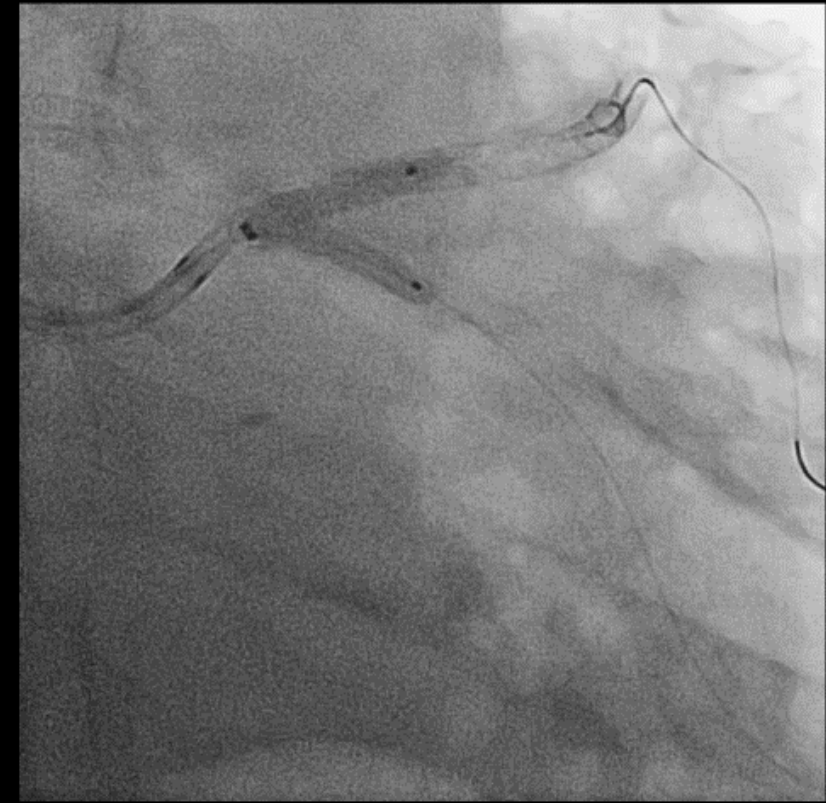
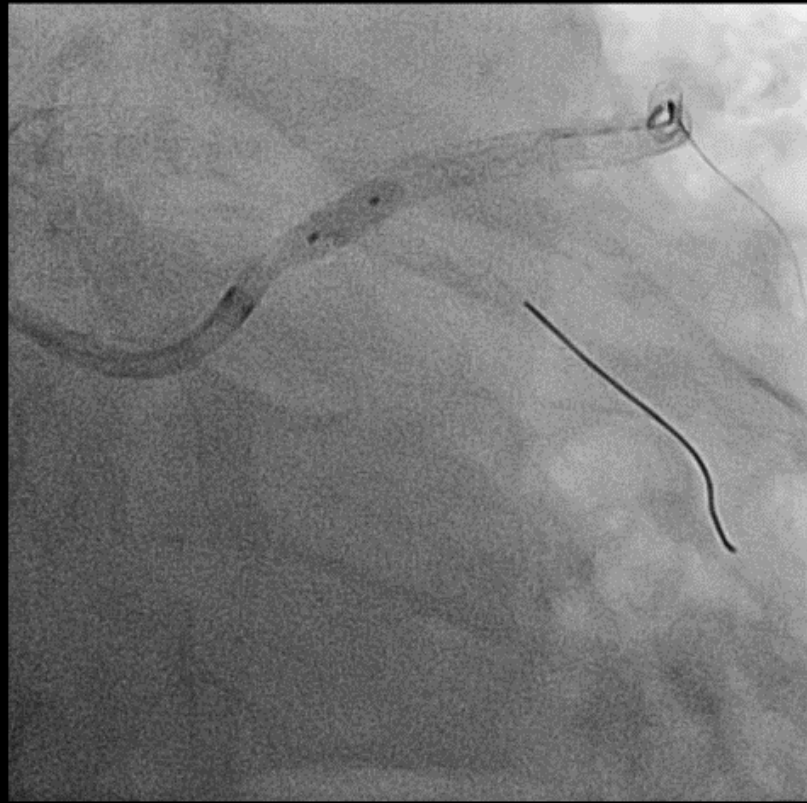


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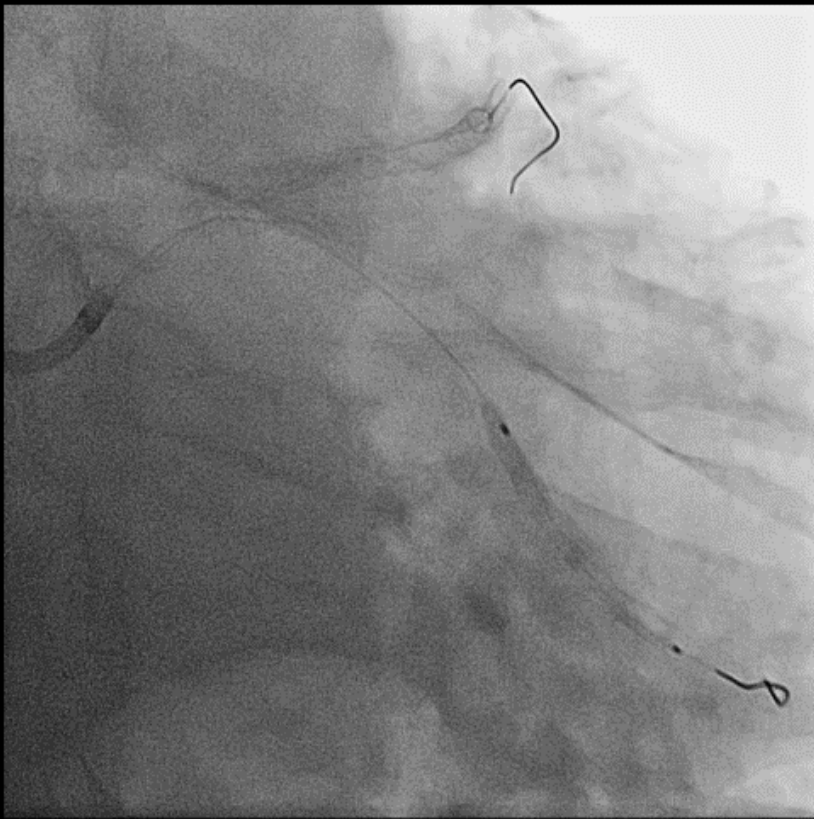
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Selectthru NC 4.0x6



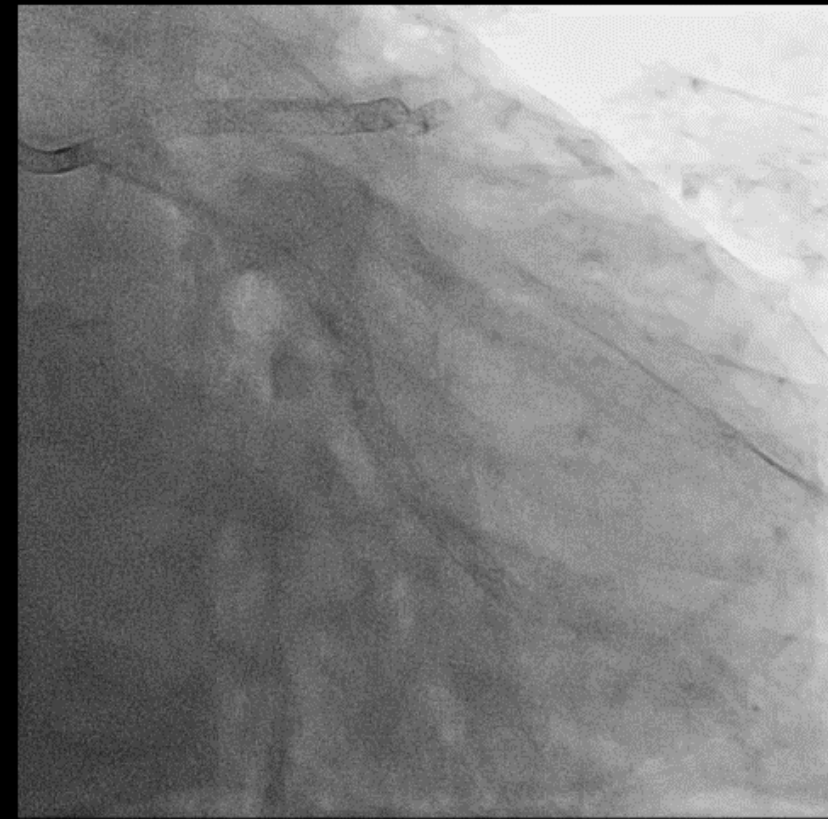
NC Accuforce 3.5x15 (LAD) + 3.0x15 (LCX)



Xience skypoint 3.5 x 33



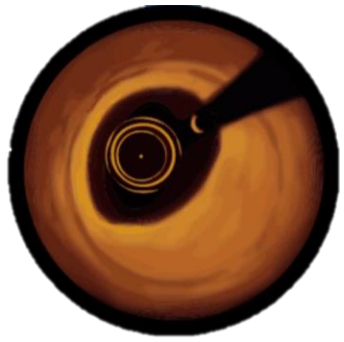
Xience skypoint 3.5 x 23



OCTBER Trial

OCT or Angiography Guidance for PCI in Complex Bifurcation Lesions

Holm NR et al. DOI: 10.1056/NEJMoa2307770



OCT-guided PCI

VS

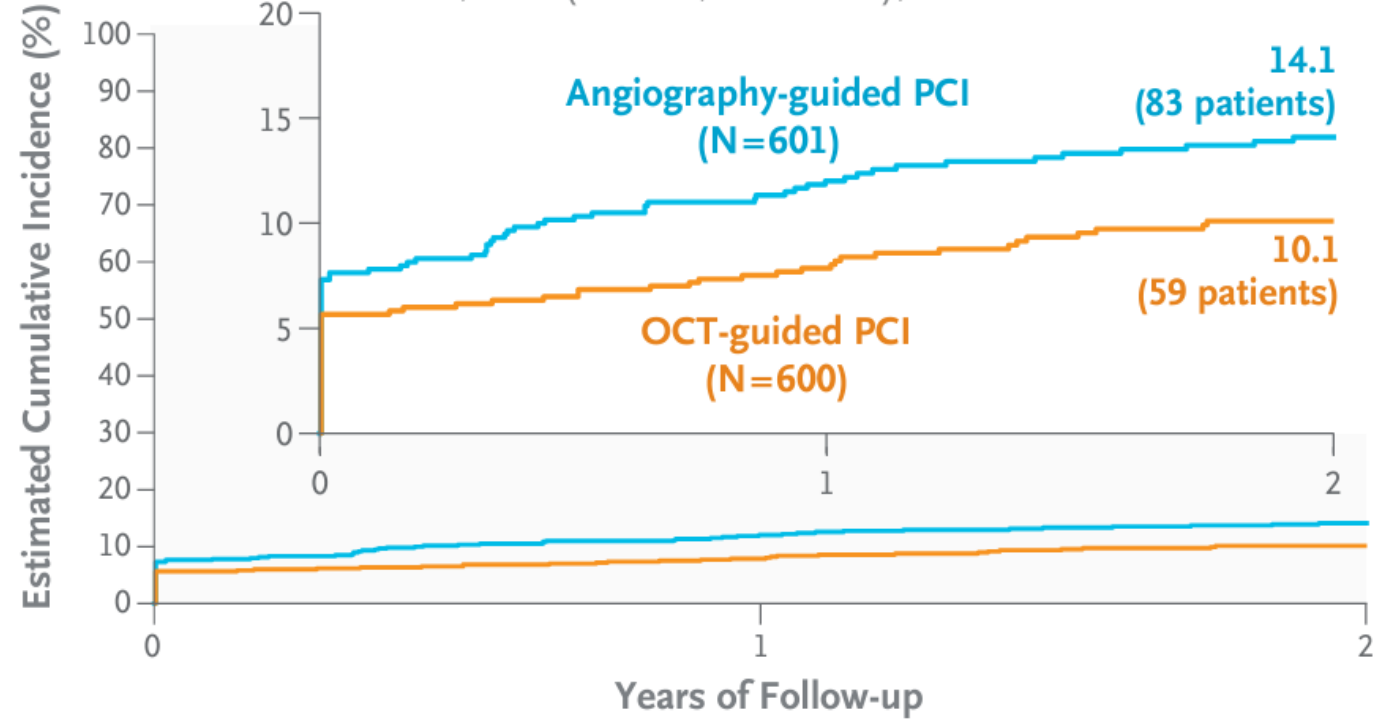


Angiography-guided PCI

In patients with complex coronary-artery bifurcation lesions

Incidence of MACE (Primary End Point)

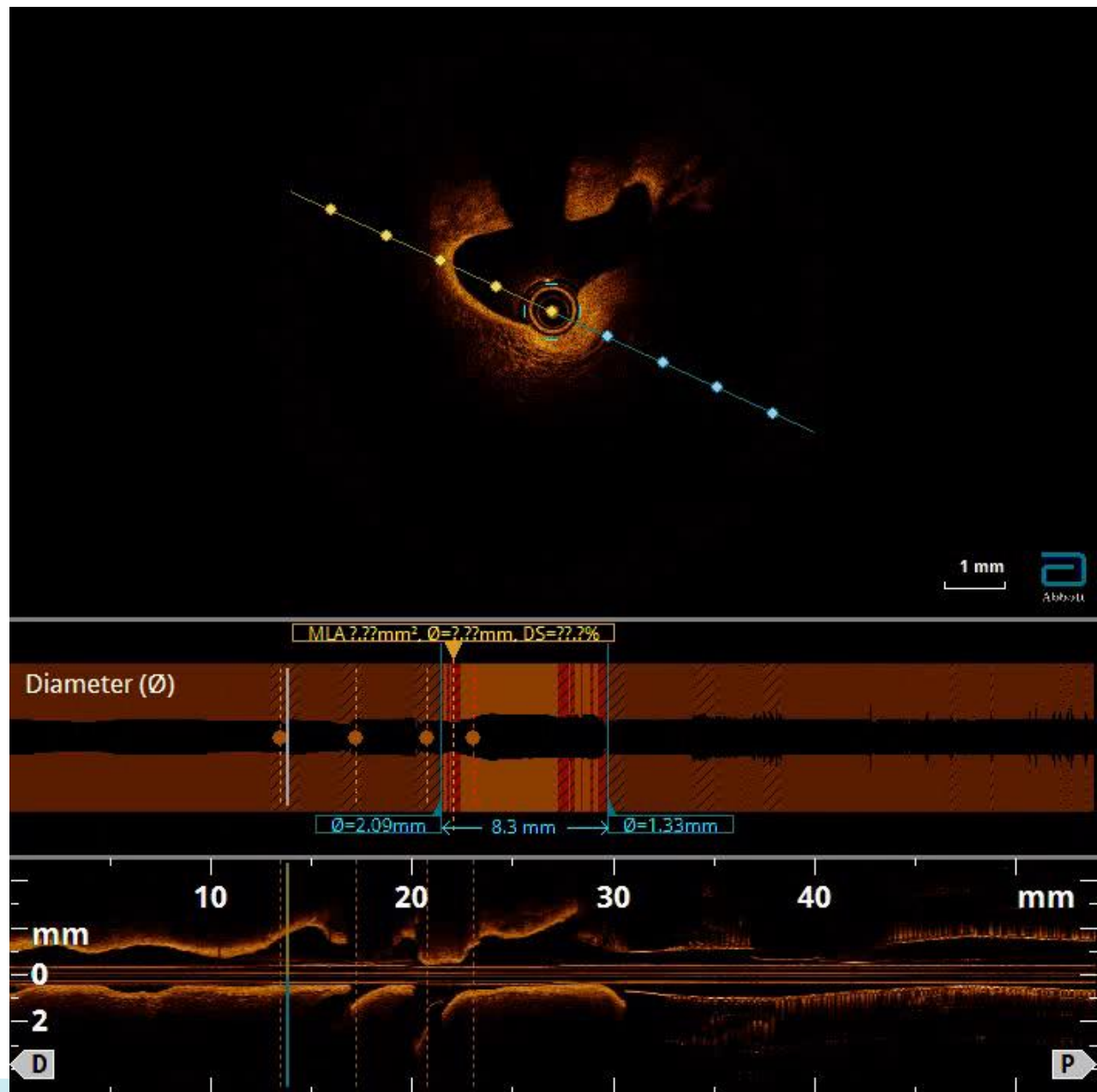
HR, 0.70 (95% CI, 0.50–0.98), P=0.035

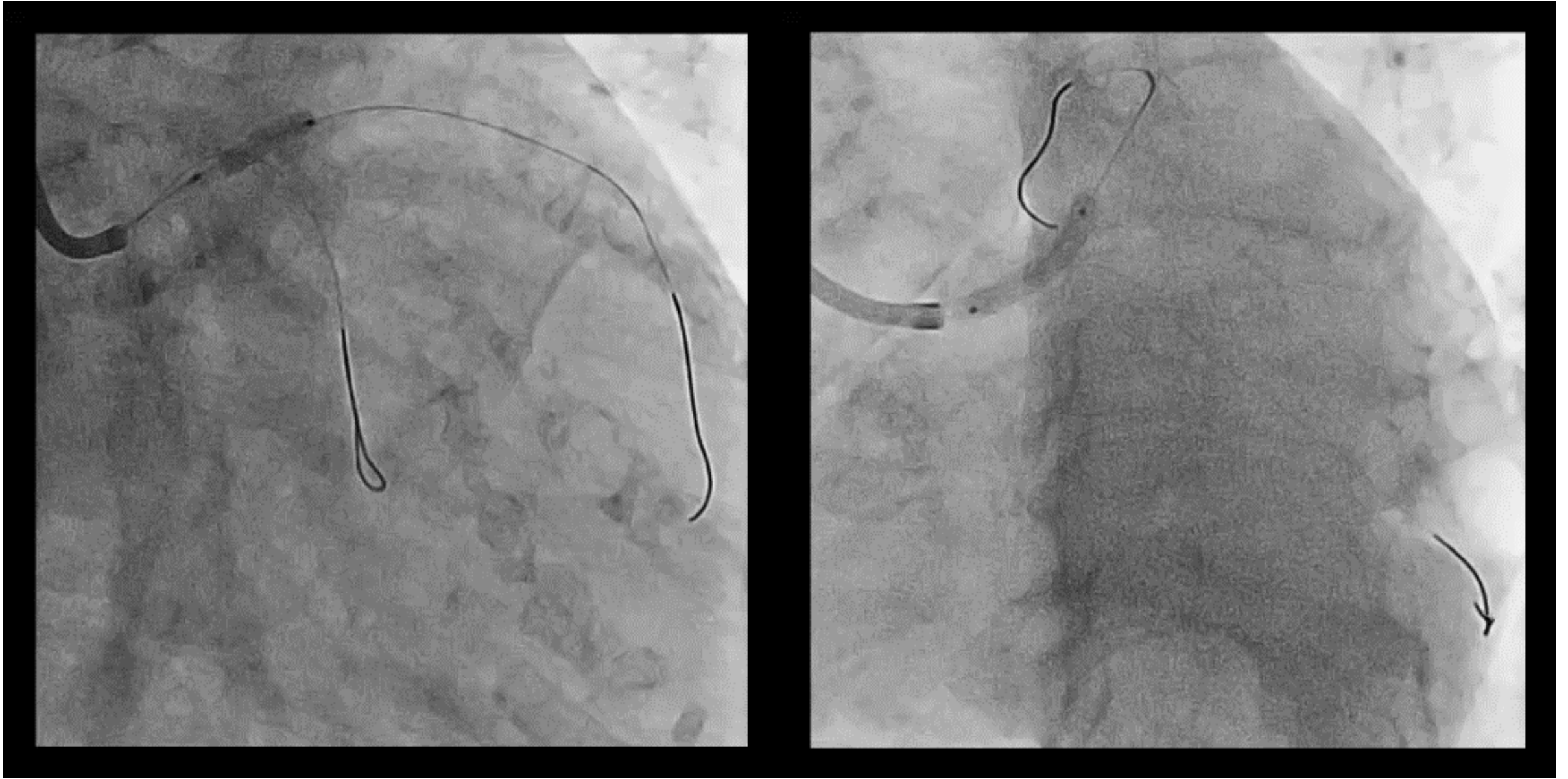


85/F, Stable angina, DOE (+)



LAD OCT(Pre-PCI)



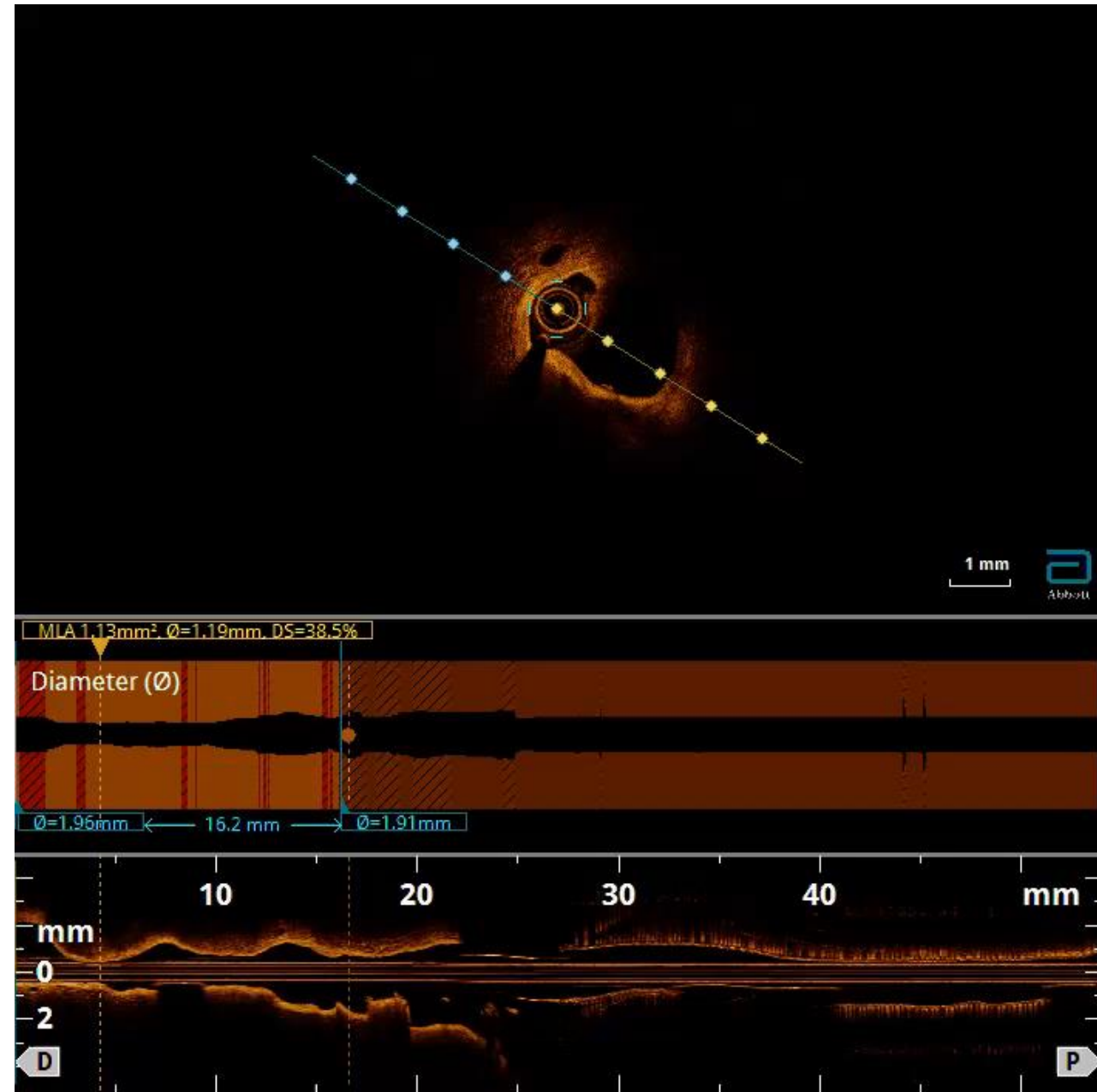
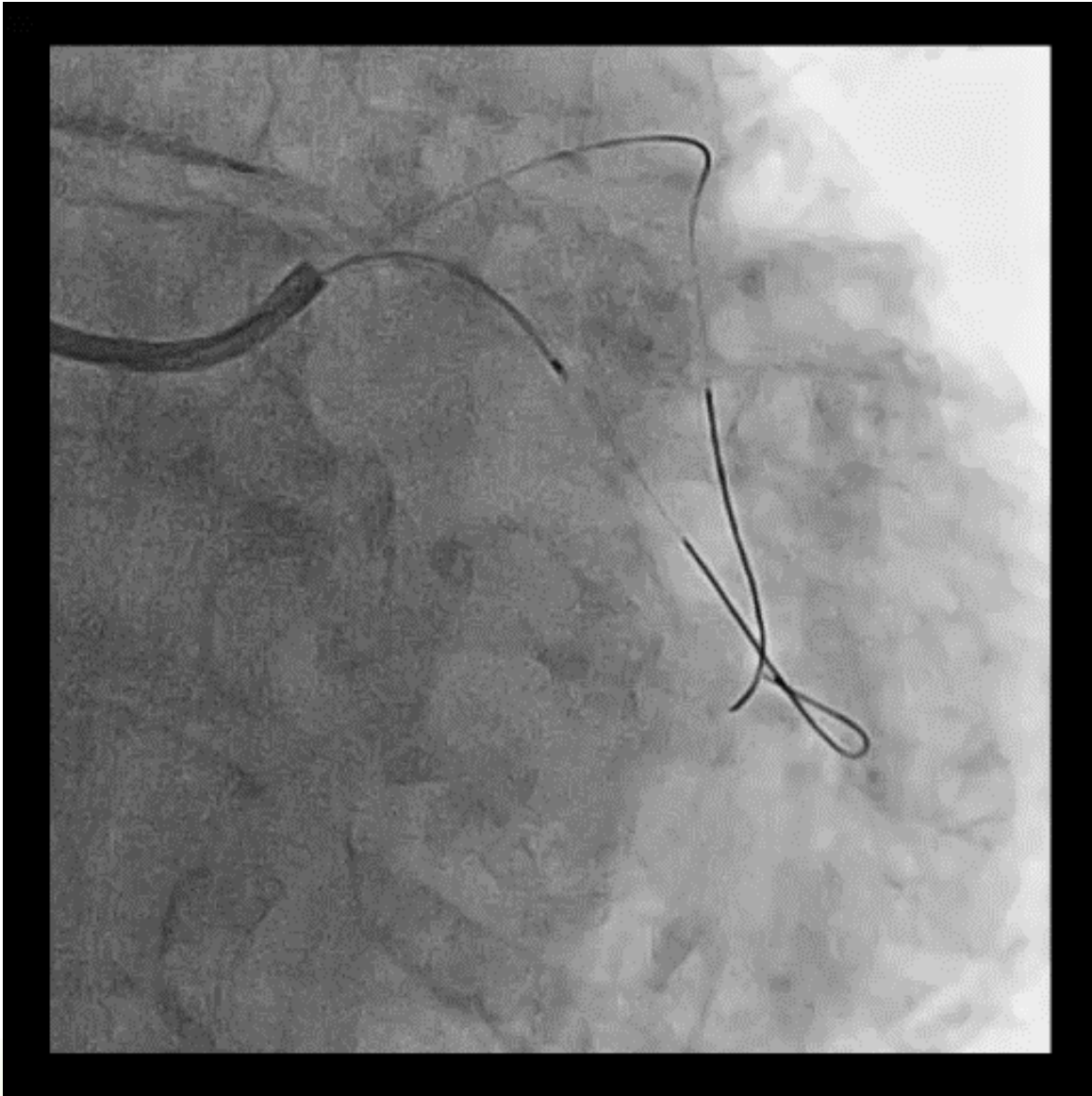


3.0x15mm NC balloon at Left main to LAD

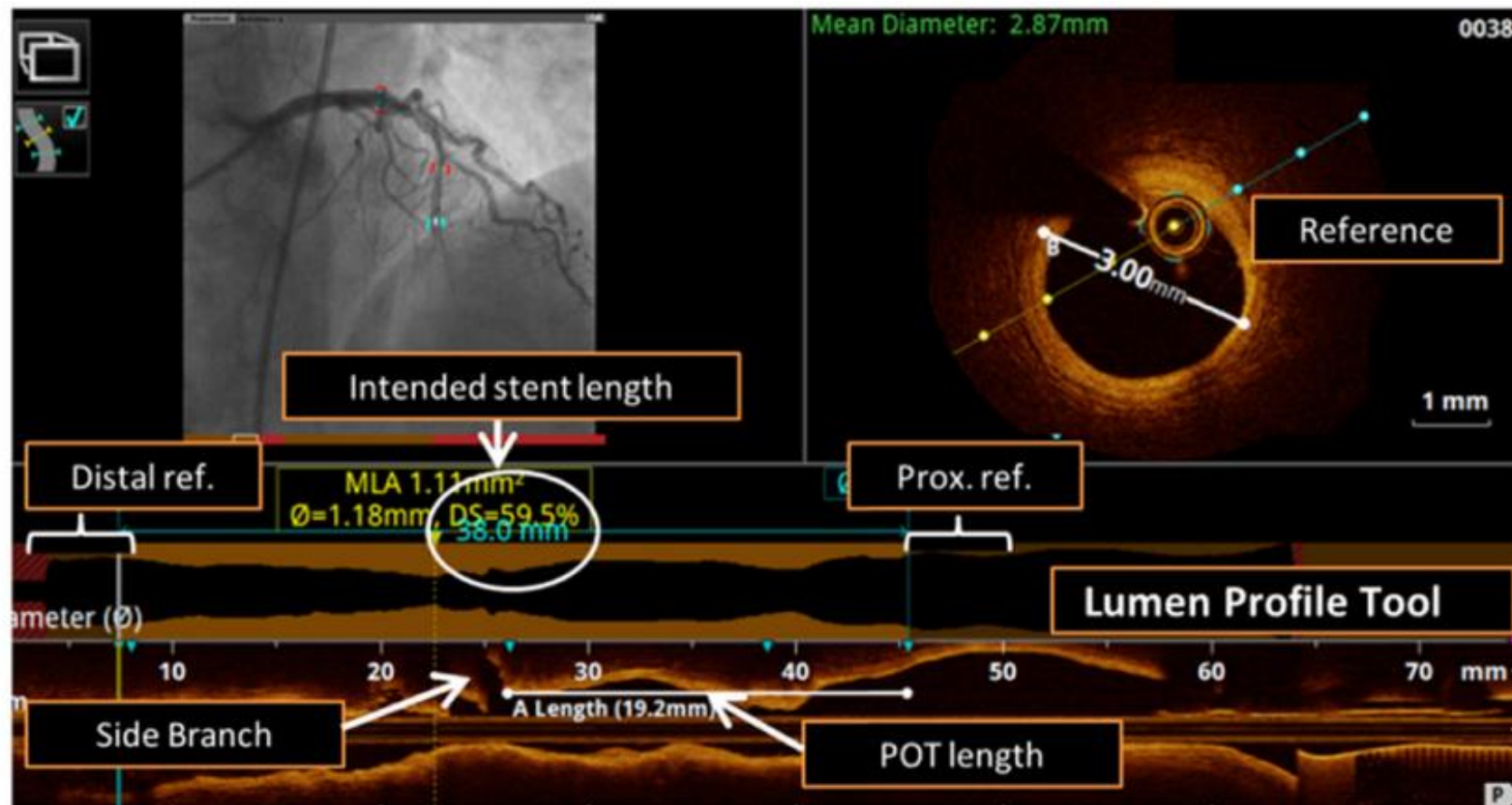


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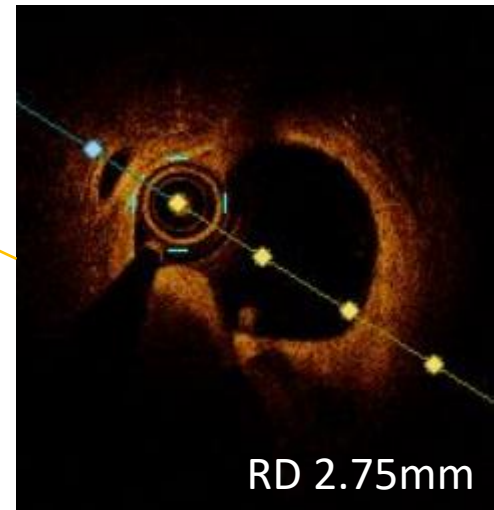
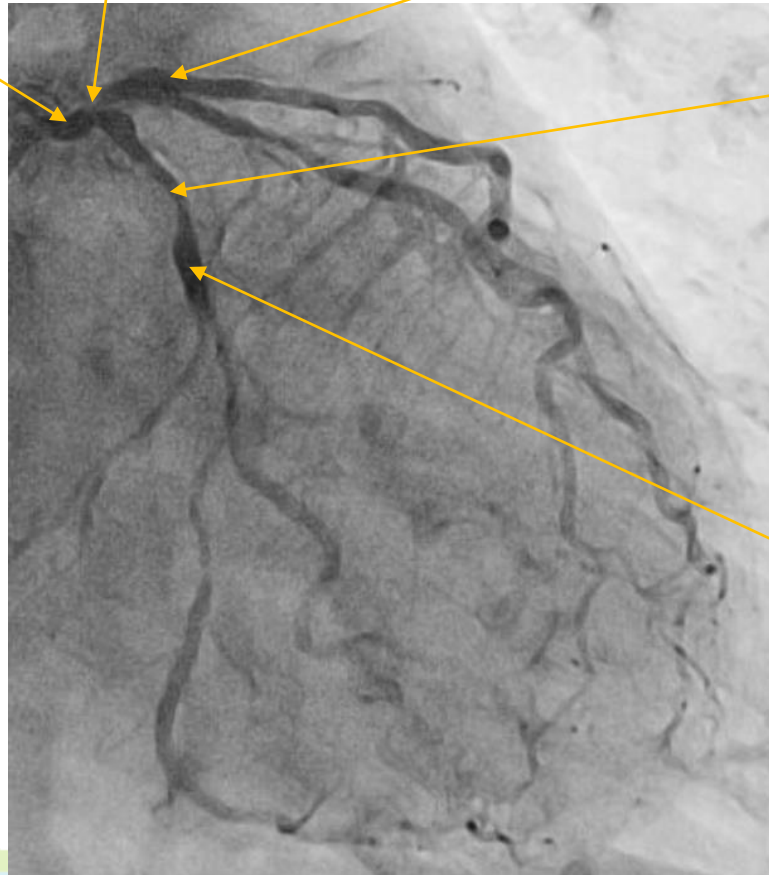
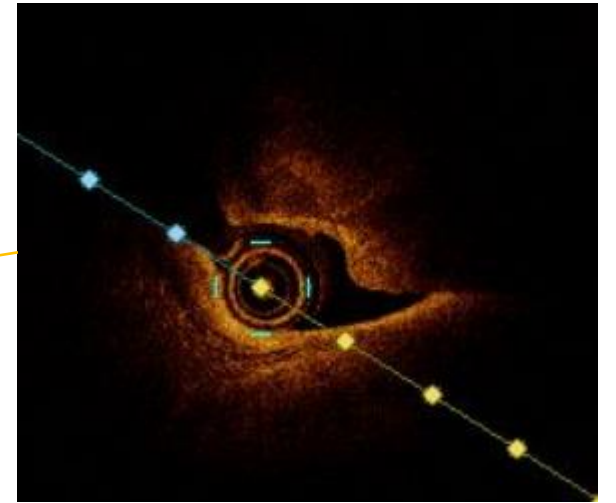
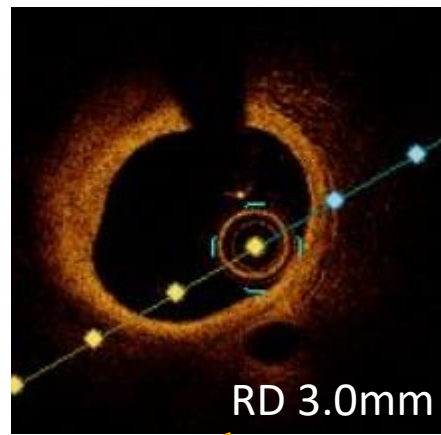
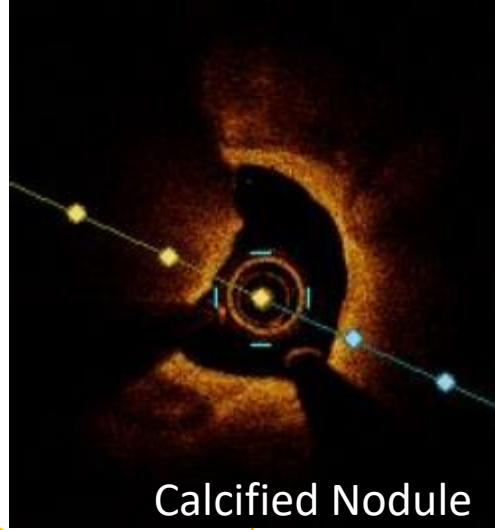
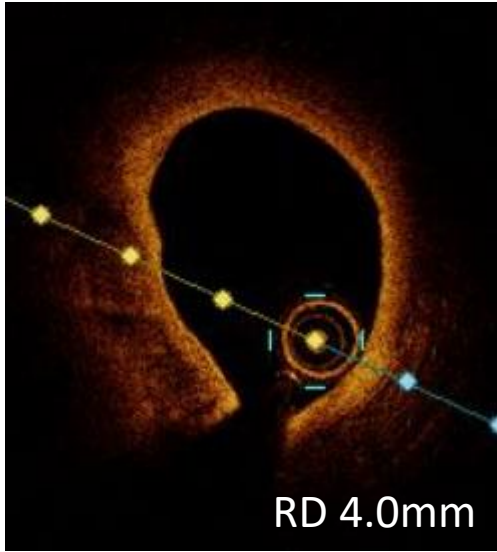
LCX OCT after LM-LAD ballooning

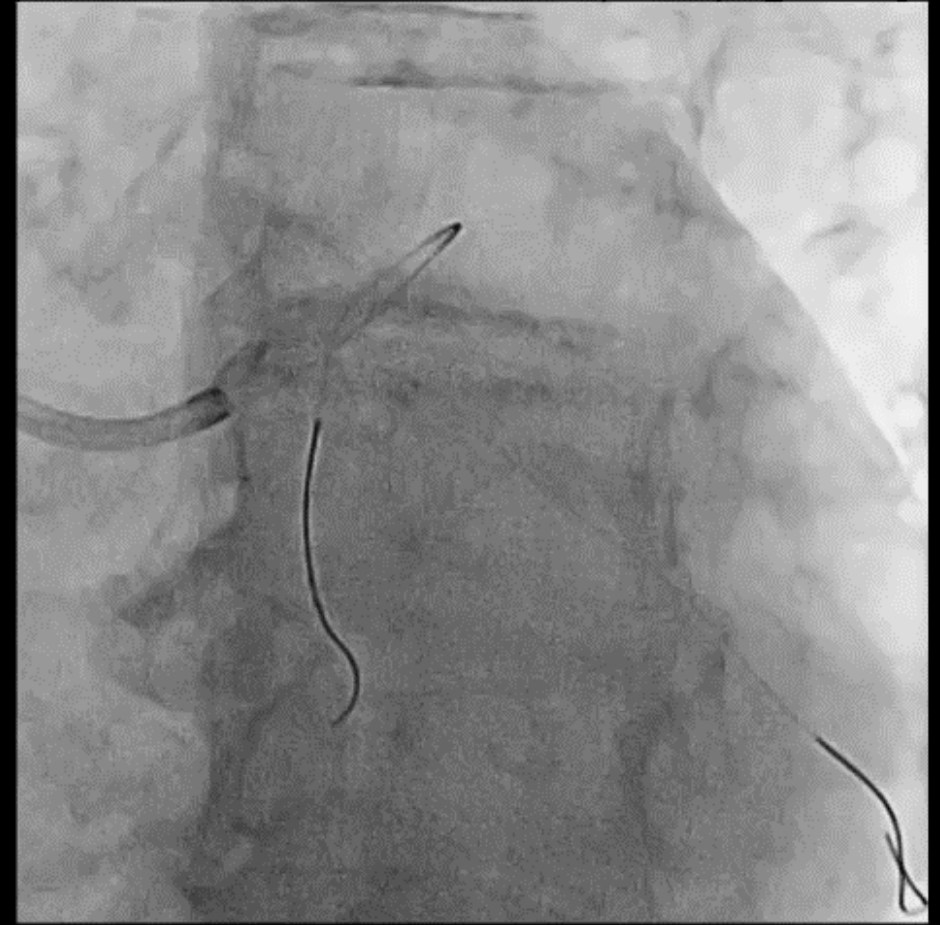
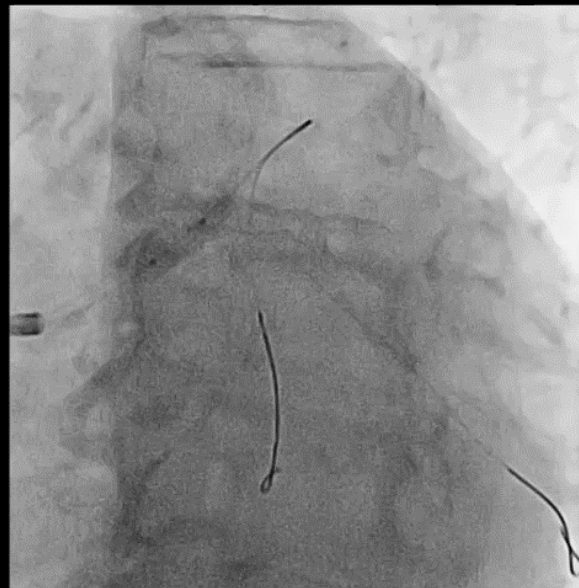
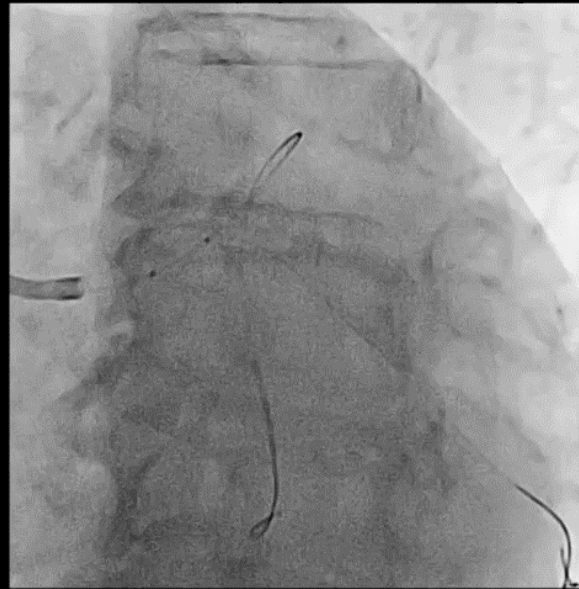
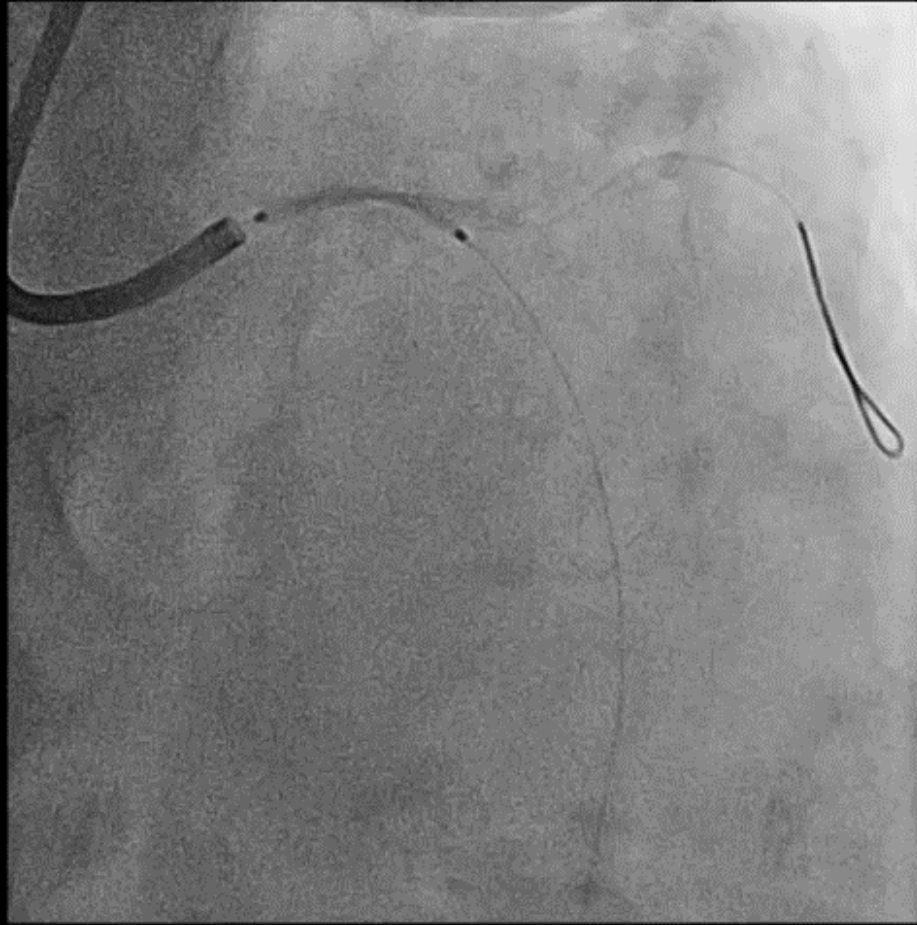


Pre-stent OCT assessment (after pre-dilatation)



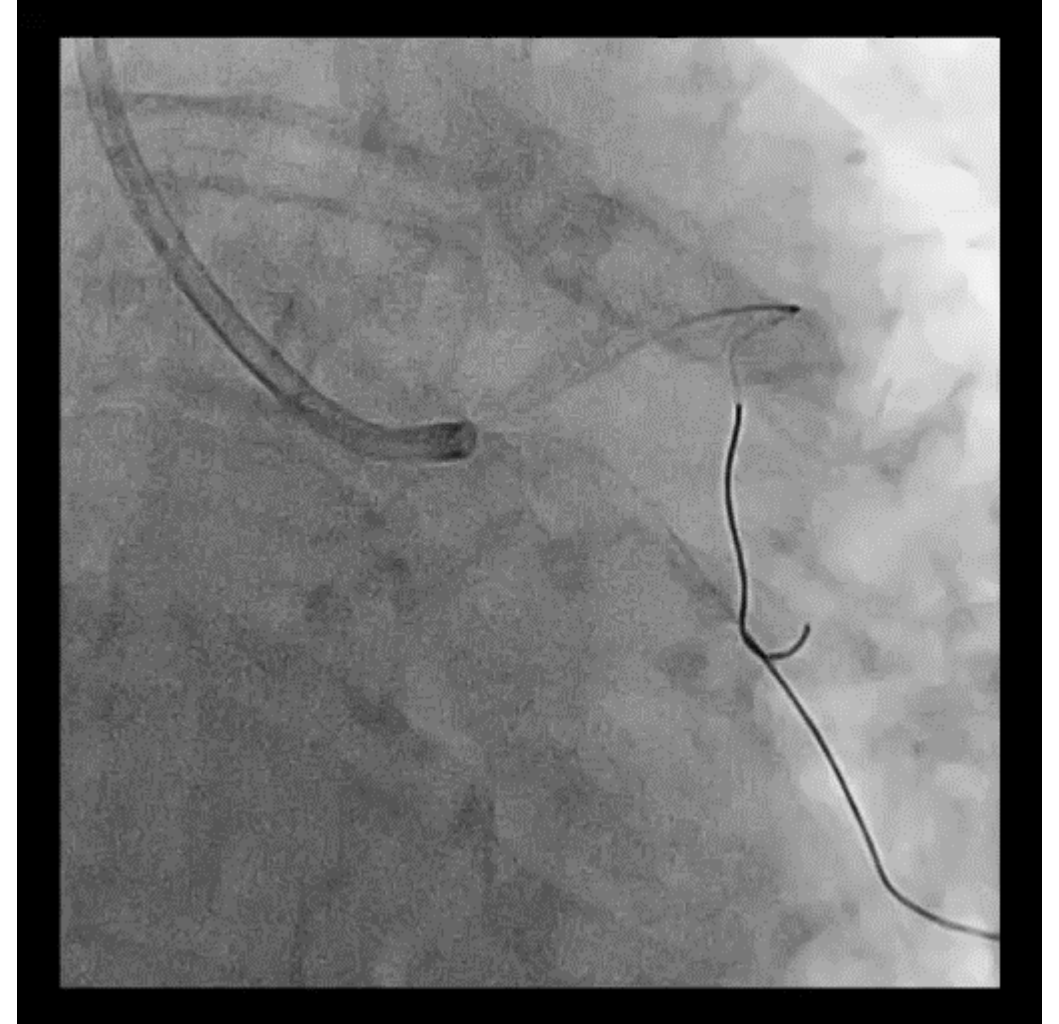
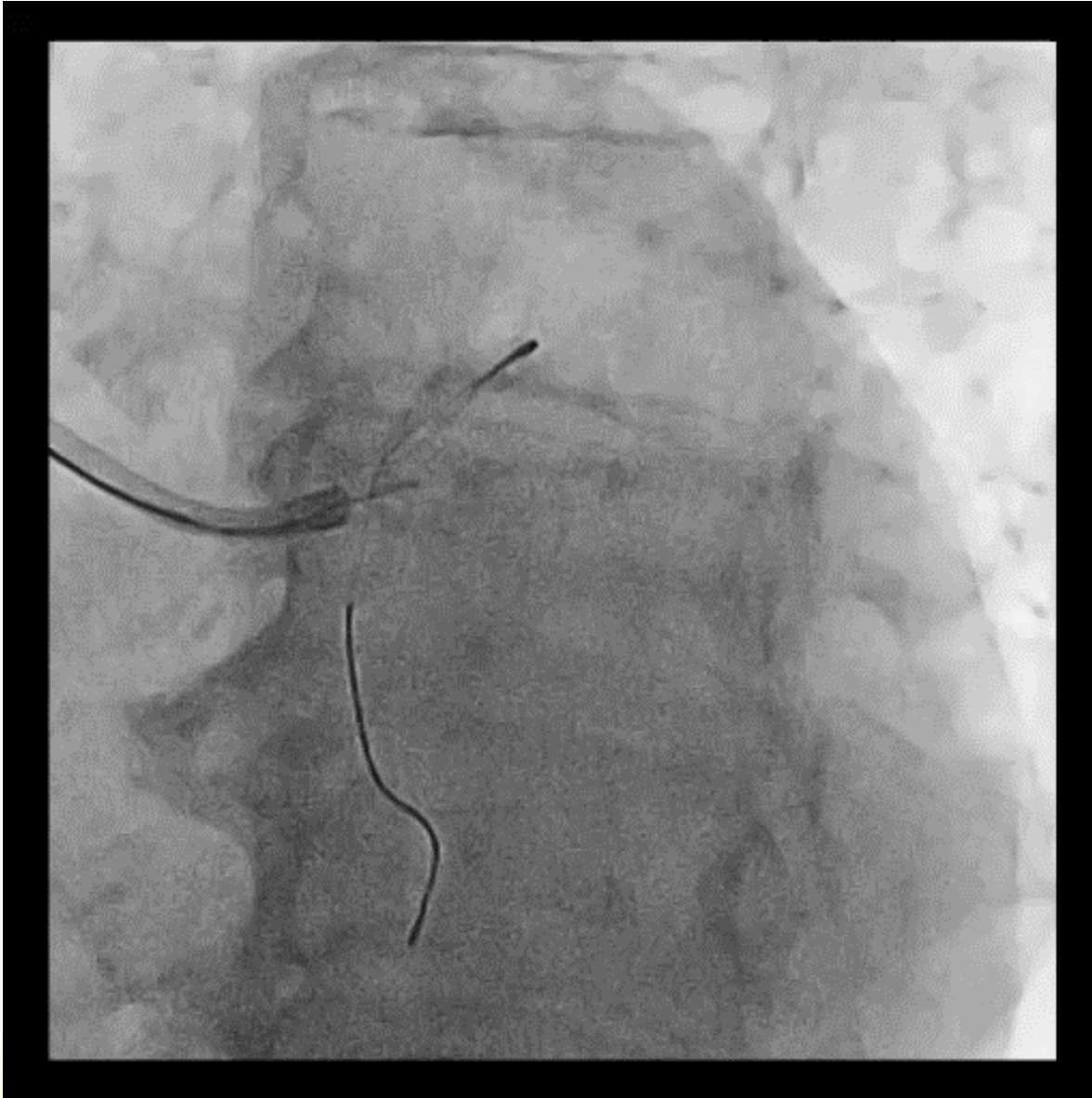
- 1) Evaluation of pre-dilatation result for dissections and cracked fibro-calcific plaques
- 2) Identification of stent landing zone (position and length)
- 3) Reference sizes for each segment to be stented are measured
 - Nominal stent size is selected according to the distal reference size
- 4) Ensure that stent length in proximal MV segment at least is 6 or 8 mm to accommodate the POT balloon



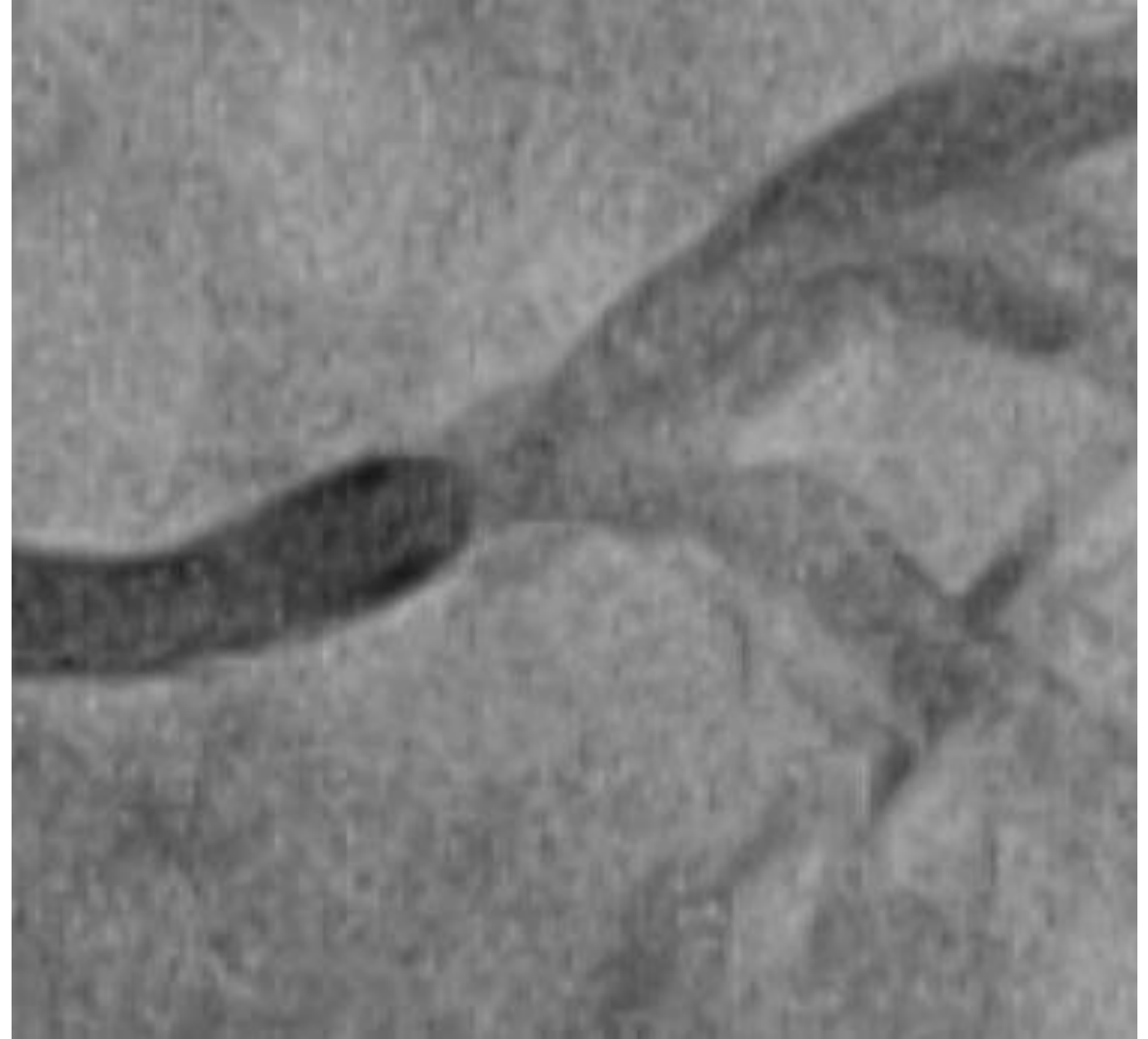


Left main to LAD Stent deployment and POT
Xience skypoint 3.0 x 18mm / POT 4.0 x 8 NC balloon

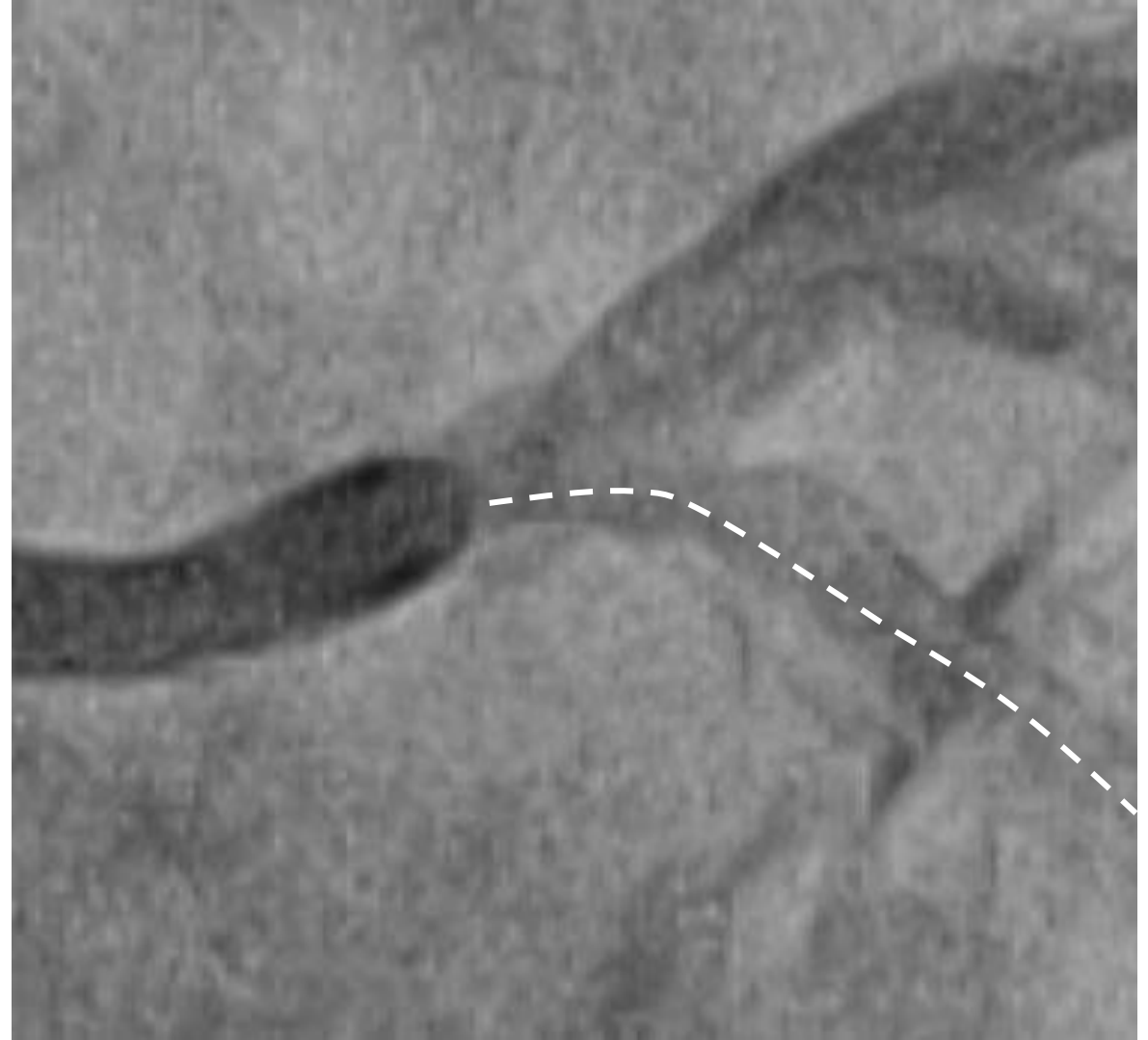
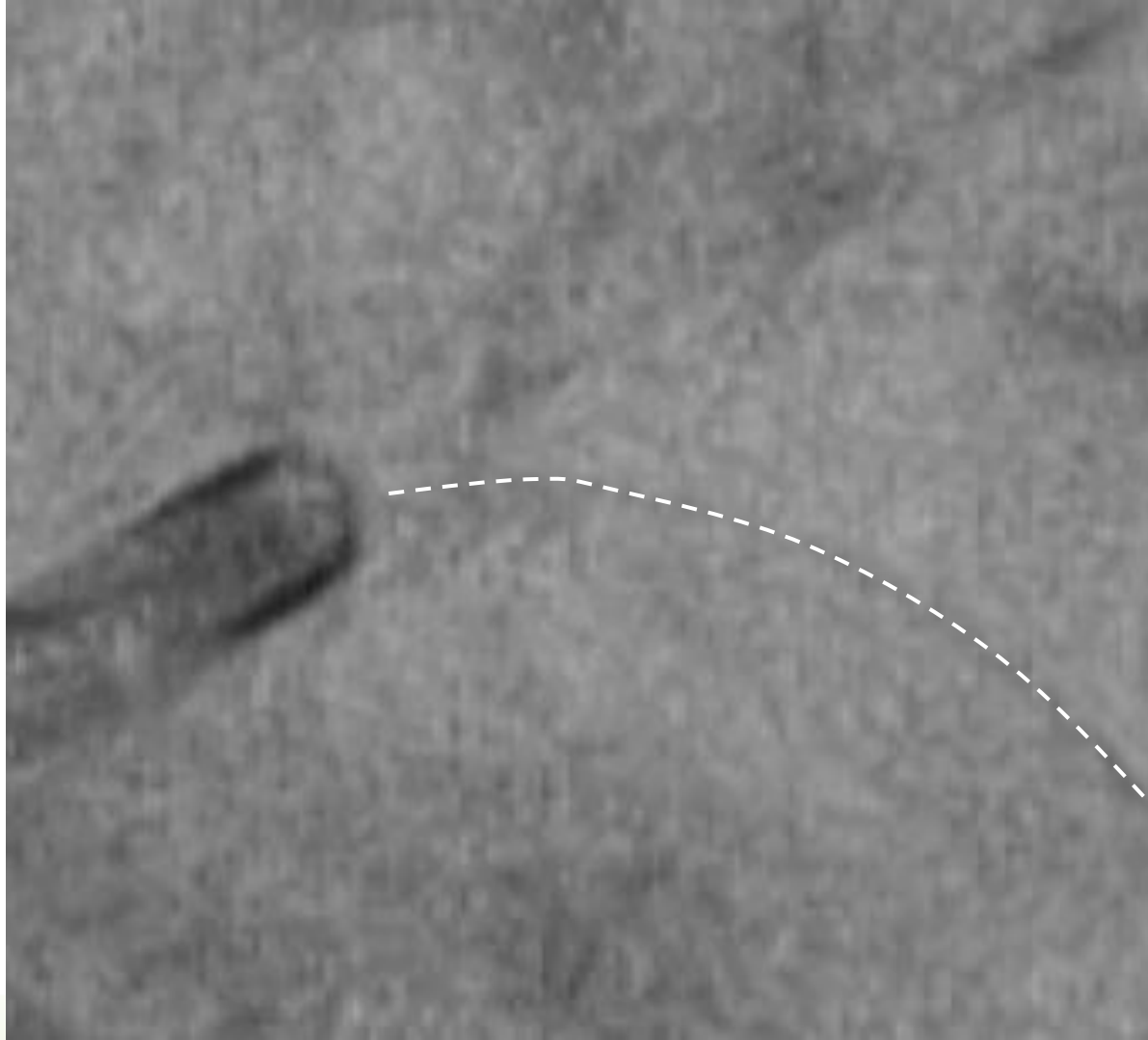
LCX 1st rewiring



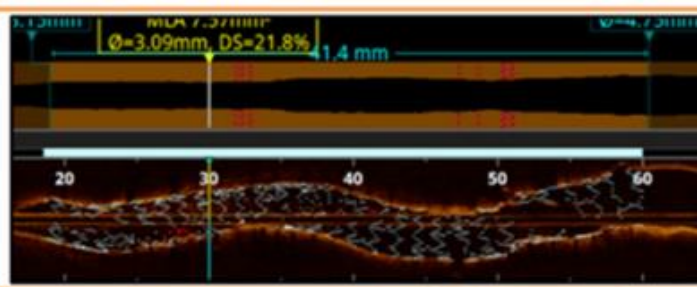
Proximal wiring ? Distal wiring ?



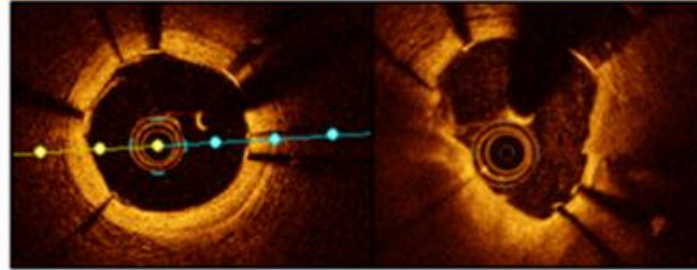
Proximal wiring ? Distal wiring ?



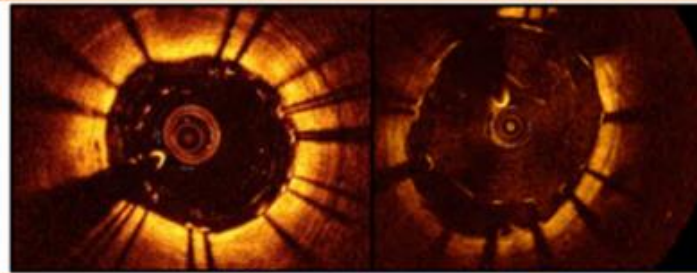
Pre- SB stent evaluation by OCT



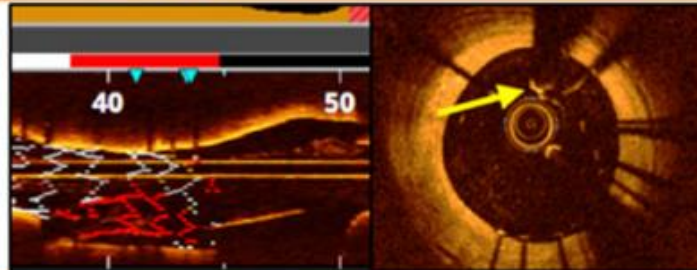
- 1) Full lesion coverage
Exclude residual edge stenosis or major lipid plaques at or near the stent edge



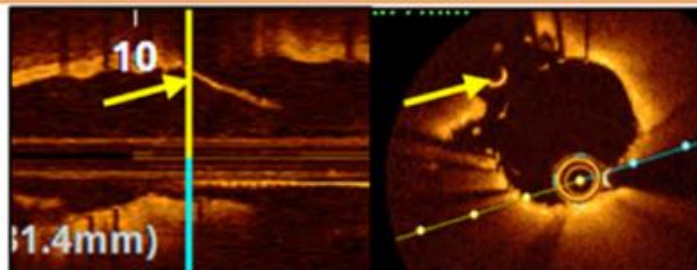
- 2) Expansion
Ensure adequate stent expansion for each segment
Optimal expansion $\geq 90\%$ ref. size



- 3) Stent apposition
Identification of segments with malapposed struts

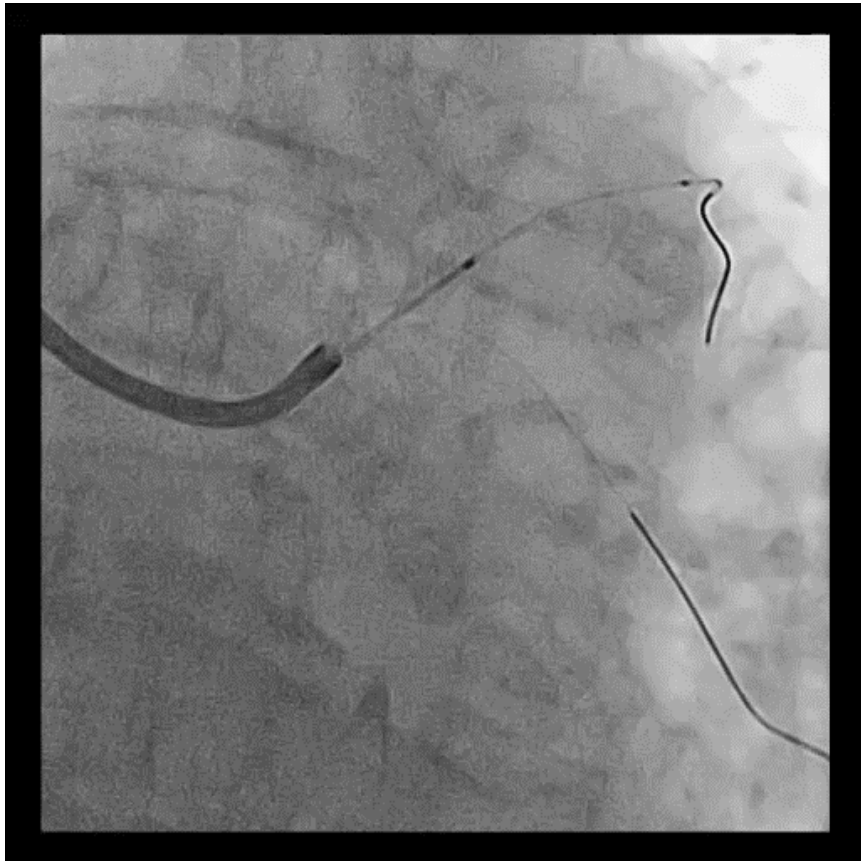


- 4) Abluminal rewiring
Exclude accidental abluminal rewiring

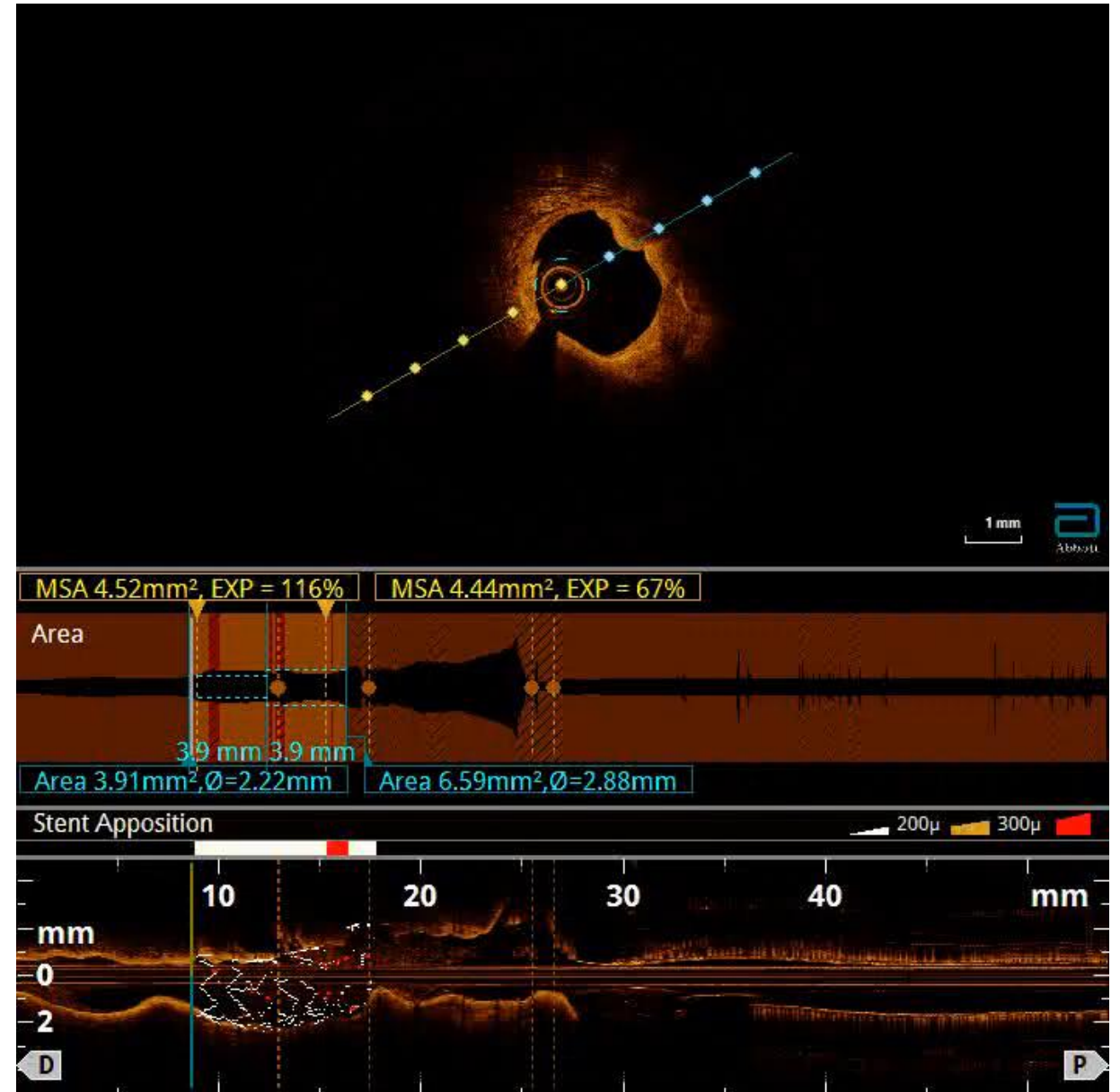


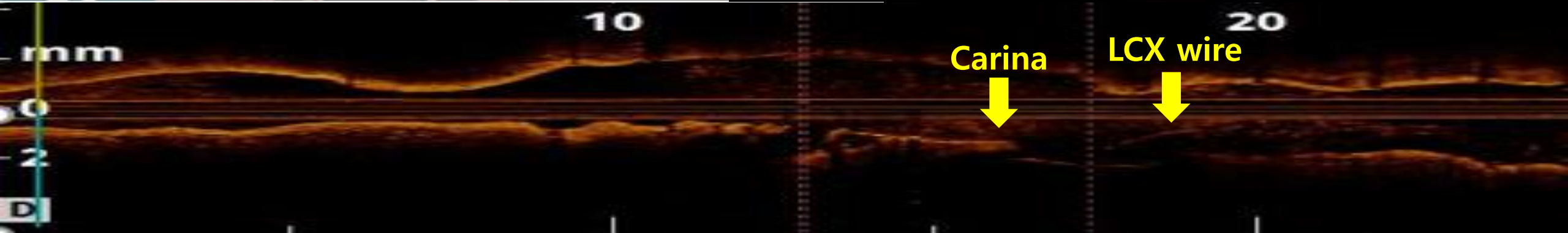
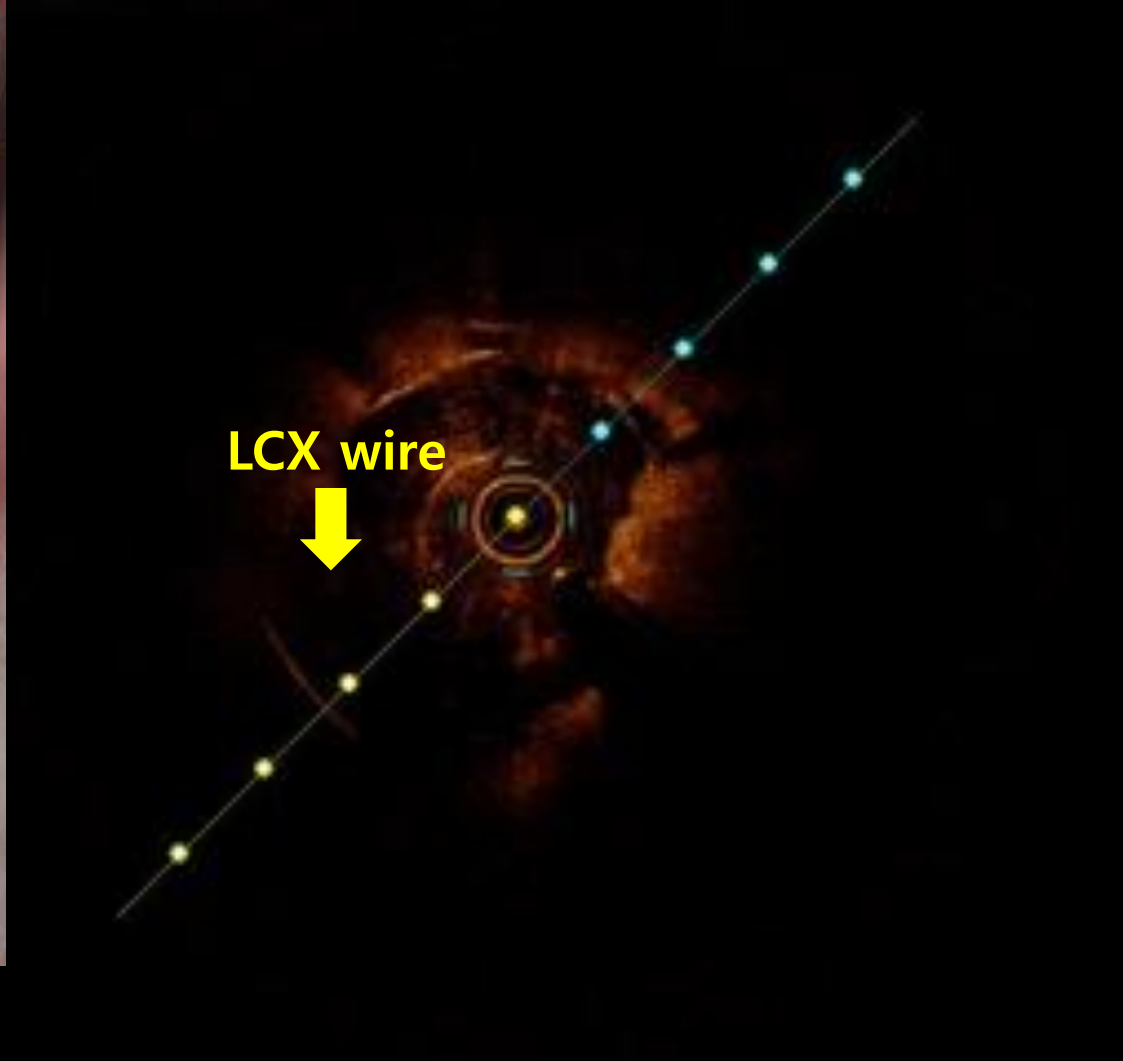
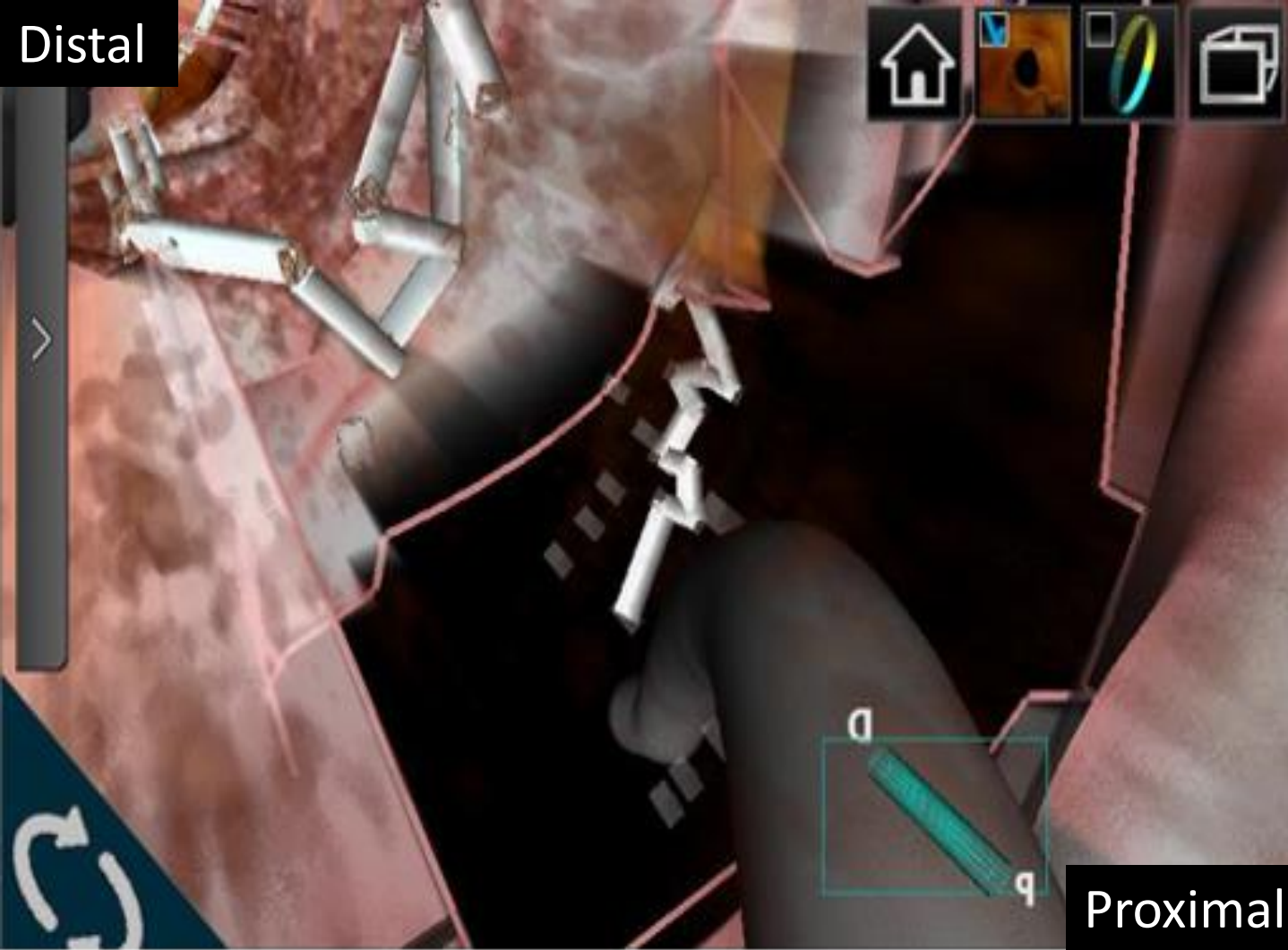
- 5) Wireposition
Wire position is evaluated aiming for distal recrossing in provisional stenting and mid-distal recrossing in two-stent techniques

LAD OCT after 1st LCX rewiring

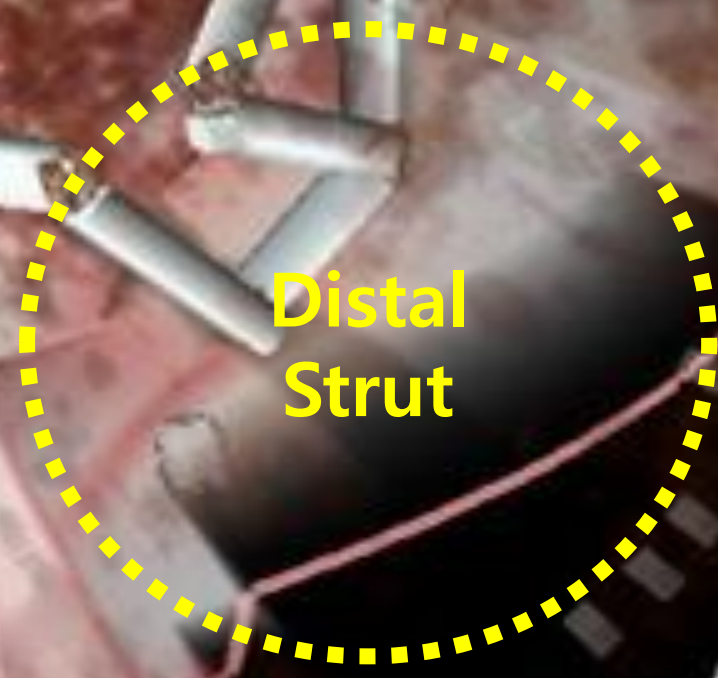


- Full lesion coverage
- Expansion
- Stent apposition
- Abluminal wiring
- Wire position





Distal

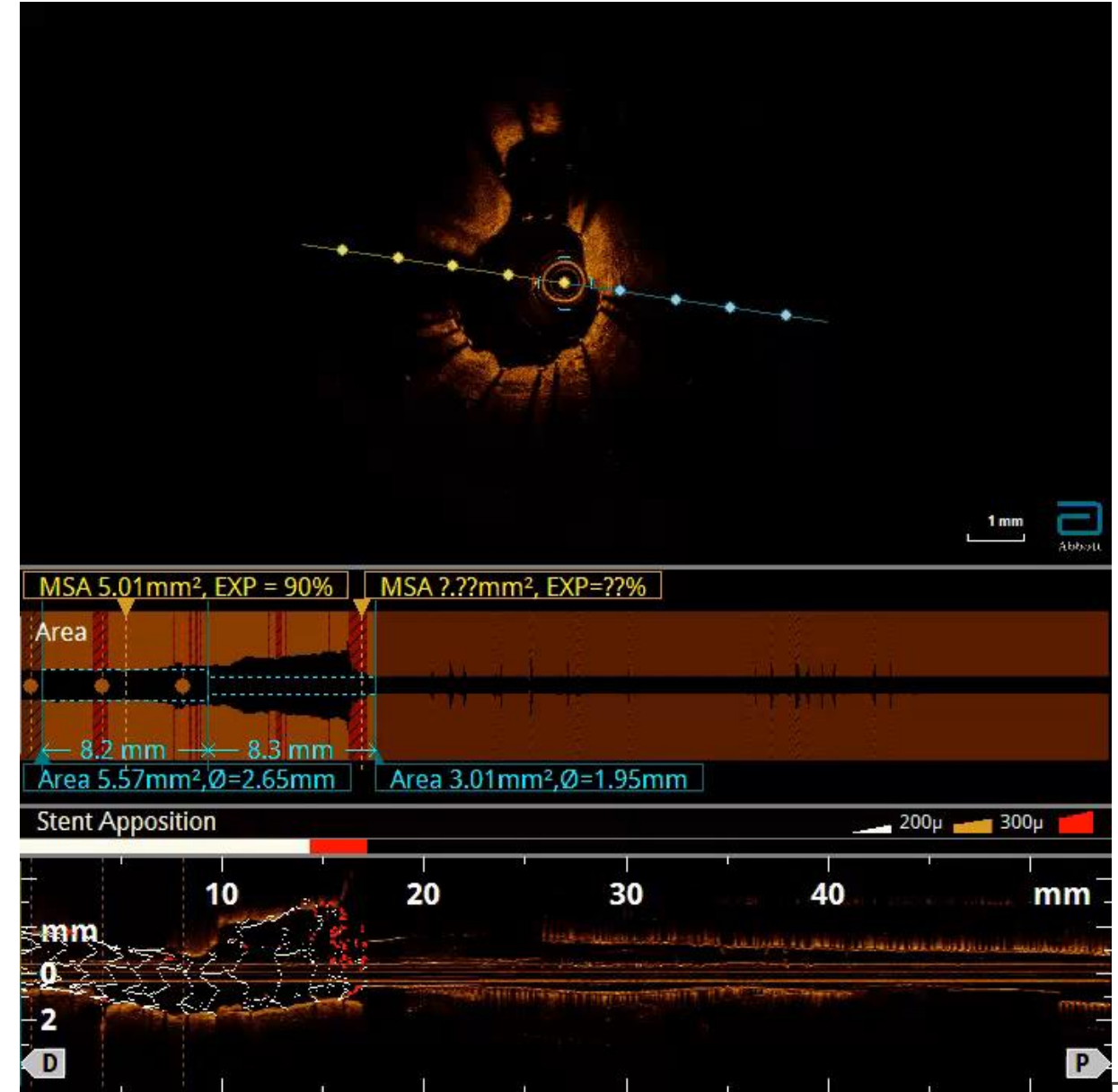
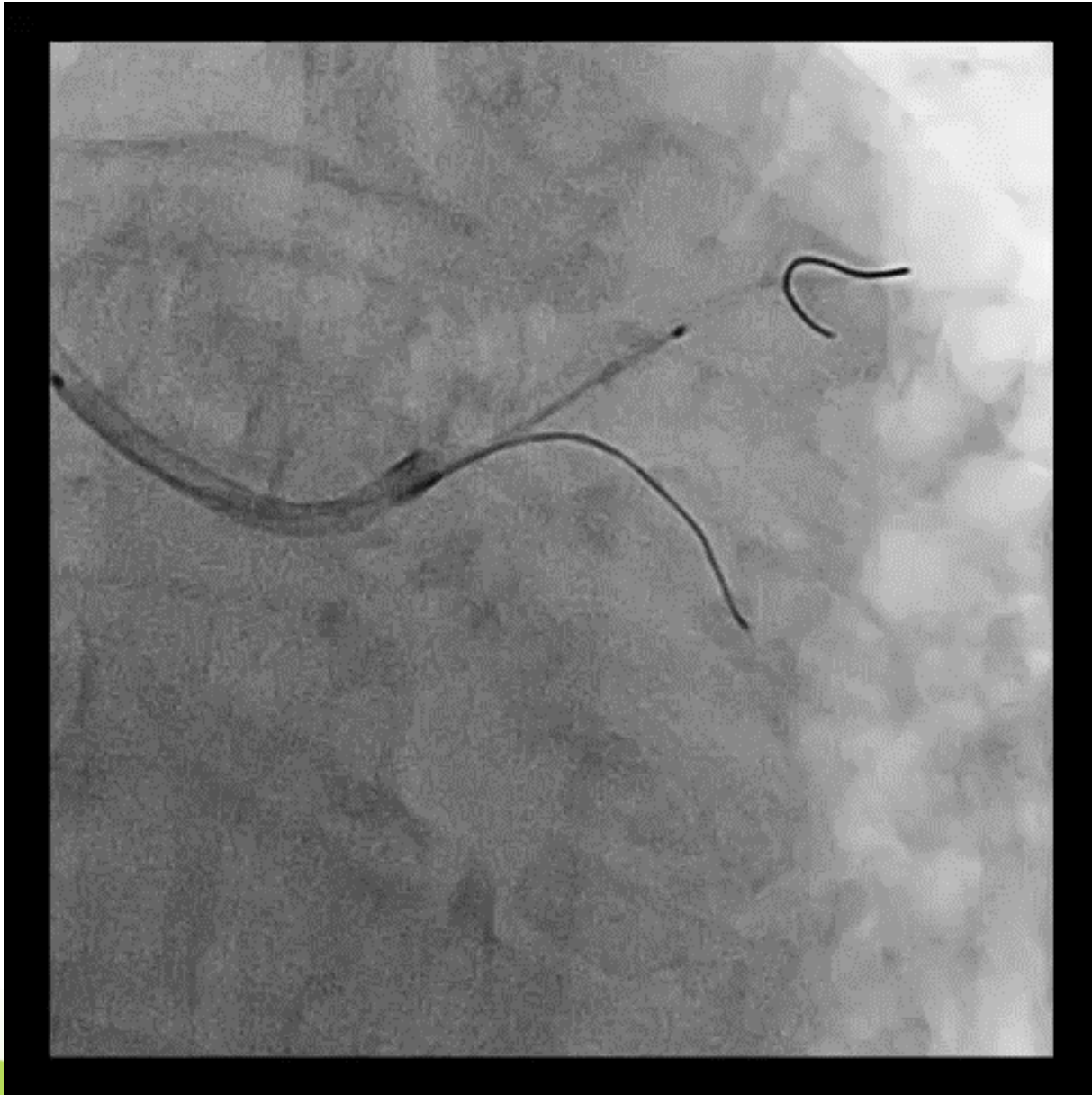


Distal
Strut

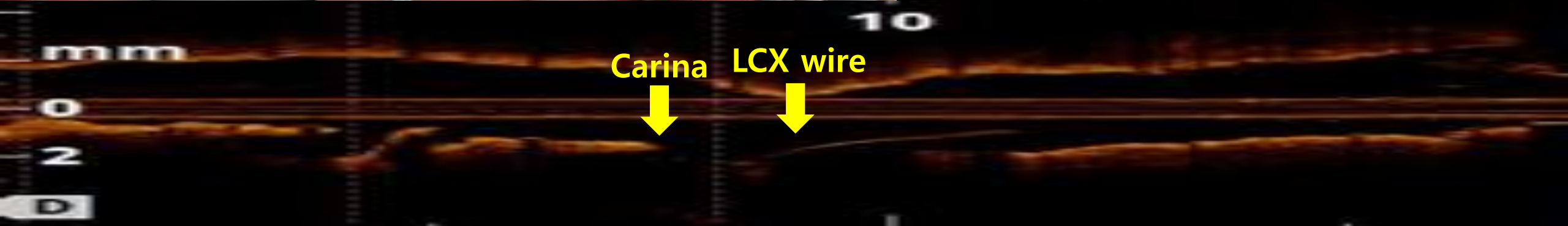
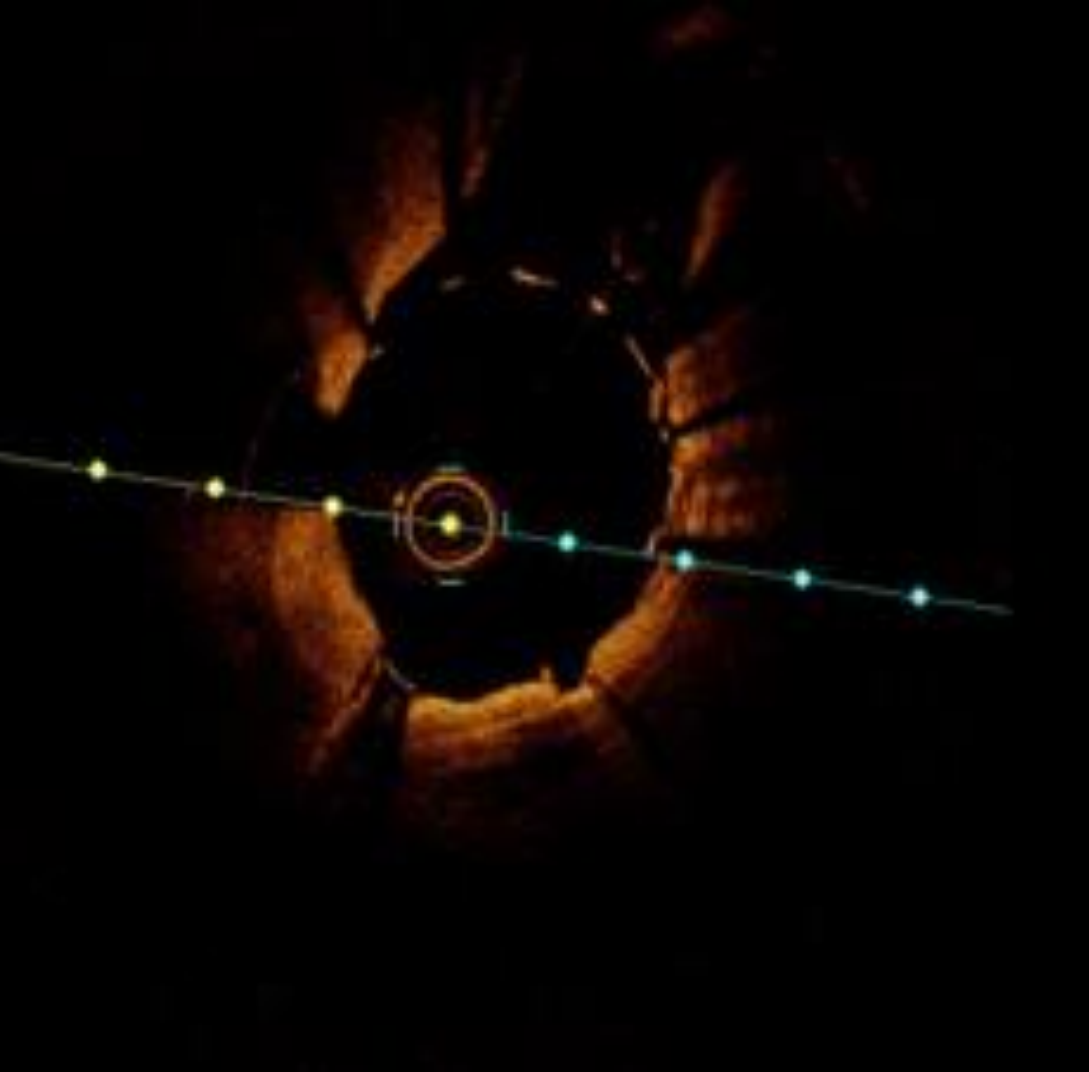
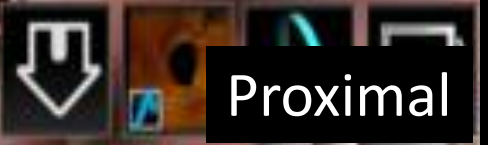
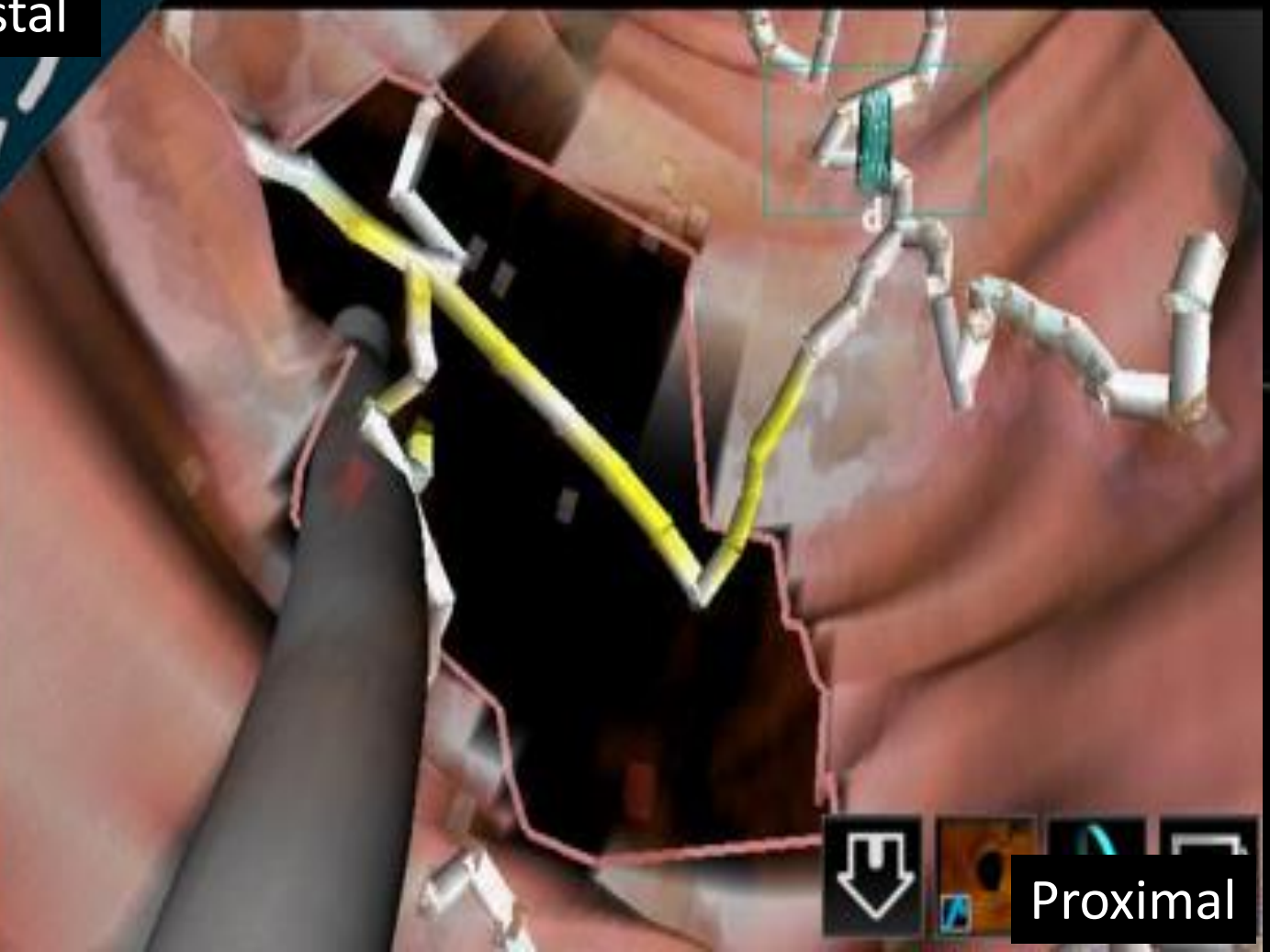


Proximal

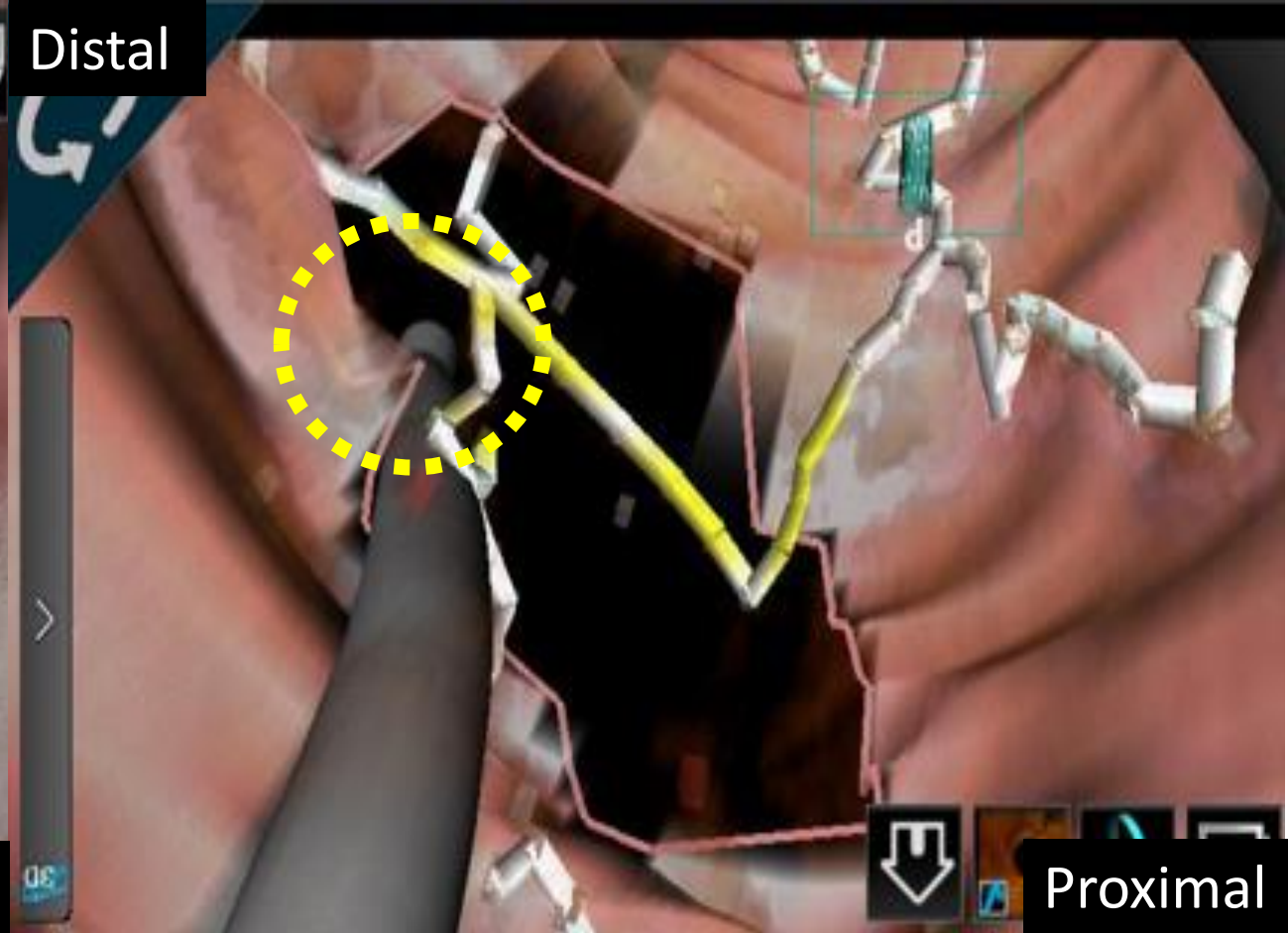
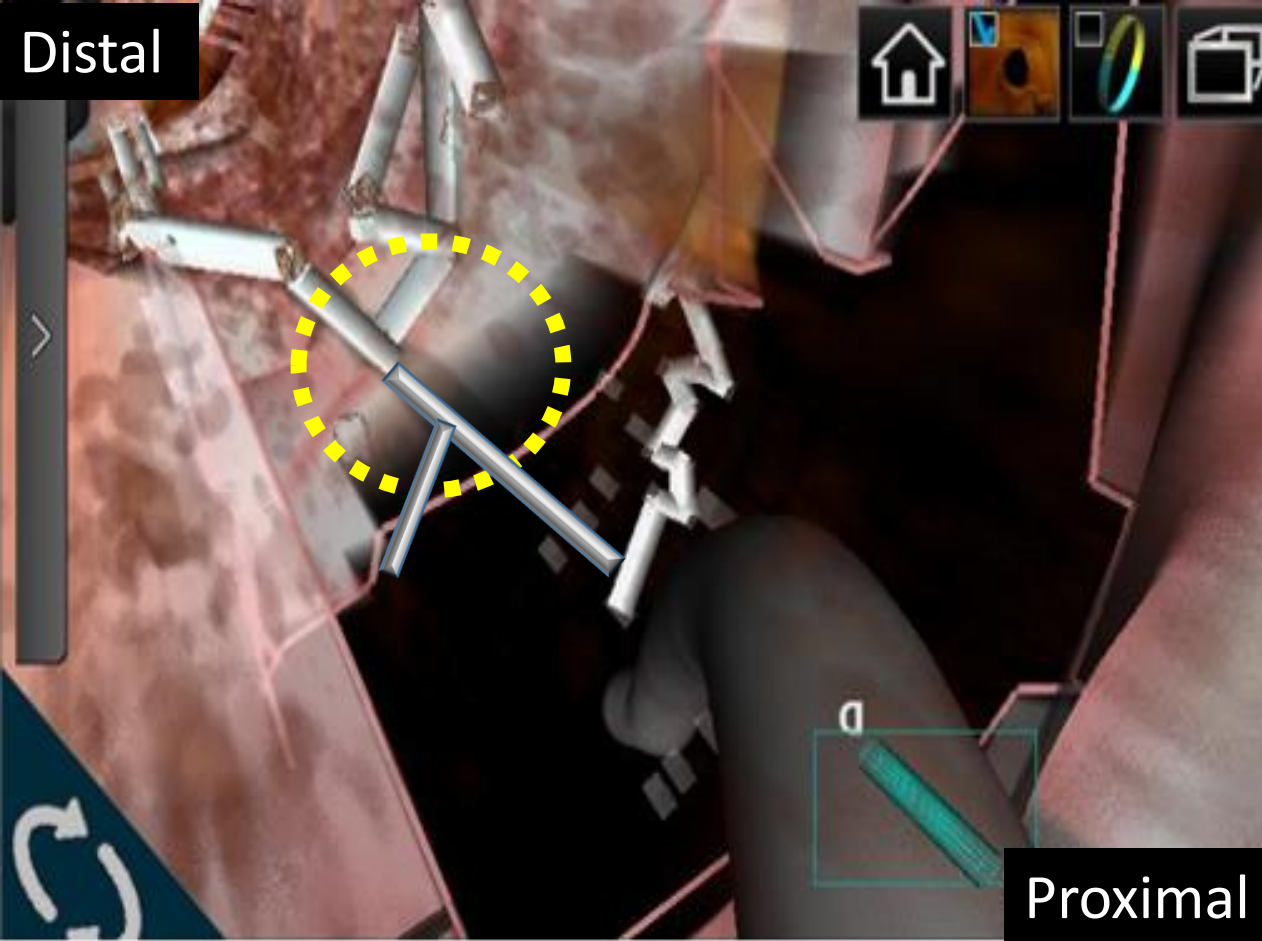
LAD OCT after 2nd LCX rewiring

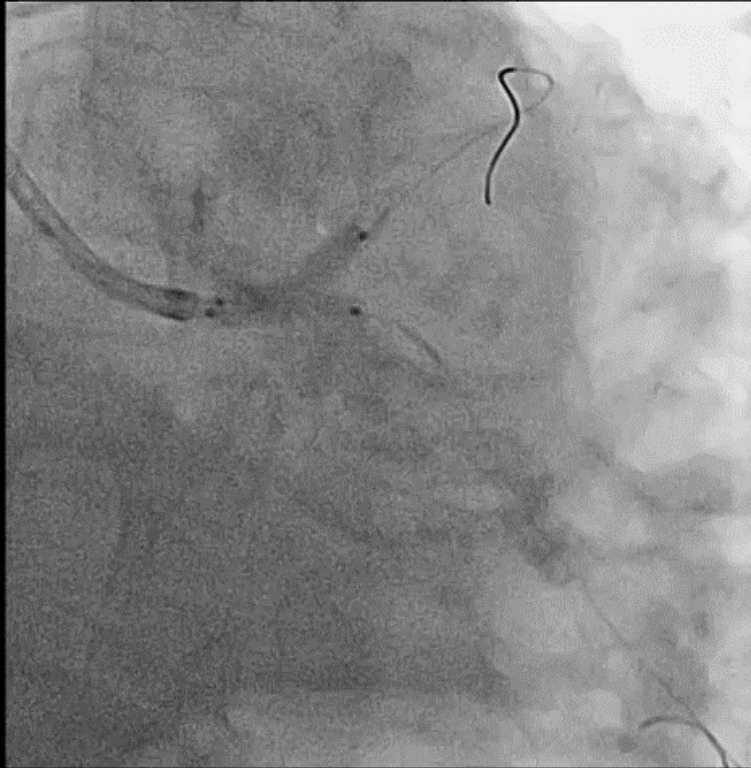
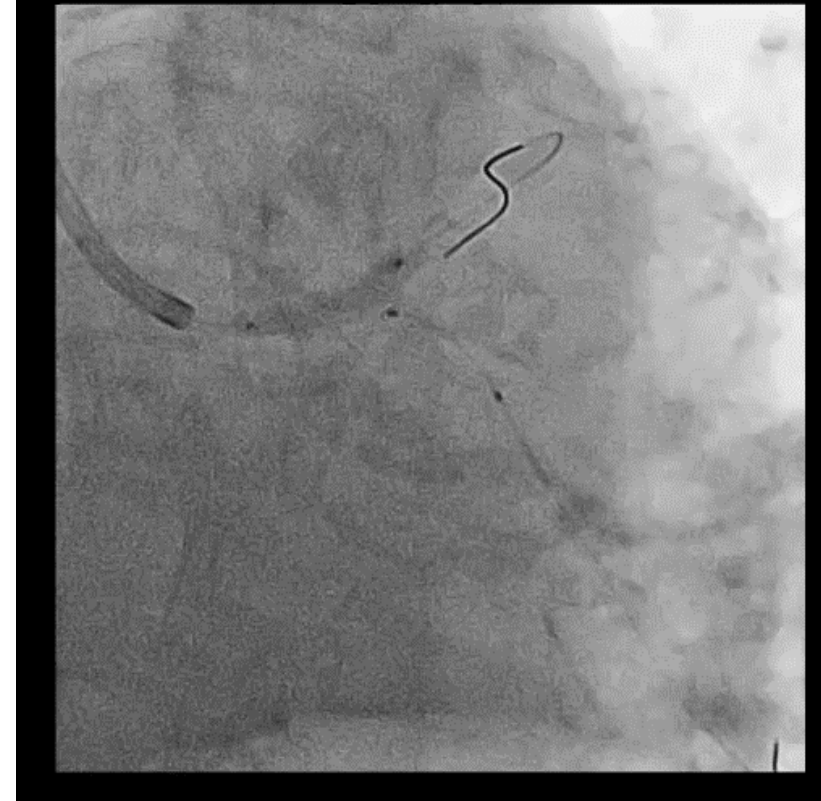


Distal



Comparison of 1st wiring (left) and 2nd wiring (right)



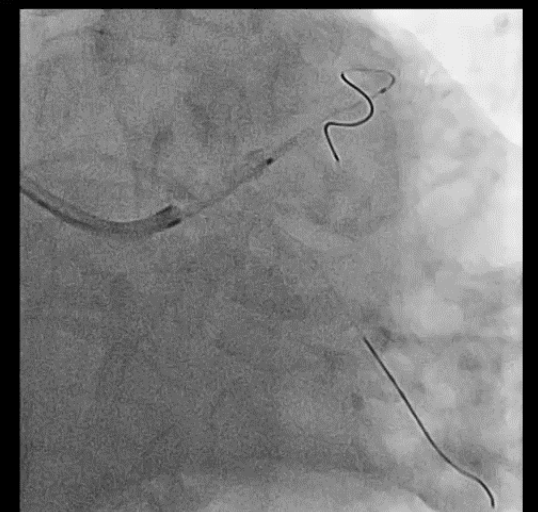
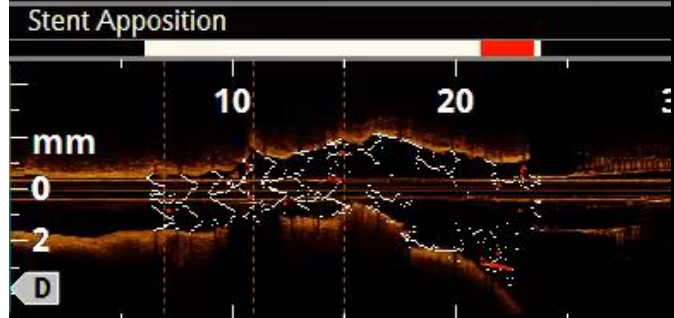
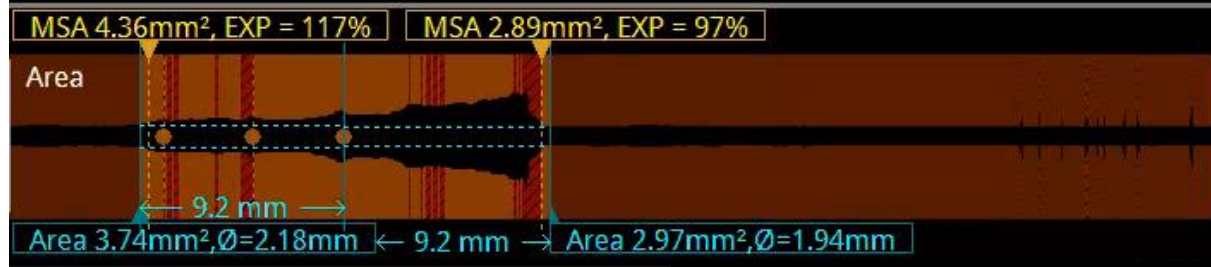
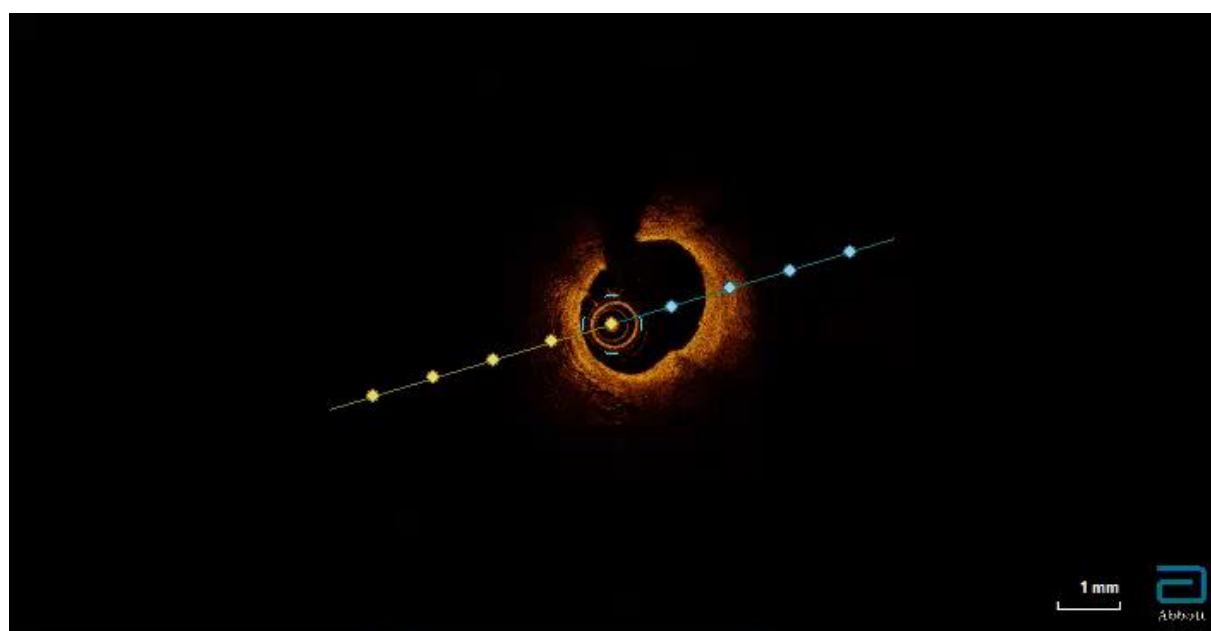


Kissing balloon

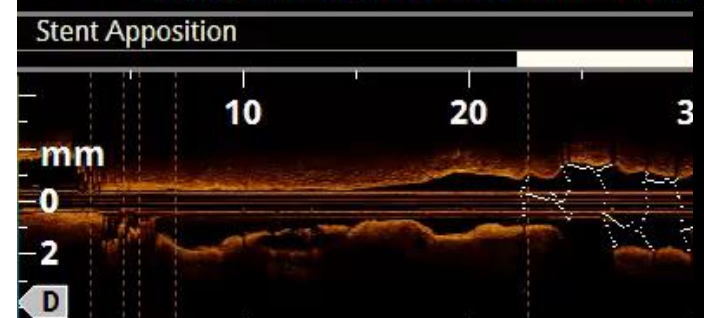
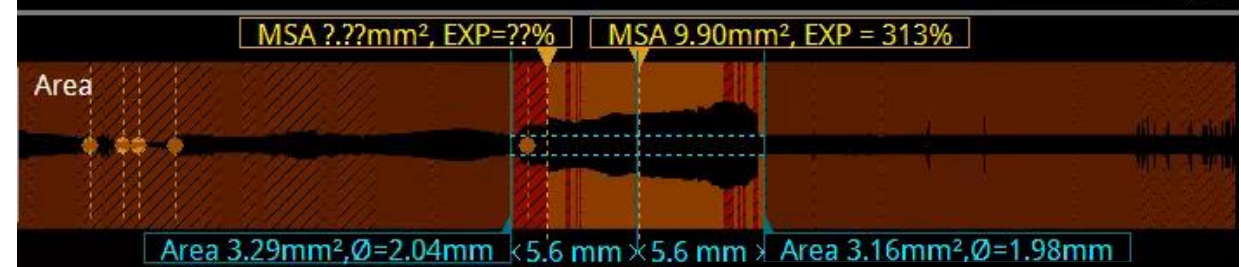
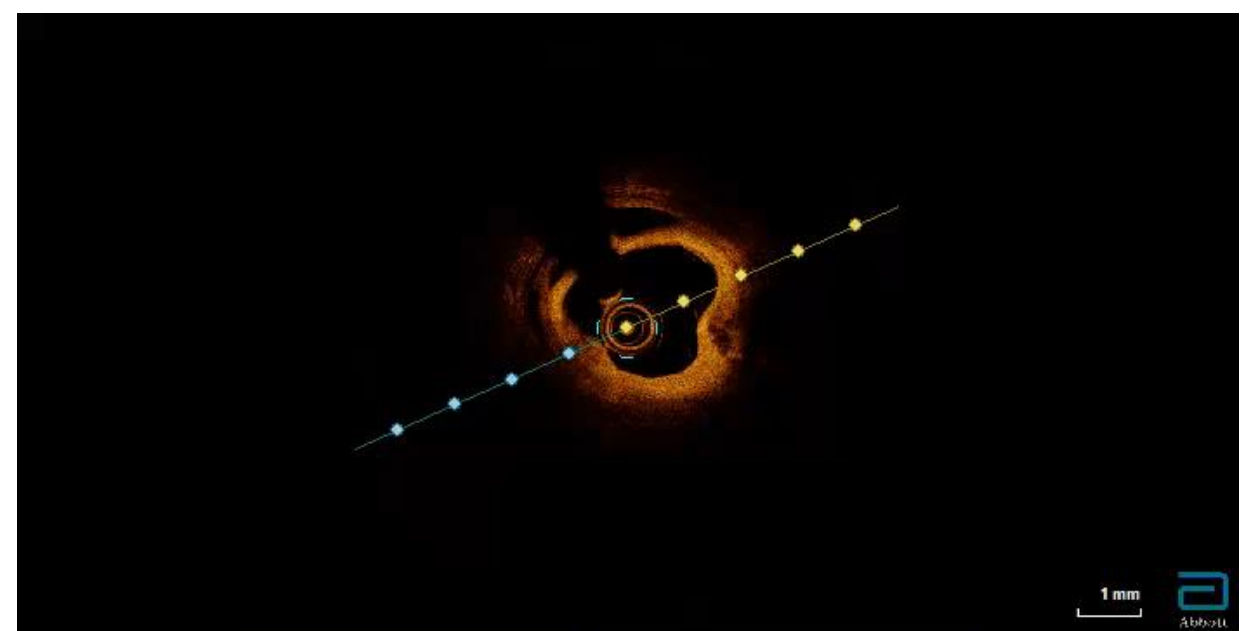
LAD 3.0 x 15mm NC balloon

LCX 2.5 x 15mm NC balloon



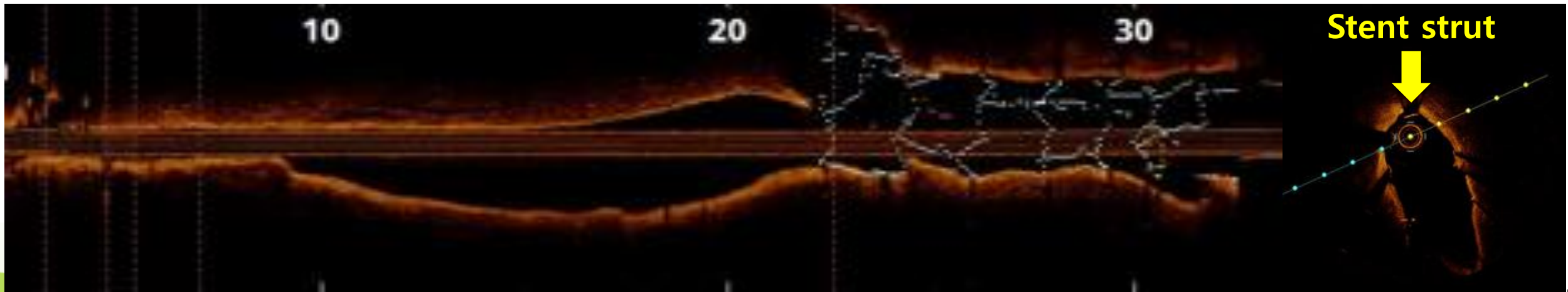
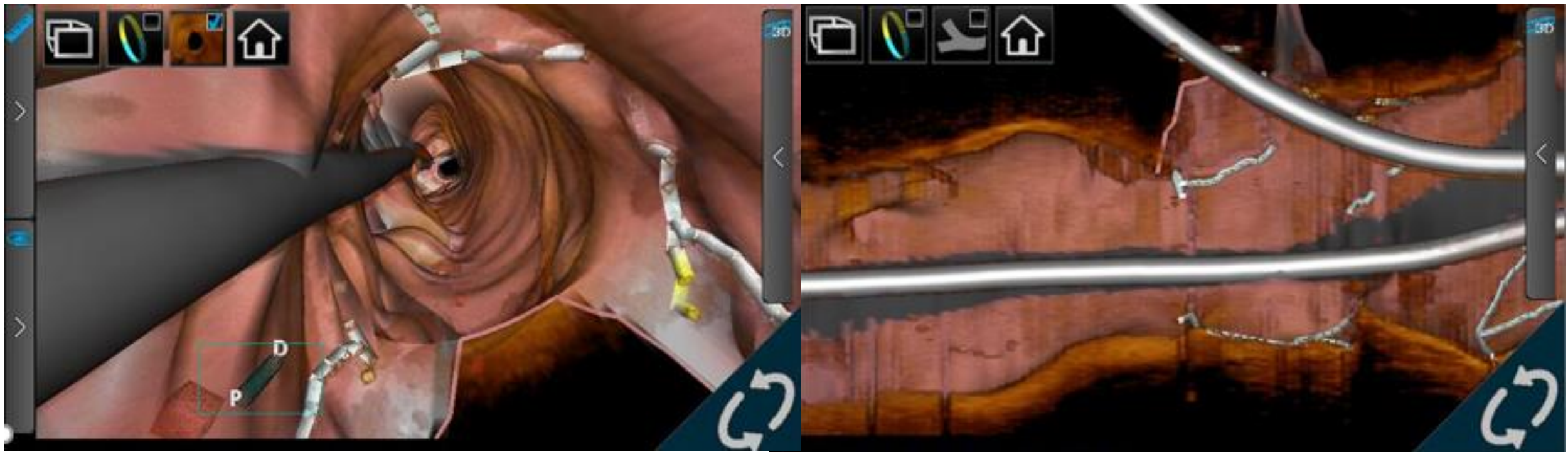


LAD OCT



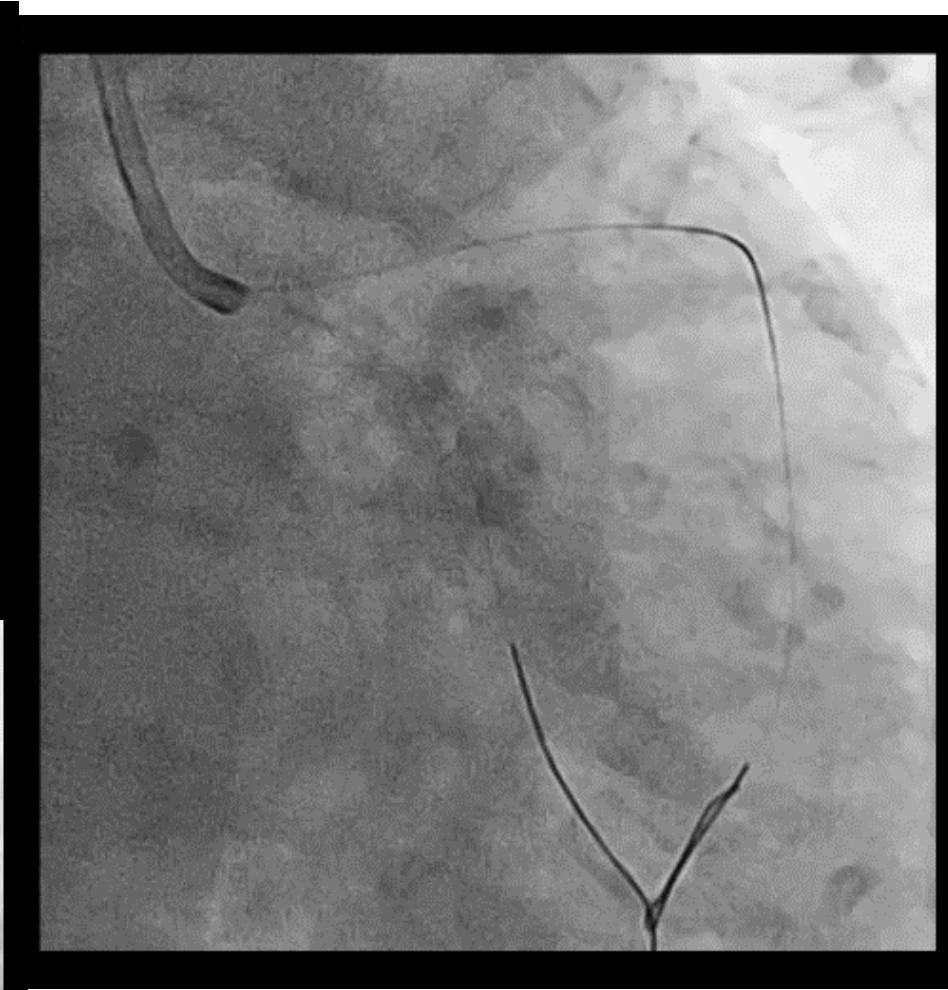
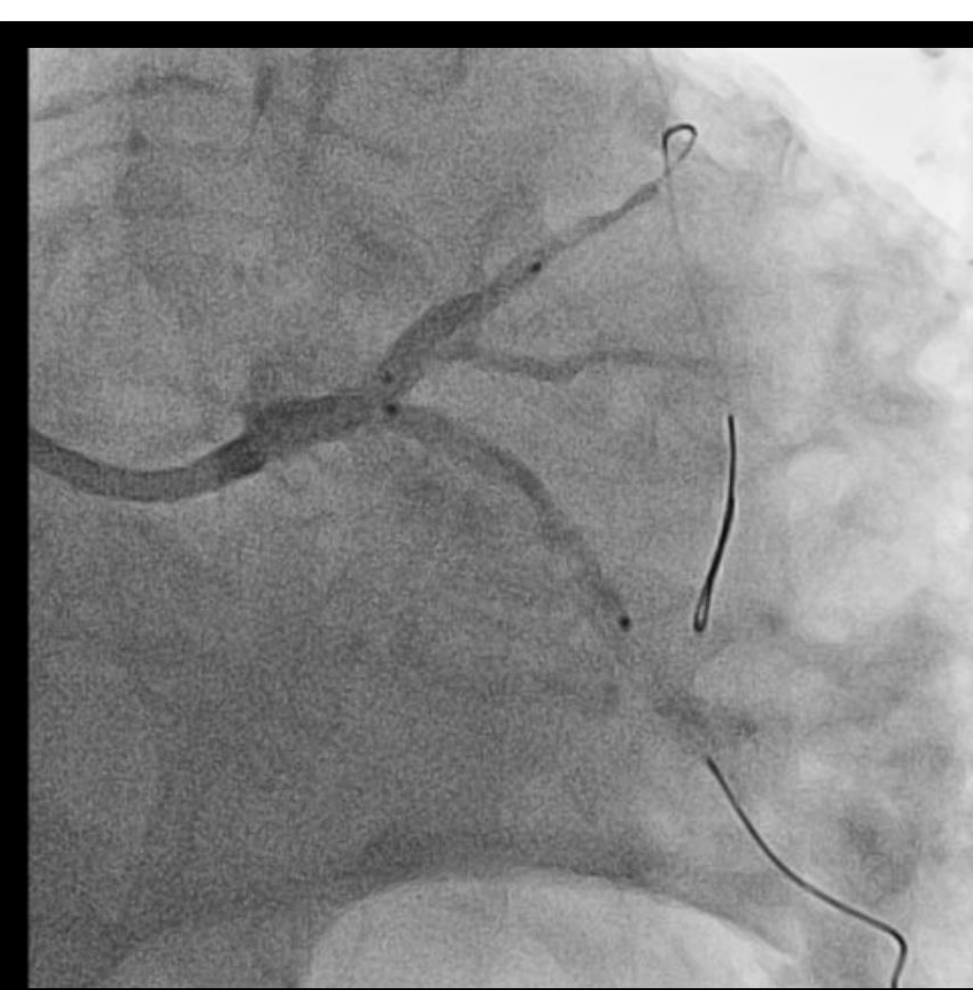
LCX OCT

LCX OCT : Cover of LCX wall opposite LAD



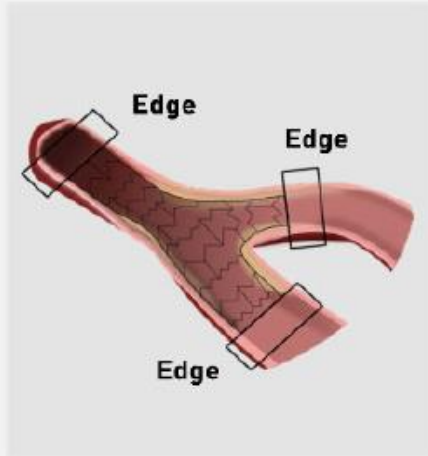
T-Stent(2.75 x 23mm)

Final KBT(Stent balloon with 3.0 x 15mm NC balloon)



Criteria for optimization in OCTOBER trial

Edge segments (5 mm)



Residual stenosis
Less than 30% diameter stenosis



Edge dissections
No edge dissections
1) visible by angiography, or
2) located in residual edge stenosis of more than 30% DS or a lumen smaller than 4.5 mm²



Lipid plaque
No presence of a major lipid plaque spanning more than 180° of the edge segment circumference



Ruptured plaque
No presence of one or more plaque ruptures in the edge segment

Stented segments



Rewiring
Wire passing through a strut cell in front of the mid or distal part of the ostium.
No unintended abluminal rewiring



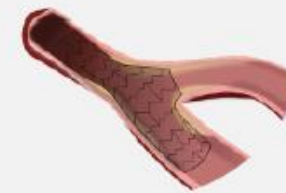
Stent malapposition
No malapposition



Accidental crushed stent segments
No unintended major distortion or crush of implanted stents

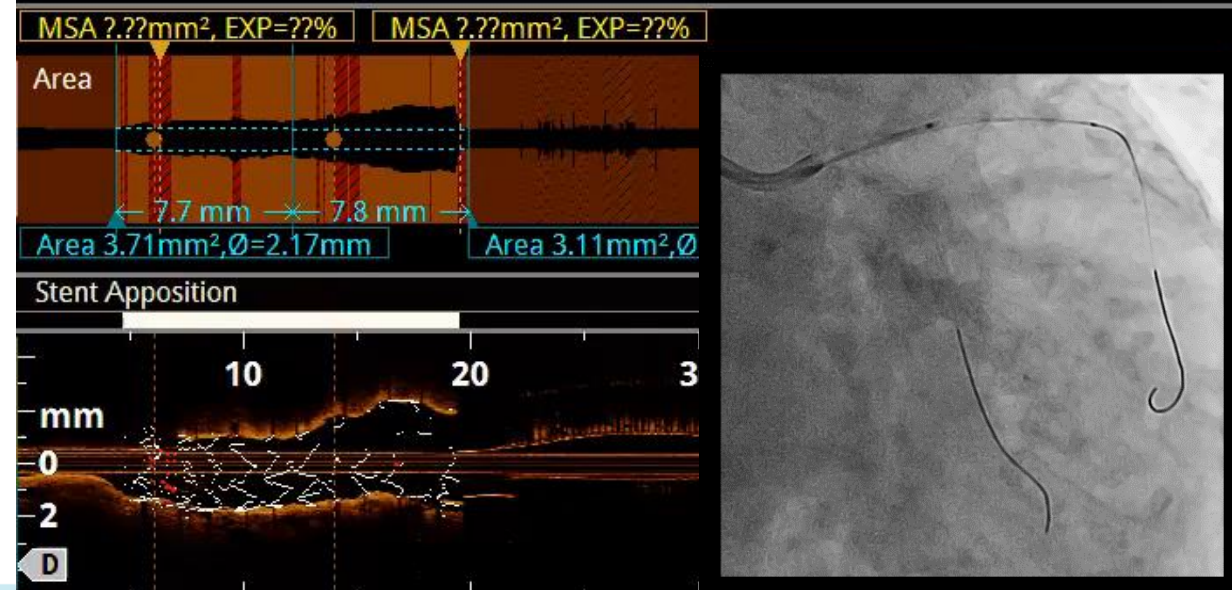
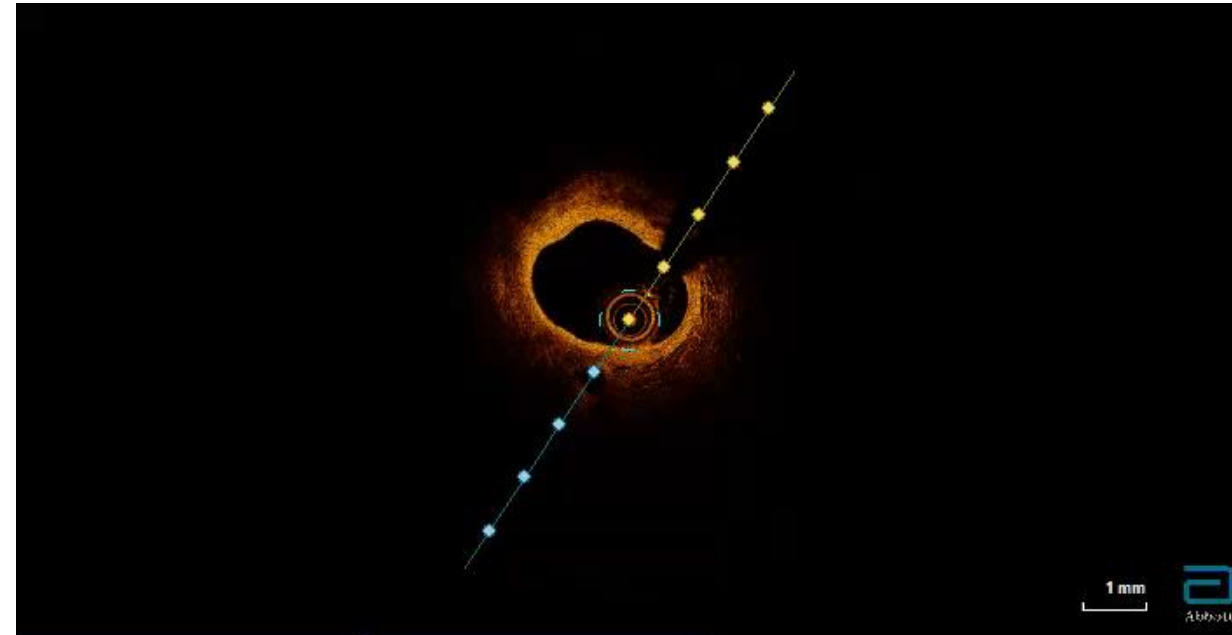
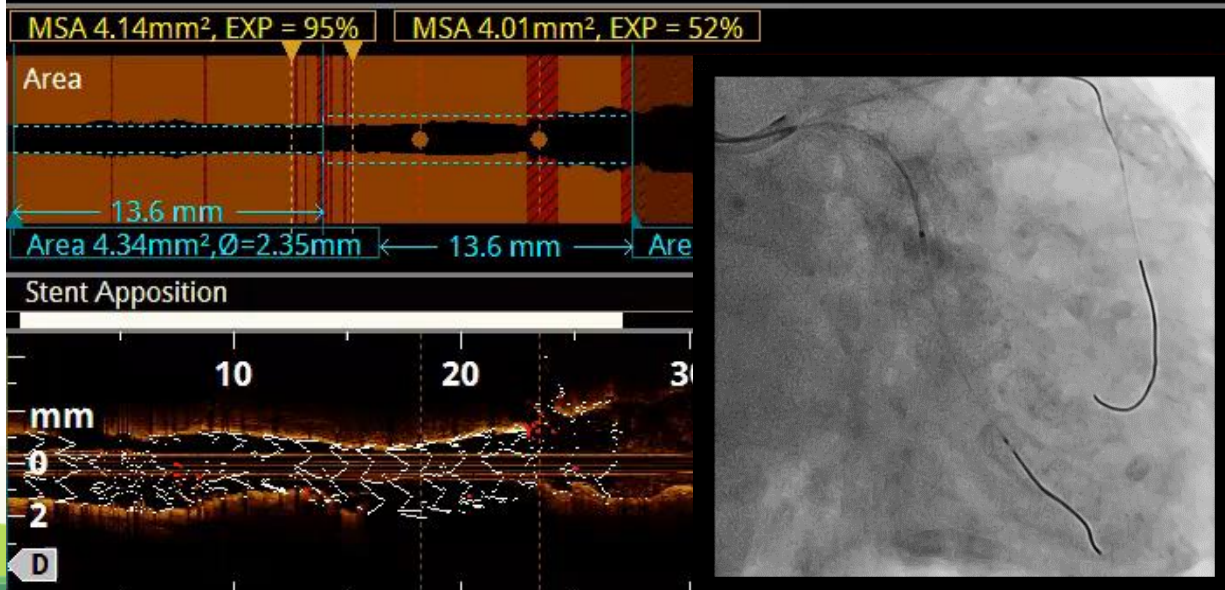
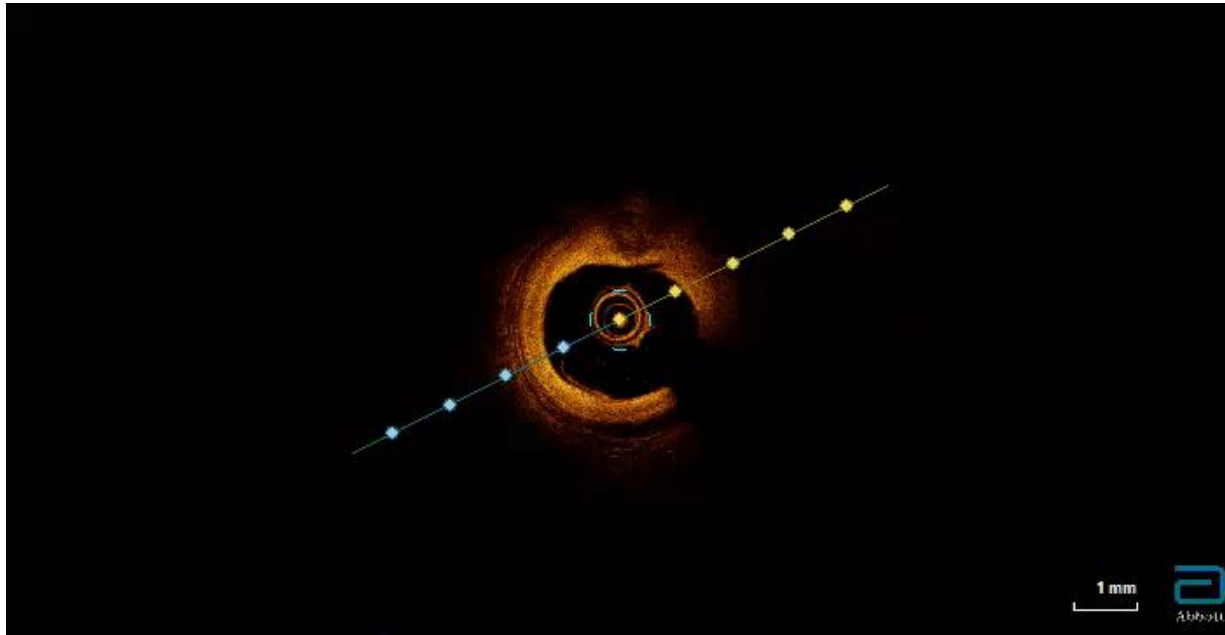


Stent expansion
Stent diameter \geq 90% of the corresponding segment's reference diameter

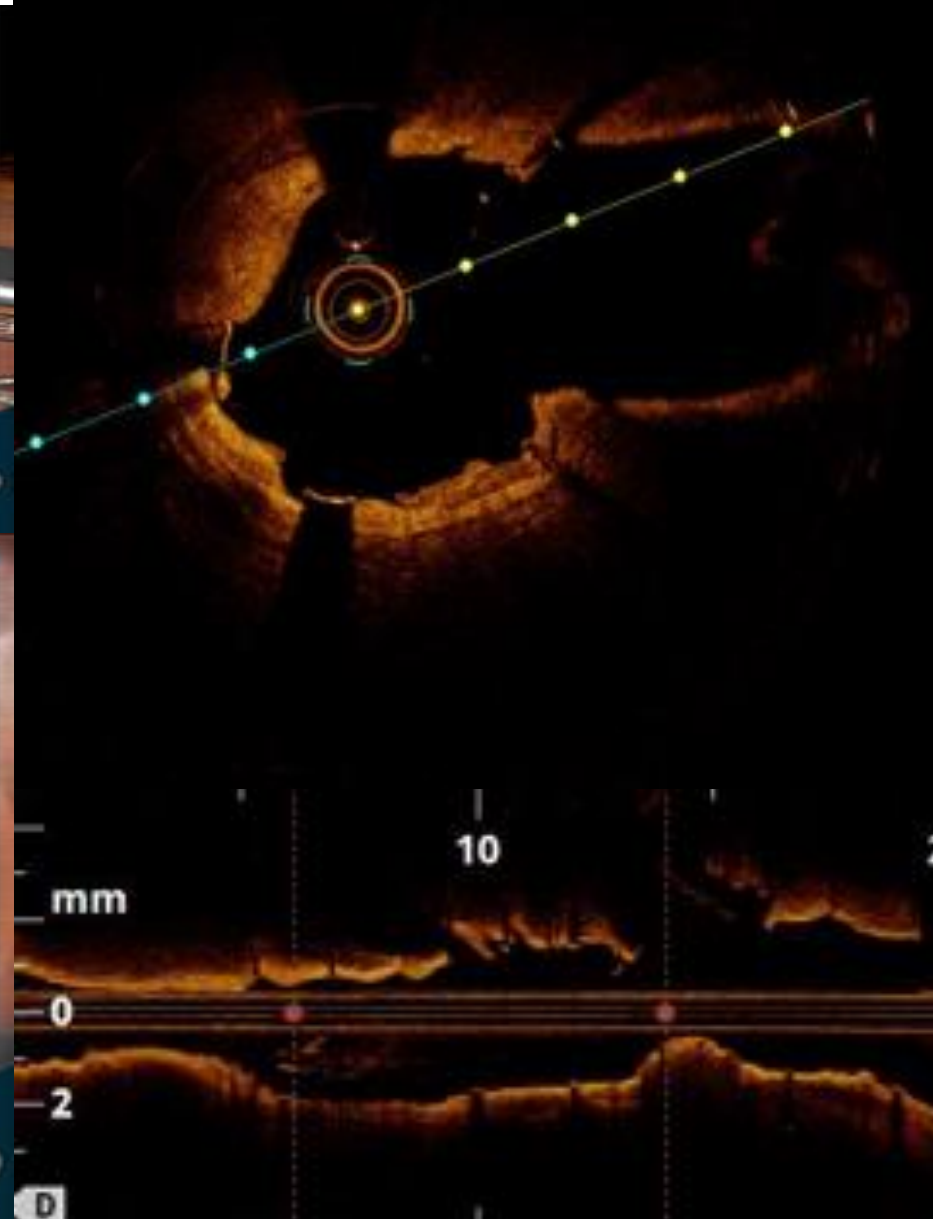
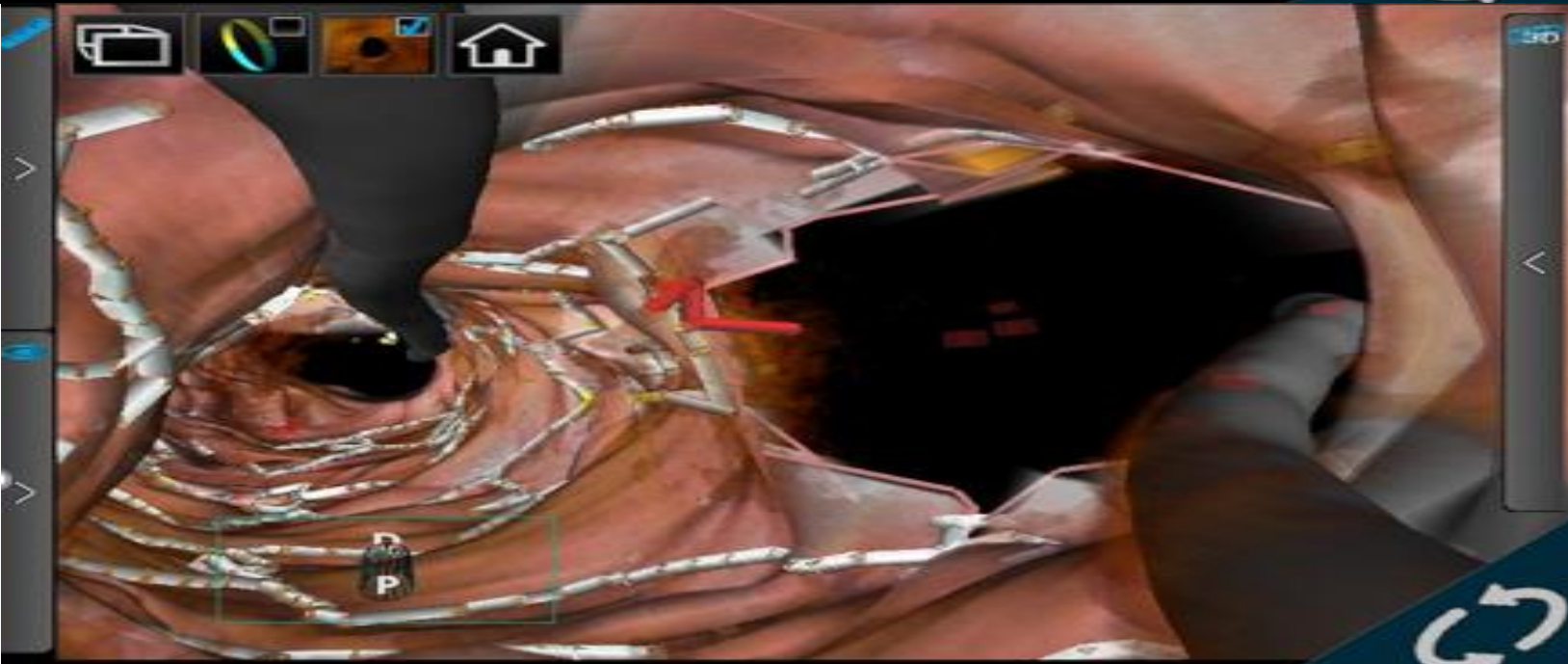
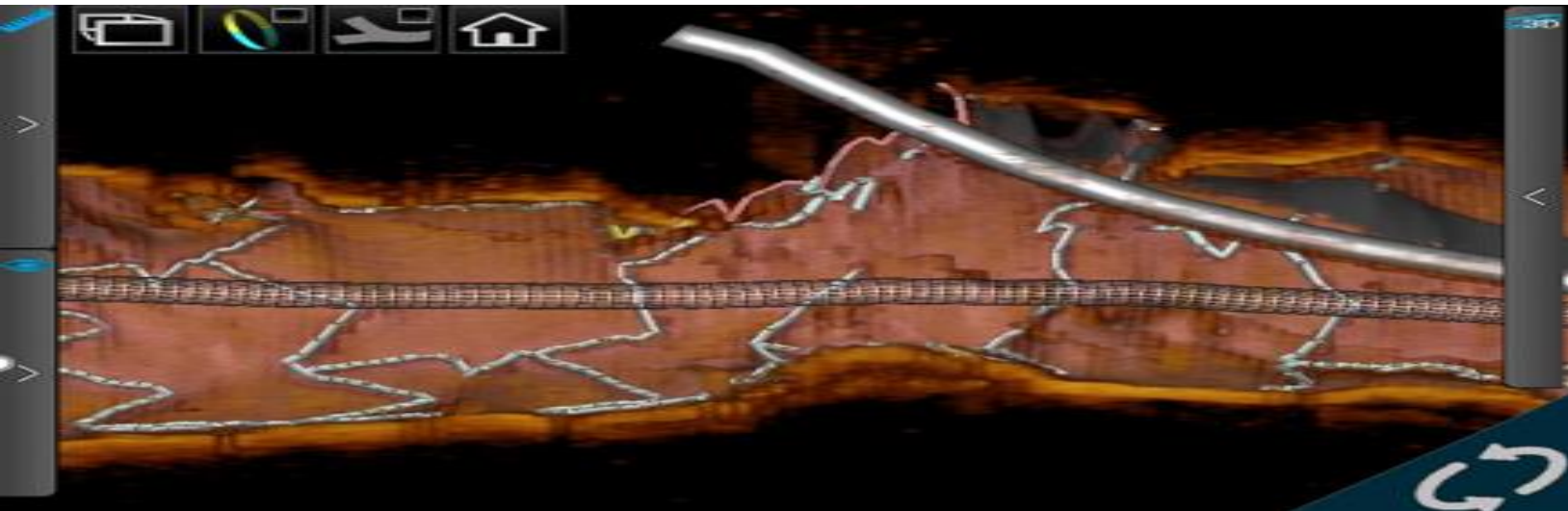


Side branch ostium in one-stent technique
Minimal lumen diameter \geq 50% of the reference diameter

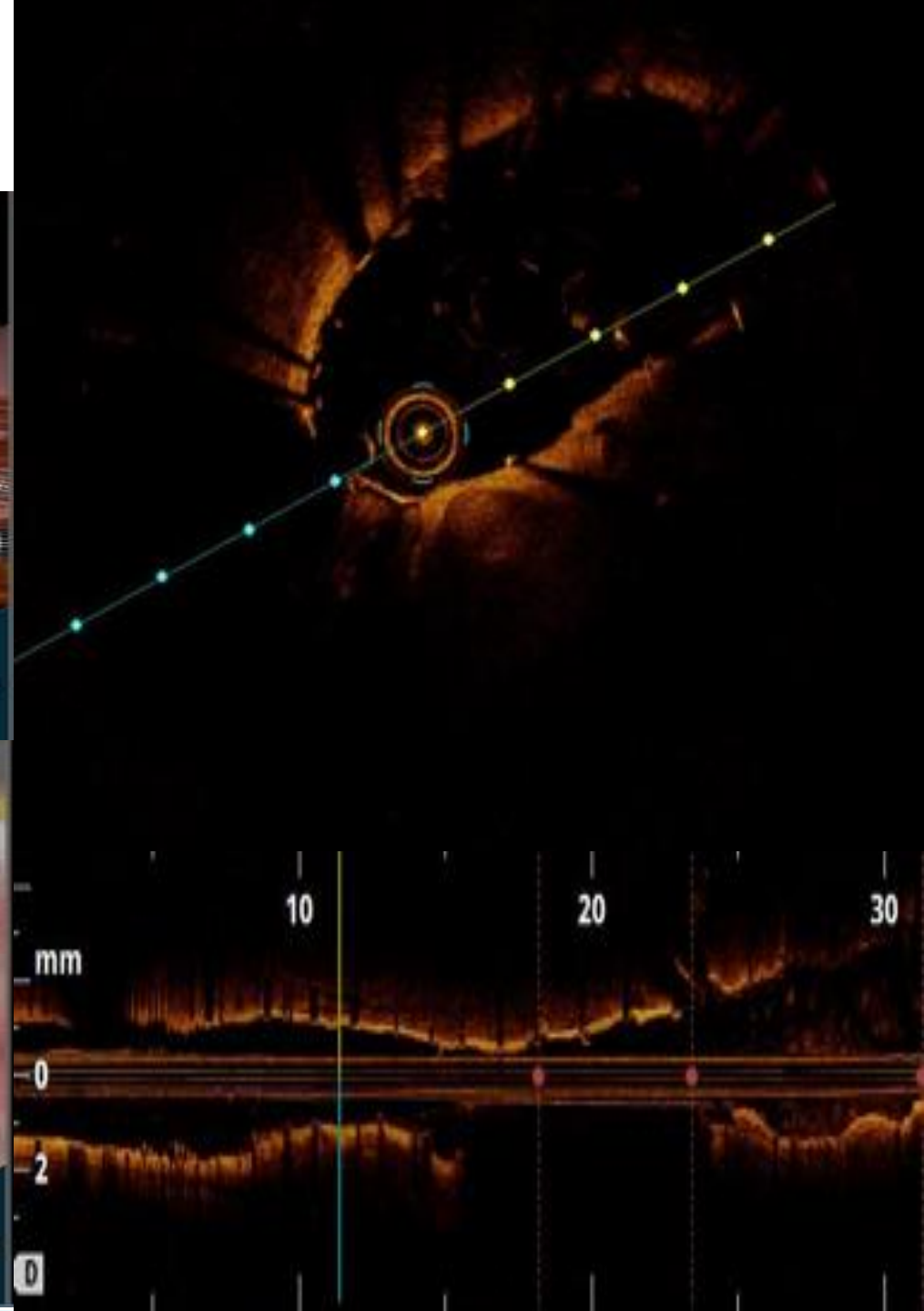
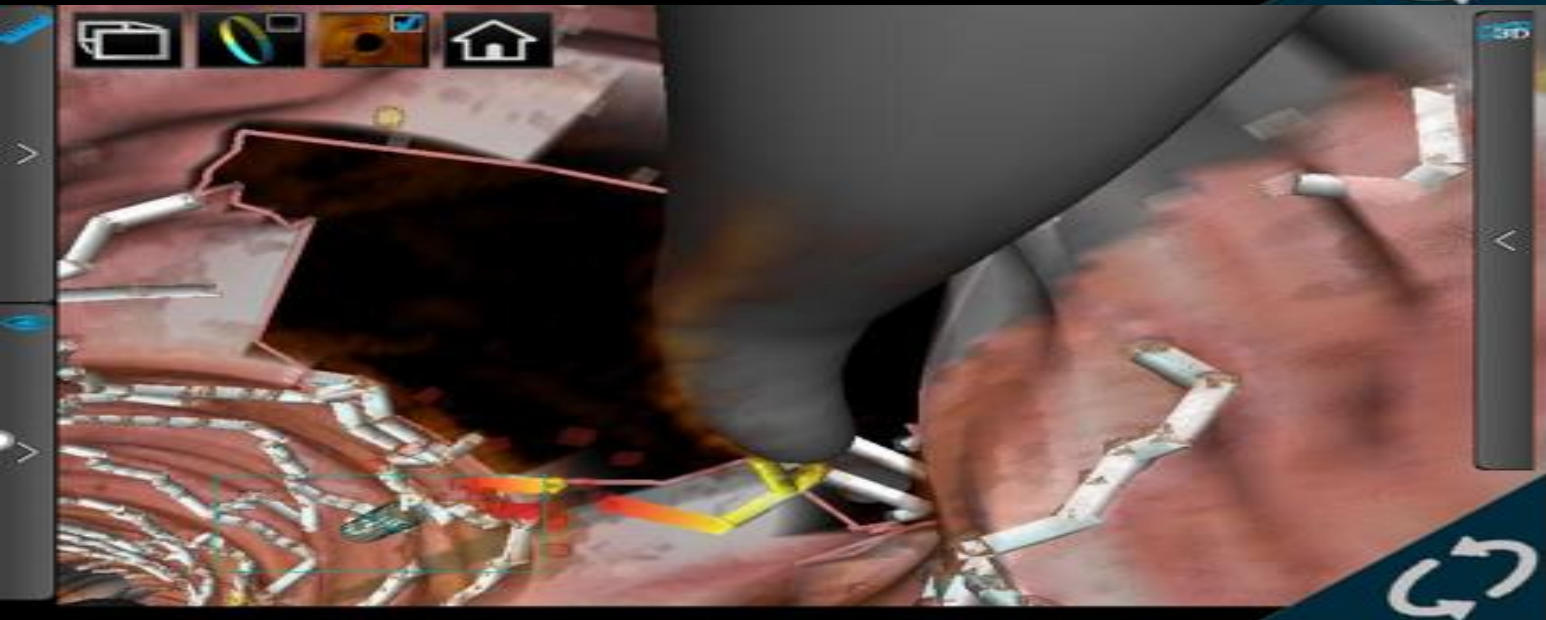
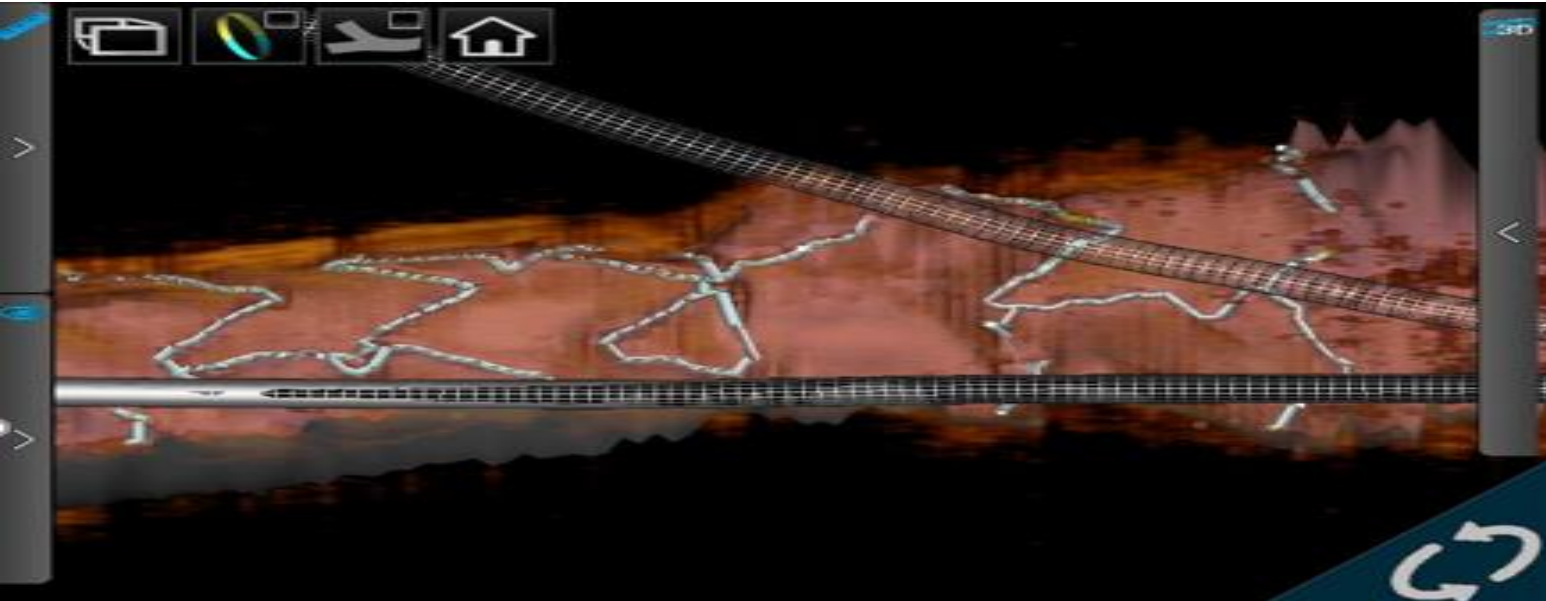
Final OCT



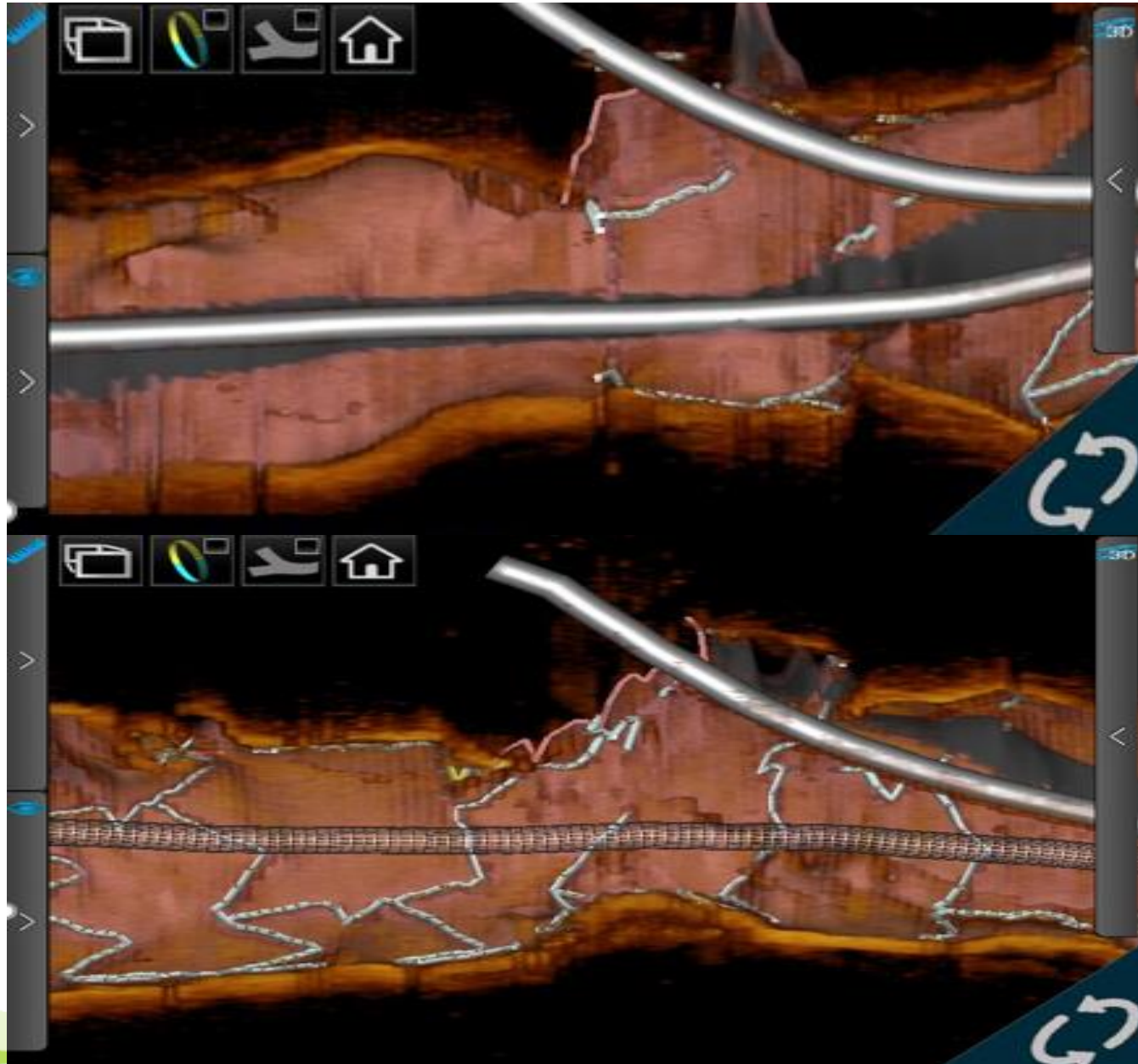
LAD OCT : Minimal neocarina



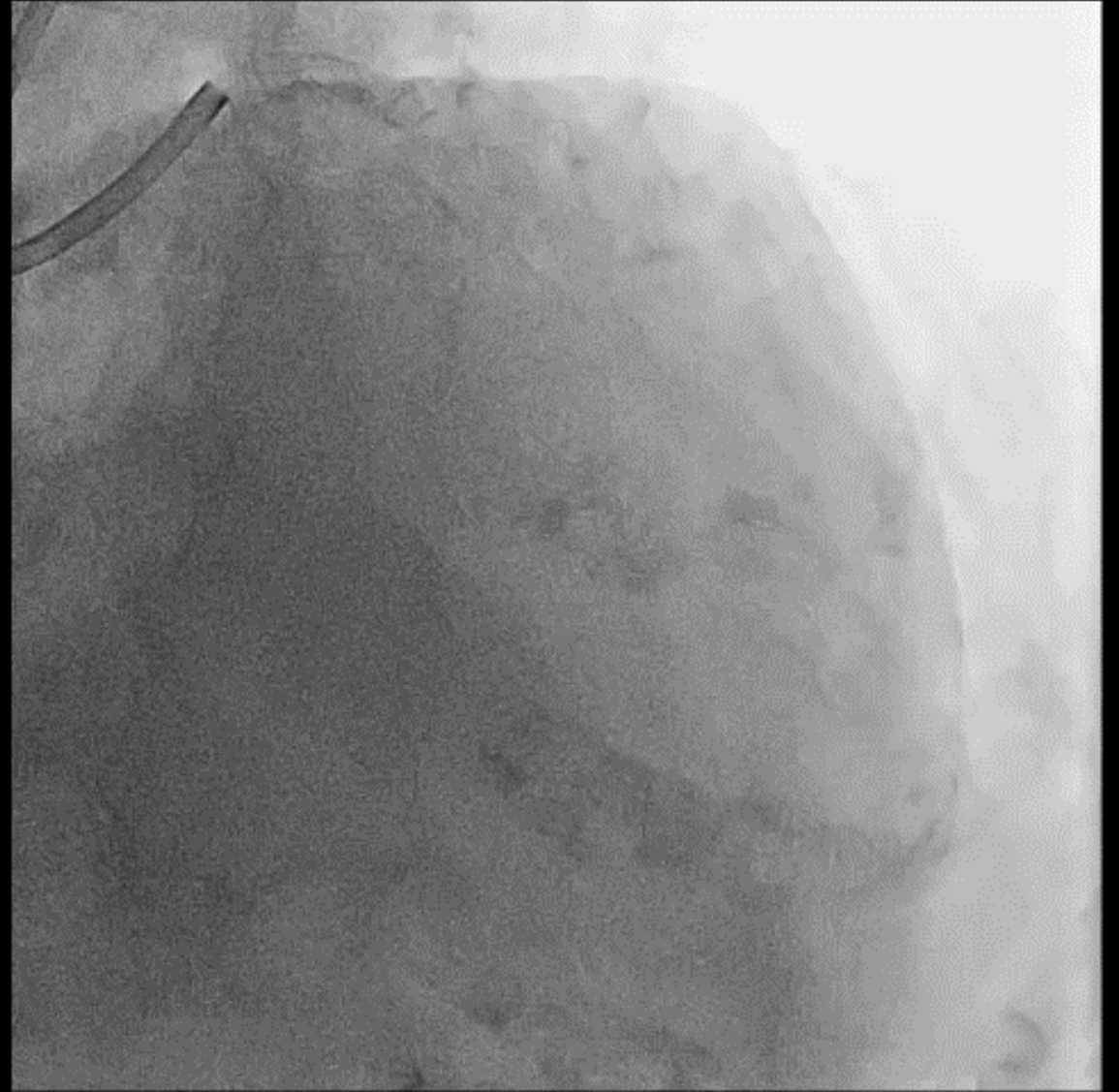
LCX OCT : Minimal neocarina and LCX os full-coverage



LCX OCT : LCX os Full-coverage

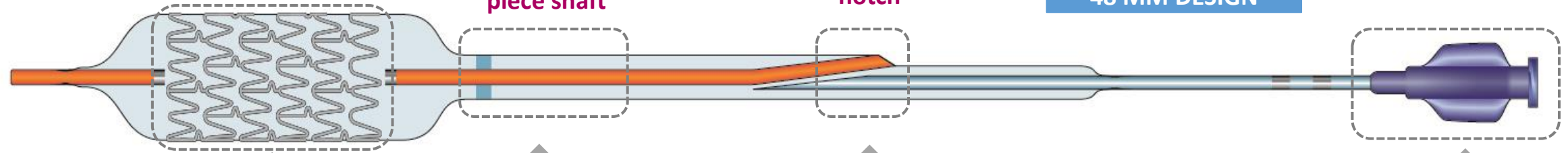


Final angiography



XIENCE Skypoint™ has a number of improvements

XIENCE Skypoint

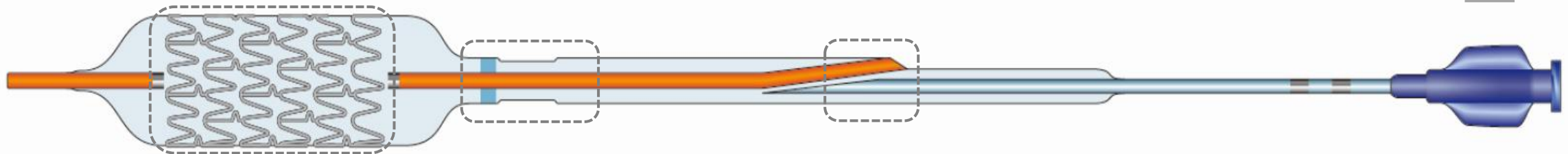


Larger Stent Expansion
3.5/4.0mm → 5.75mm

Integrated ONE PIECE shaft for lower crossing profile
Integrated mid-shaft to distal shaft catheter with 0.001"/
0.0025mm reduction in guide wire notch profile which helps
provide excellent deliverability

Improved catheter hub
with more visible stent size labelling

XIENCE Sierra



Data on file at Abbott.

What does the name 'XIENCE Skypoint' MEAN?

XIENCE Skypoint



*Combines the ideas of **expansiveness** (sky) and*

→ Better Expansion

*being able to **deliver to a specific spot** (point)*

→ Deliverability