
A Complex Patient with Large and Small Vessels

... treated with dedicated small and large vessel stents with “DK Crush”

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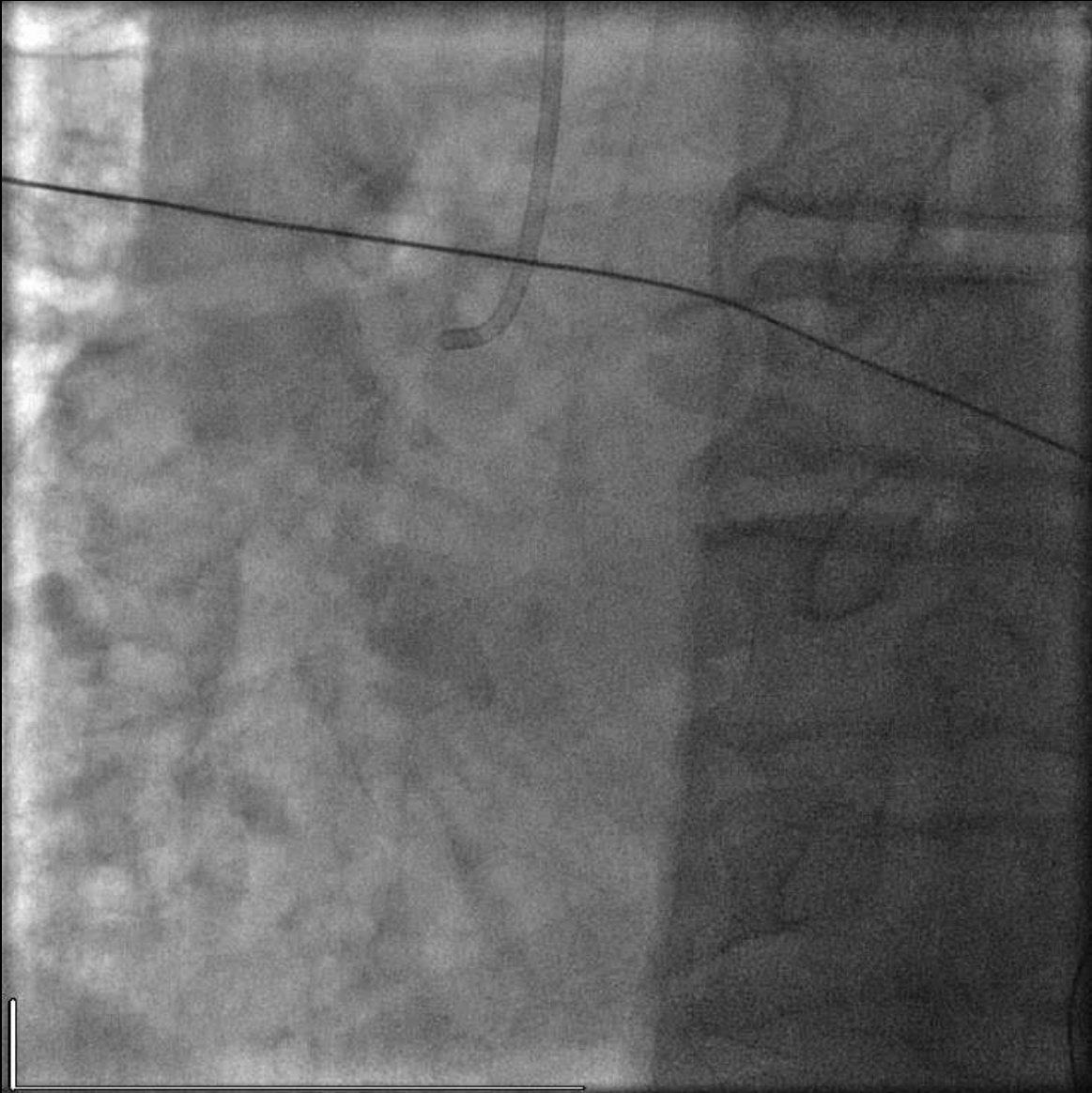
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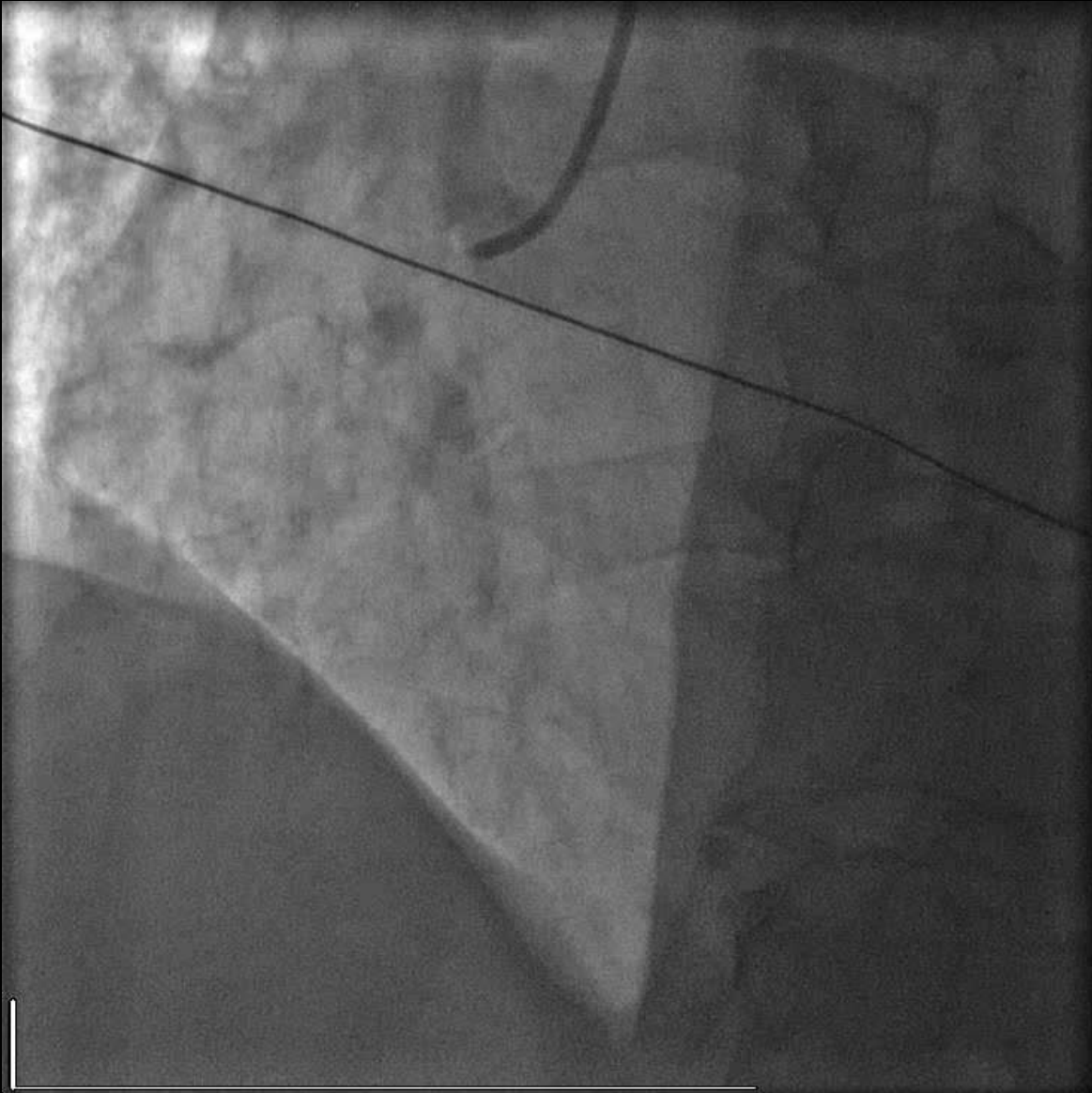
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Case

- 70 year-old man, presented with inferior STEMI
- History of gastric ulcer 4 months prior
- Endoscopy performed initially
- Follow-up endoscopy 3 months later → healing gastric ulcer.
- No recent history of melena or hematemesis.



- RCA at time of inferior STEMI



- RCA stented with Biofreedom drug coated stent (allows 1 month DAPT if needed)
- Reminder: patient recently had gastric ulcer



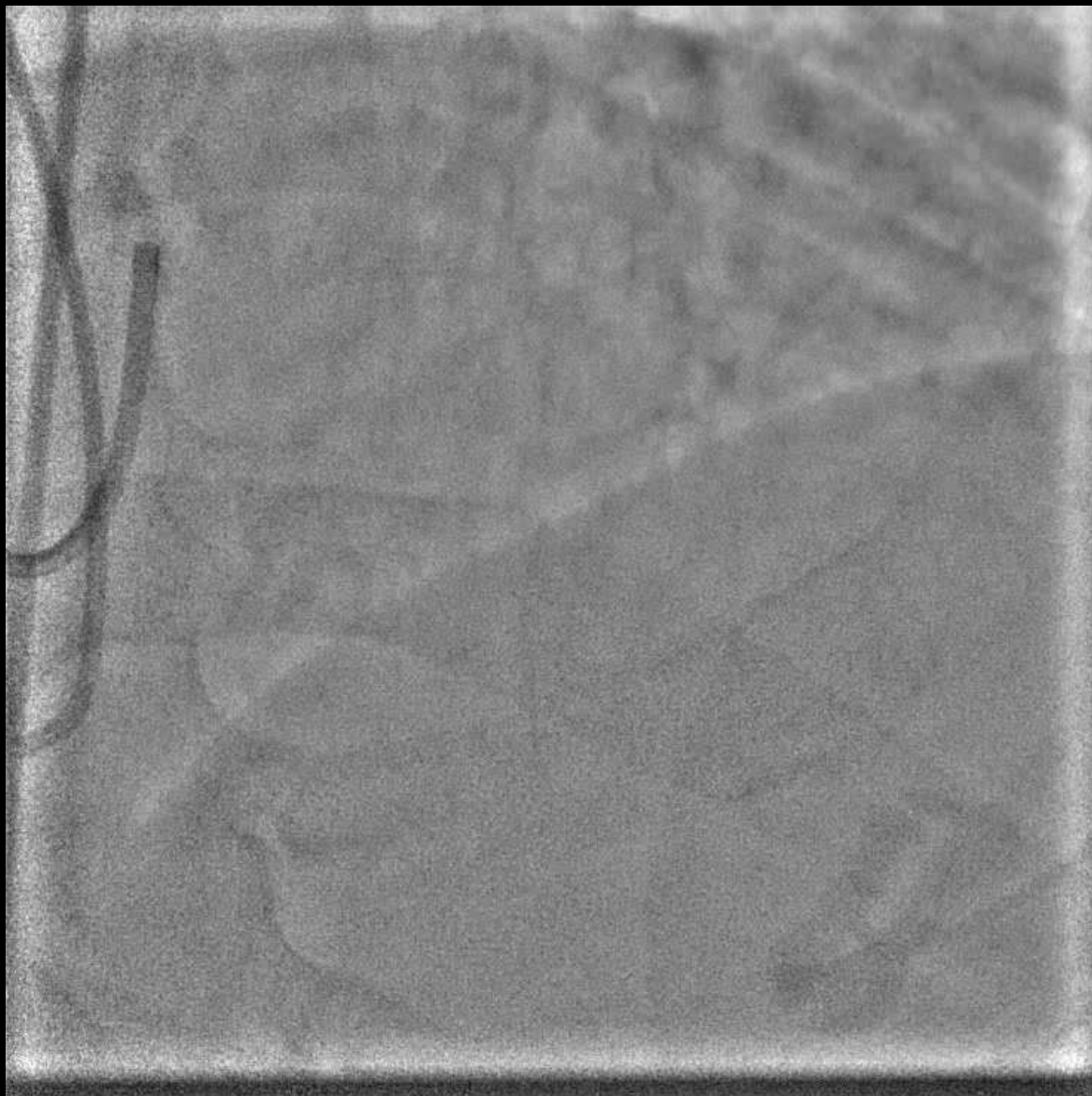
- LAD at that time

Decision Making

- Allow patient to demonstrate tolerance to DAPT before staged PCI to LAD
- Patient discharged, brought back after 8 weeks



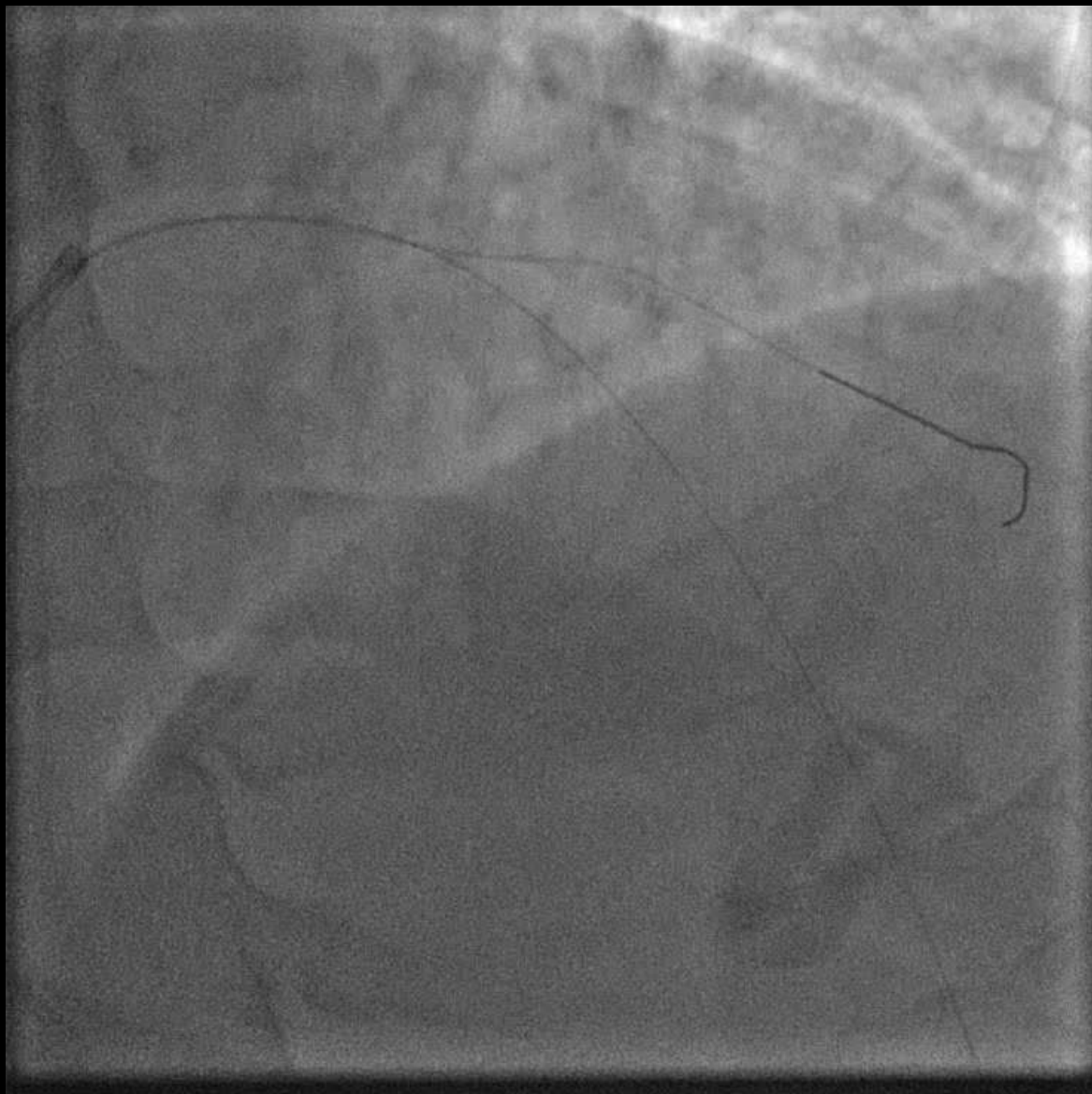
- LAD looks worse



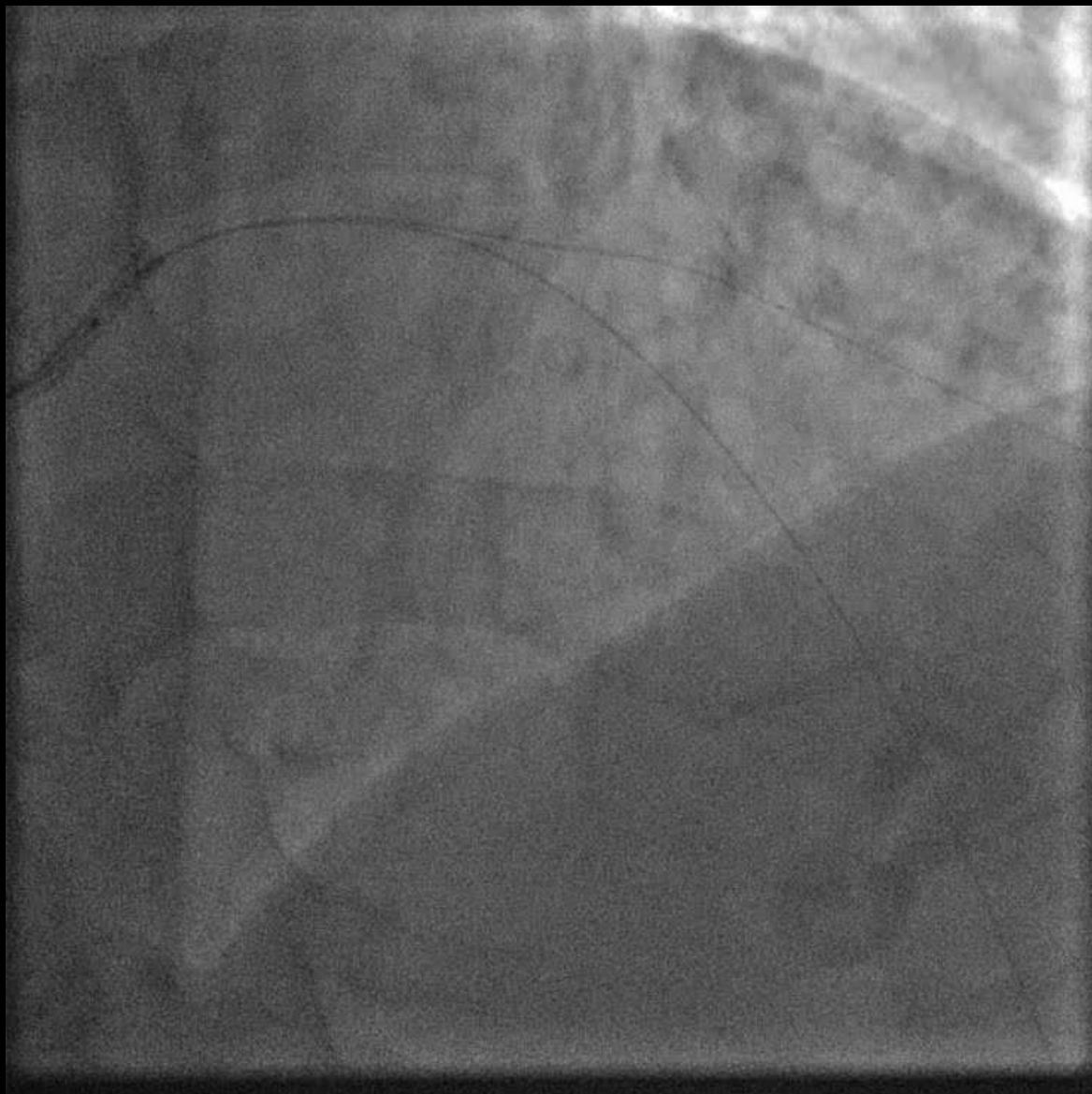
- 7F radial access
- 7F XB 3.0 guider
- Contralateral injection via 4F JR4 in right femoral artery



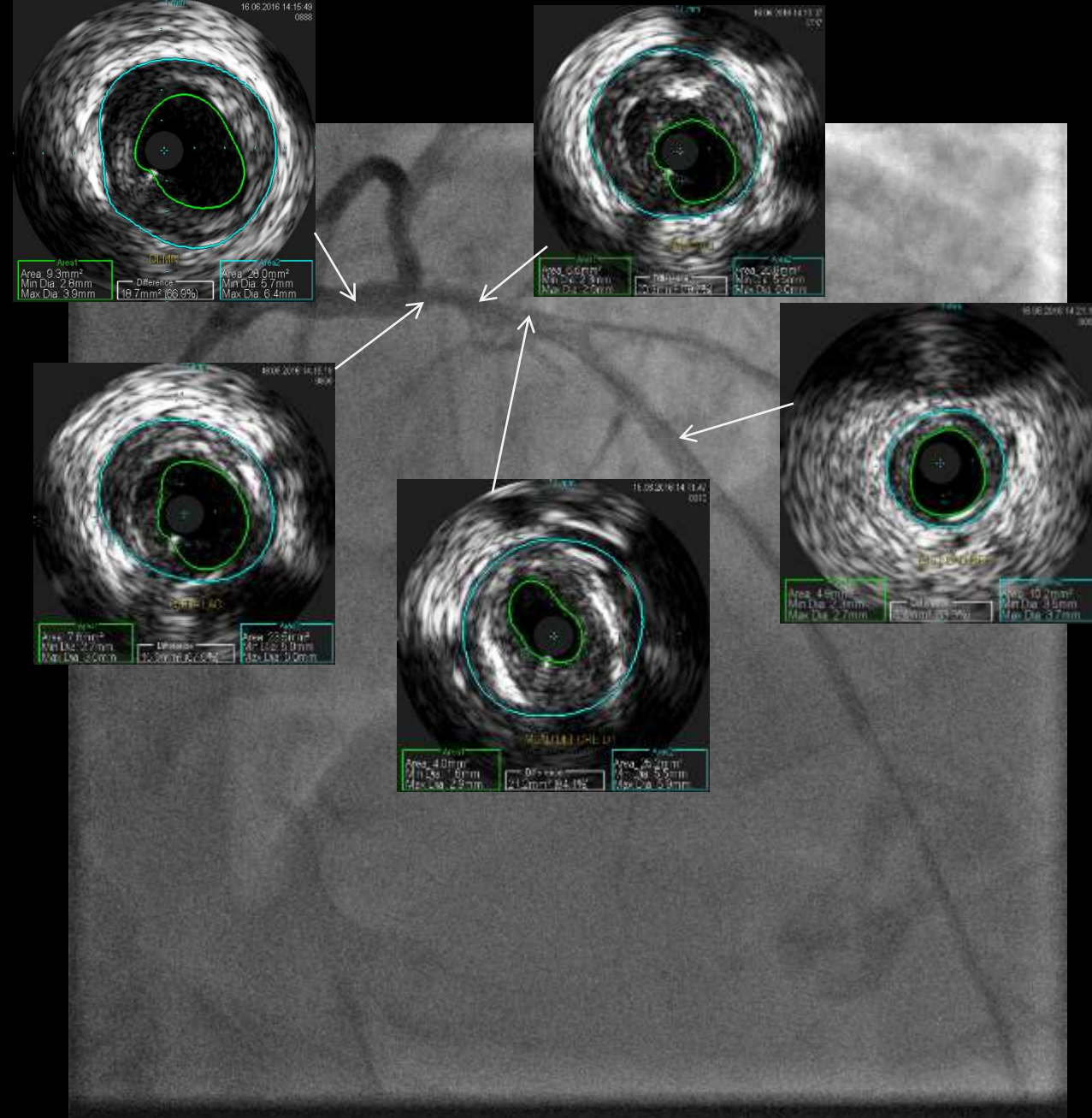
- LAD crossed with Fielder XT-A wire



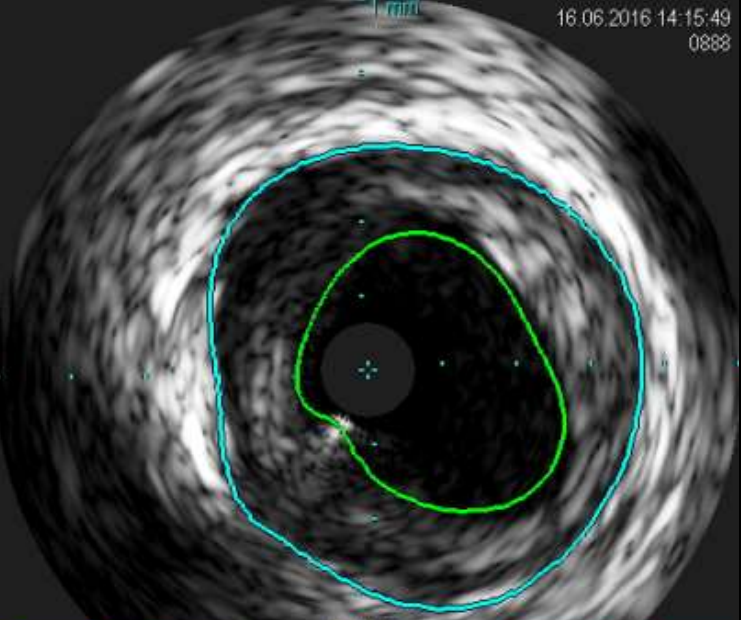
- LAD dilated with 1.0 then 2.0 mm balloons
- Fielder XT-A wire swapped for Sion Blue wire
- Second diagonal wired after noting long lesion



- After dilating LAD with 3.0 balloon and Second diagonal with 2.0 balloons



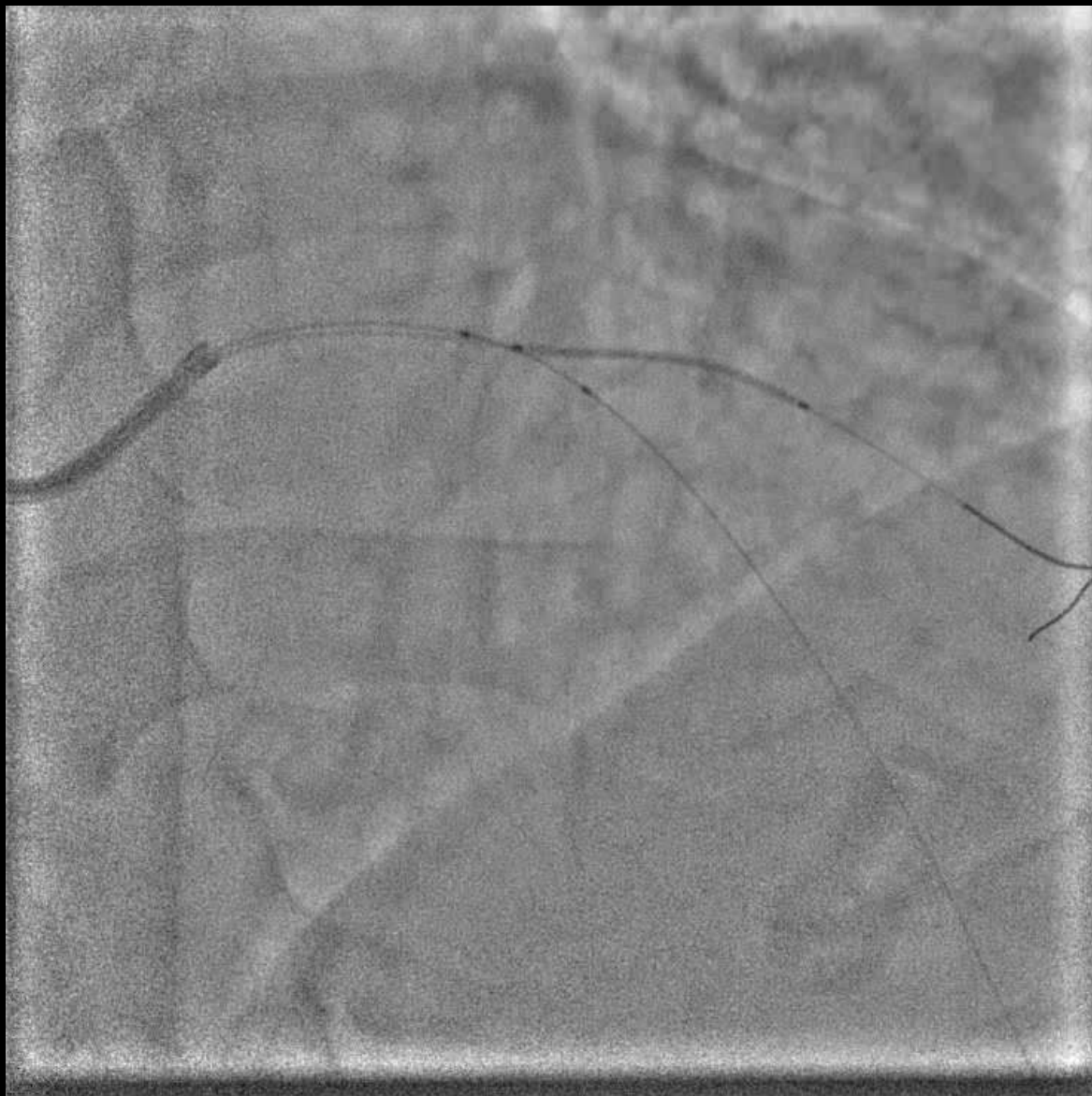
- IVUS
- Large plaque burden at ostial LAD and distal left main
- **Decision #1:** stent all the way to left main
- **Decision #2:** Second diagonal large, will need 2 stent strategy
- **Decision #3:** Left main very large (6 mm vessel) so need “special” large vessel stent



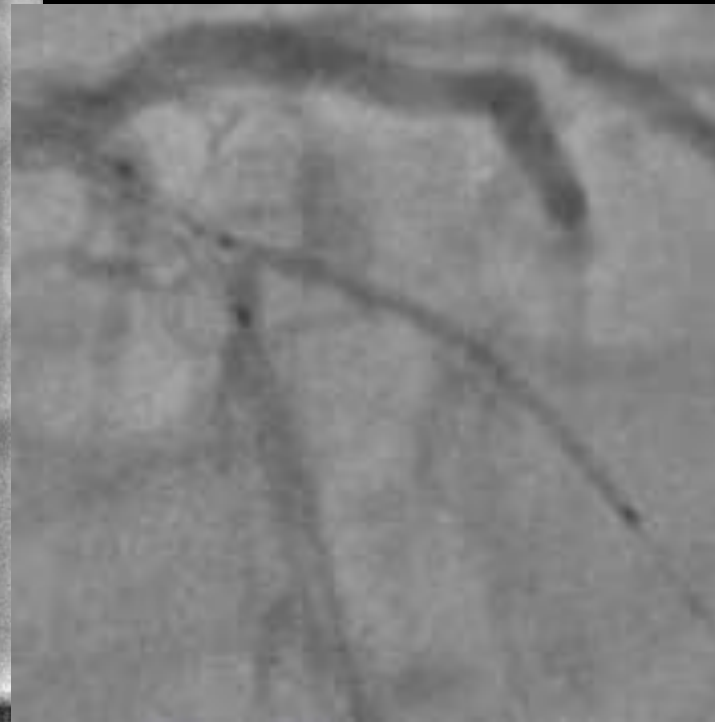
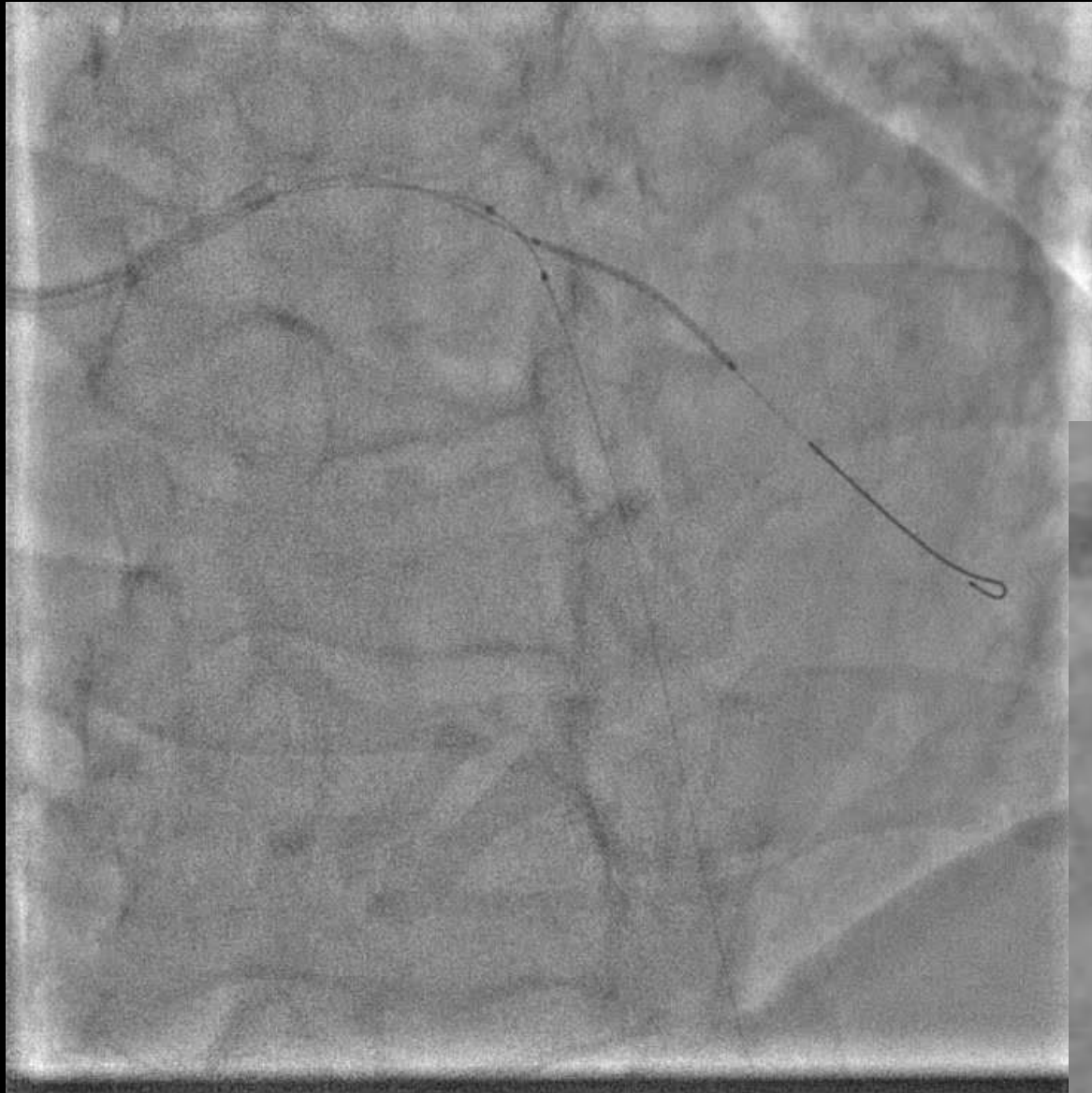
Area1
Area: 9.3mm²
Min Dia: 2.8mm
Max Dia: 3.9mm

DELTA
Difference
18.7mm² (66.9%)

Area2
Area: 28.0mm²
Min Dia: 5.7mm
Max Dia: 6.4mm

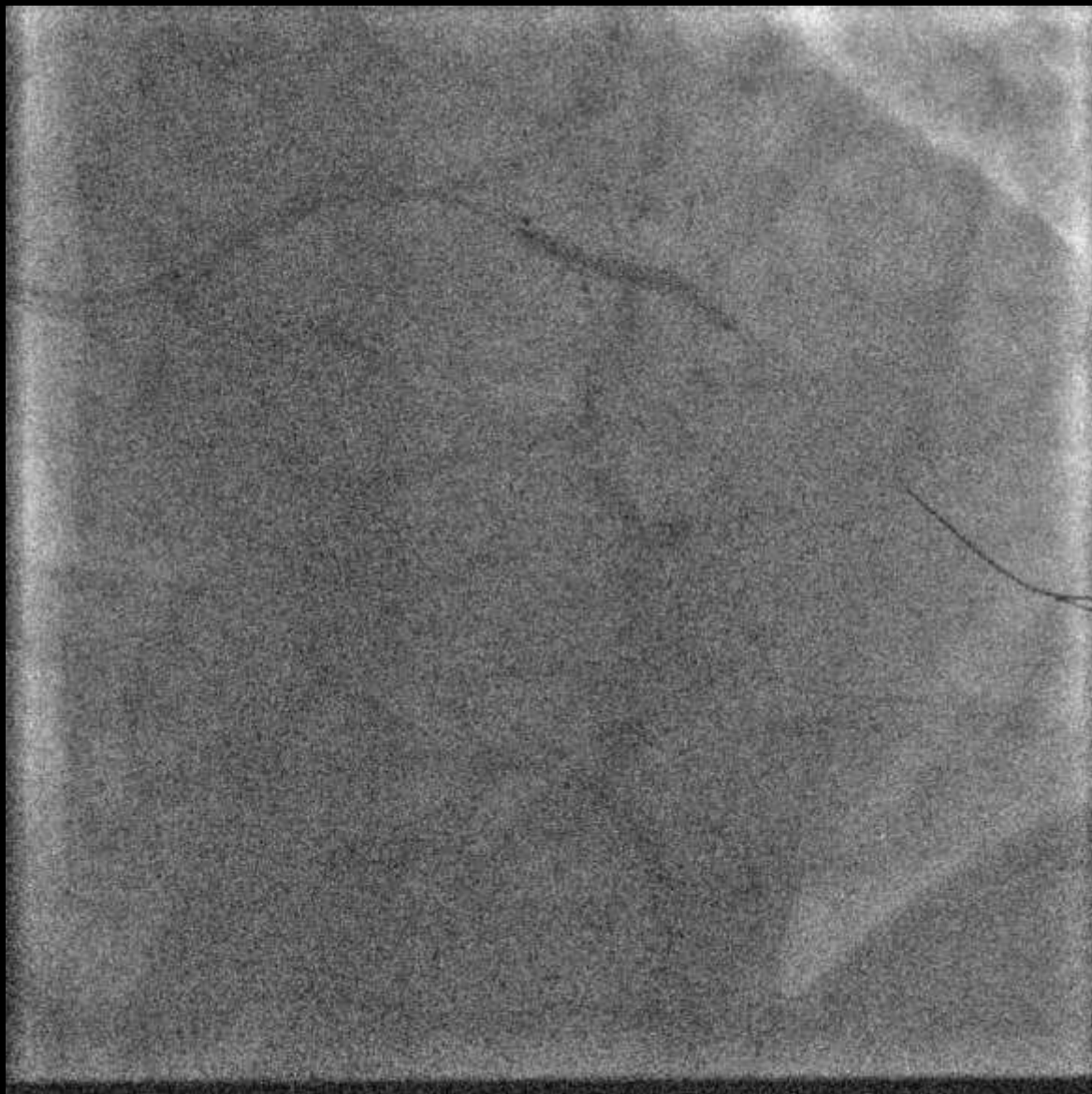


- Resolute Onyx 2.25 x 28 mm in diagonal
- Hiryu 3.0 x 15 mm non-compliant balloon in LAD

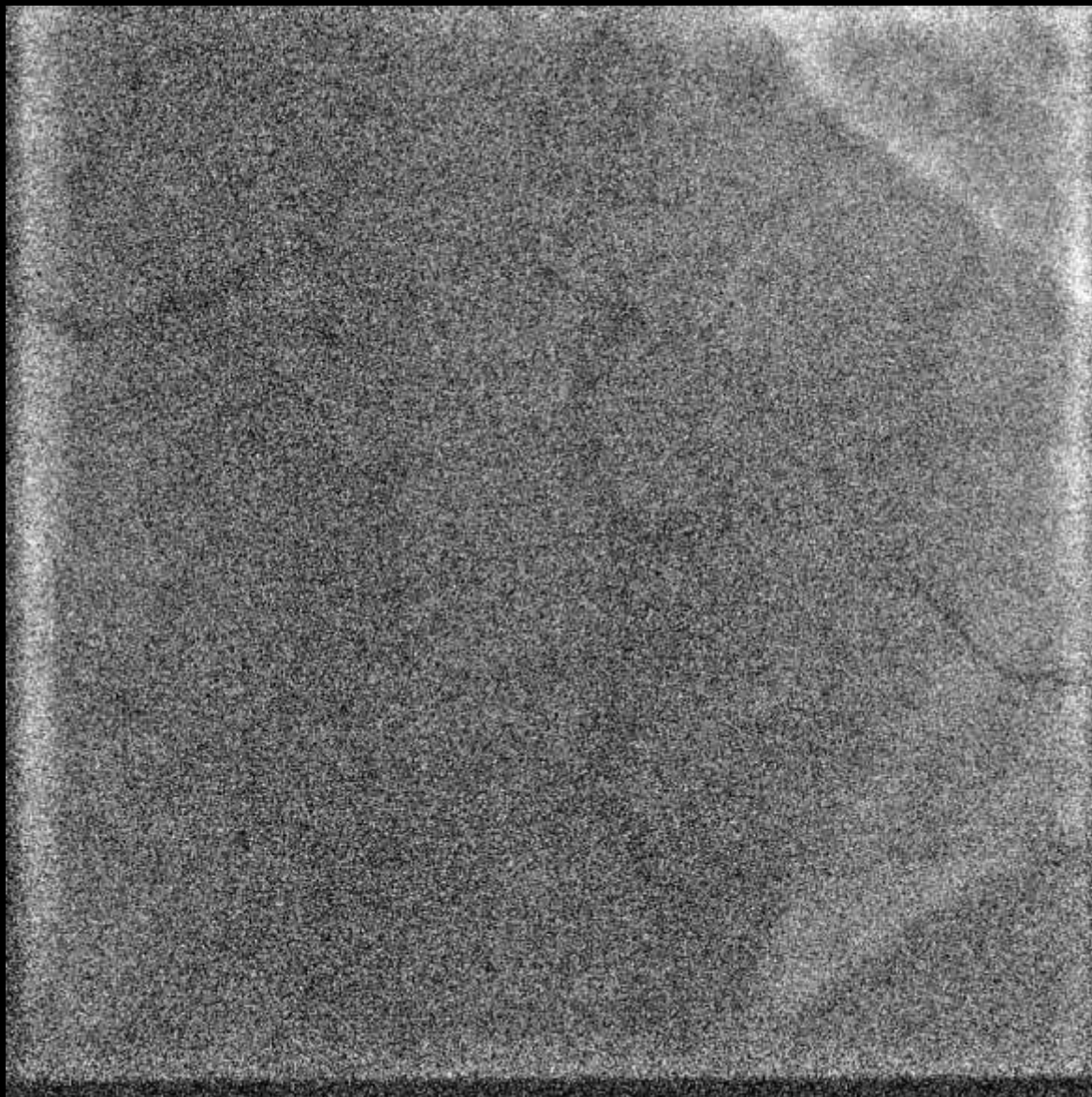




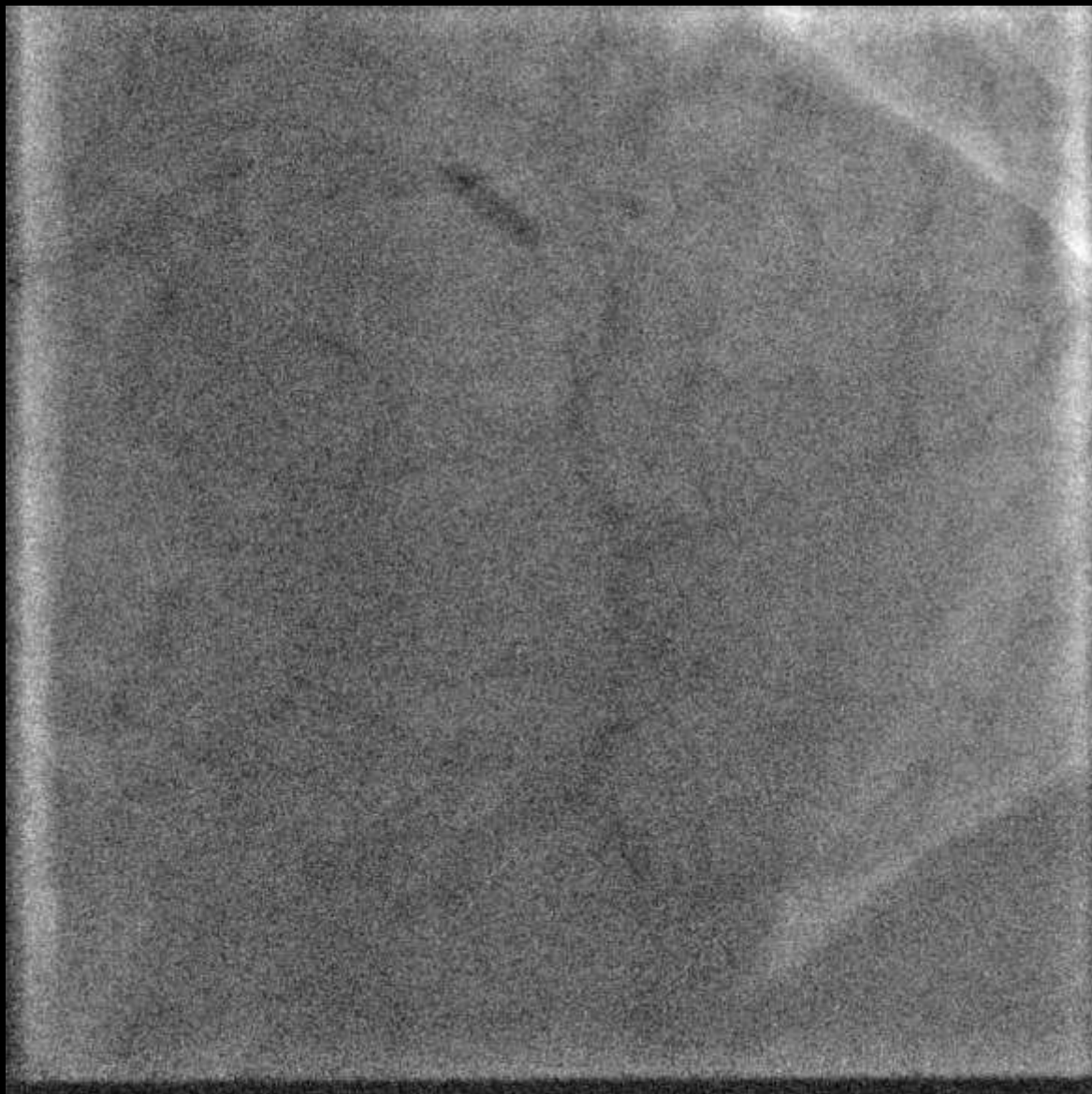
- Stent inflated in diagonal



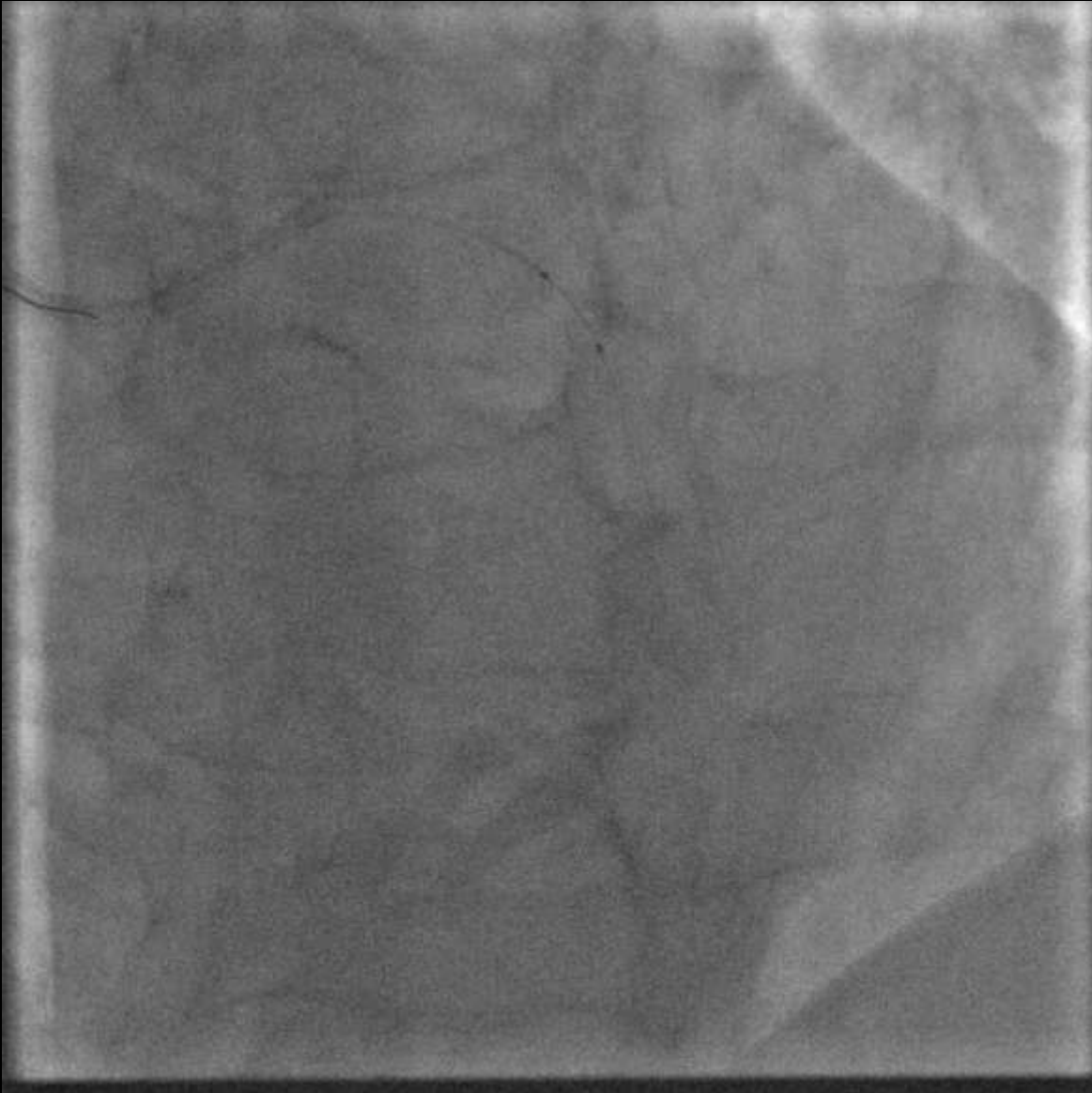
- The stent balloon was pulled back and dilated to 16 atm.



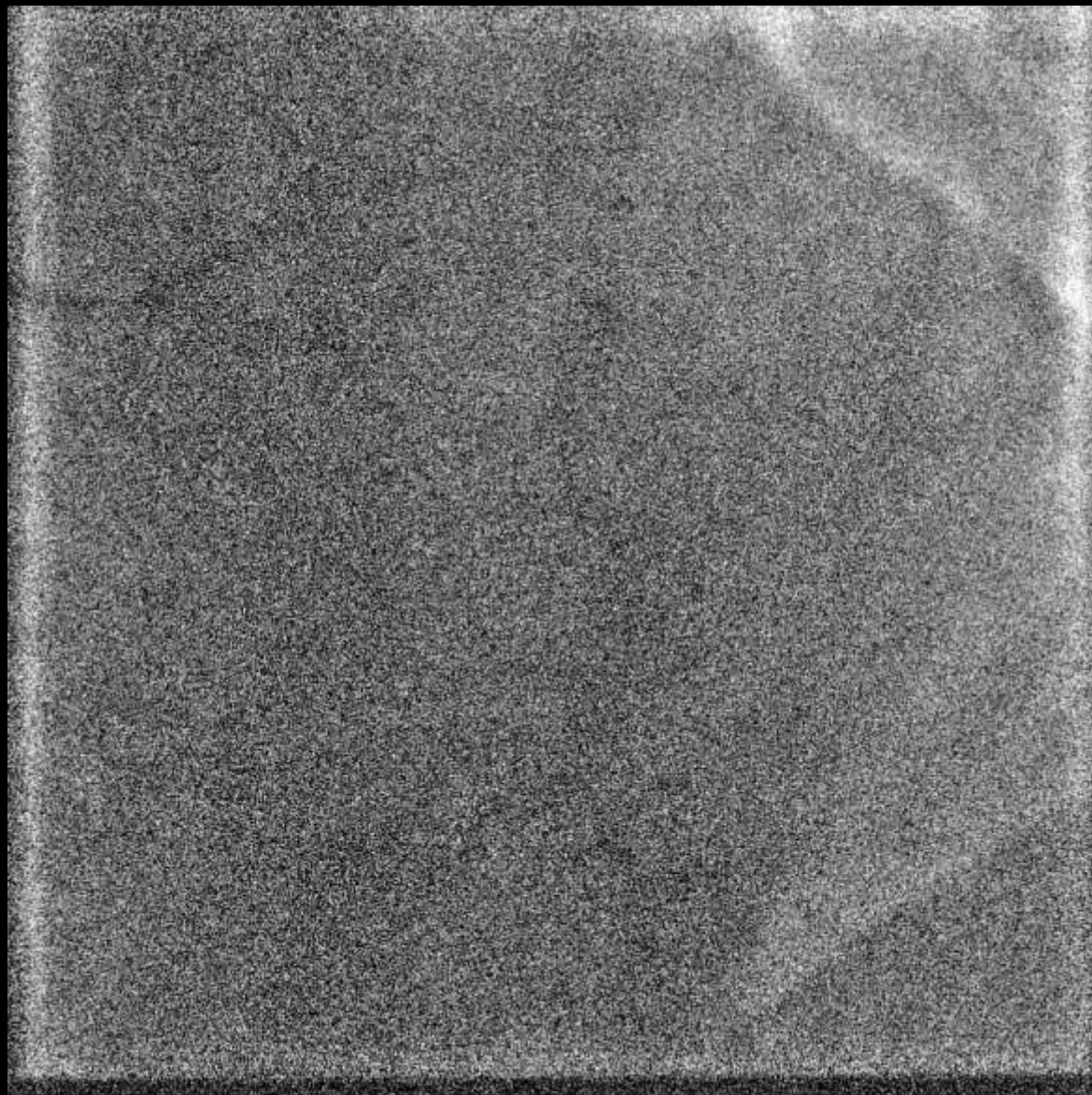
- Diagonal wire pulled out after no distal dissection confirmed

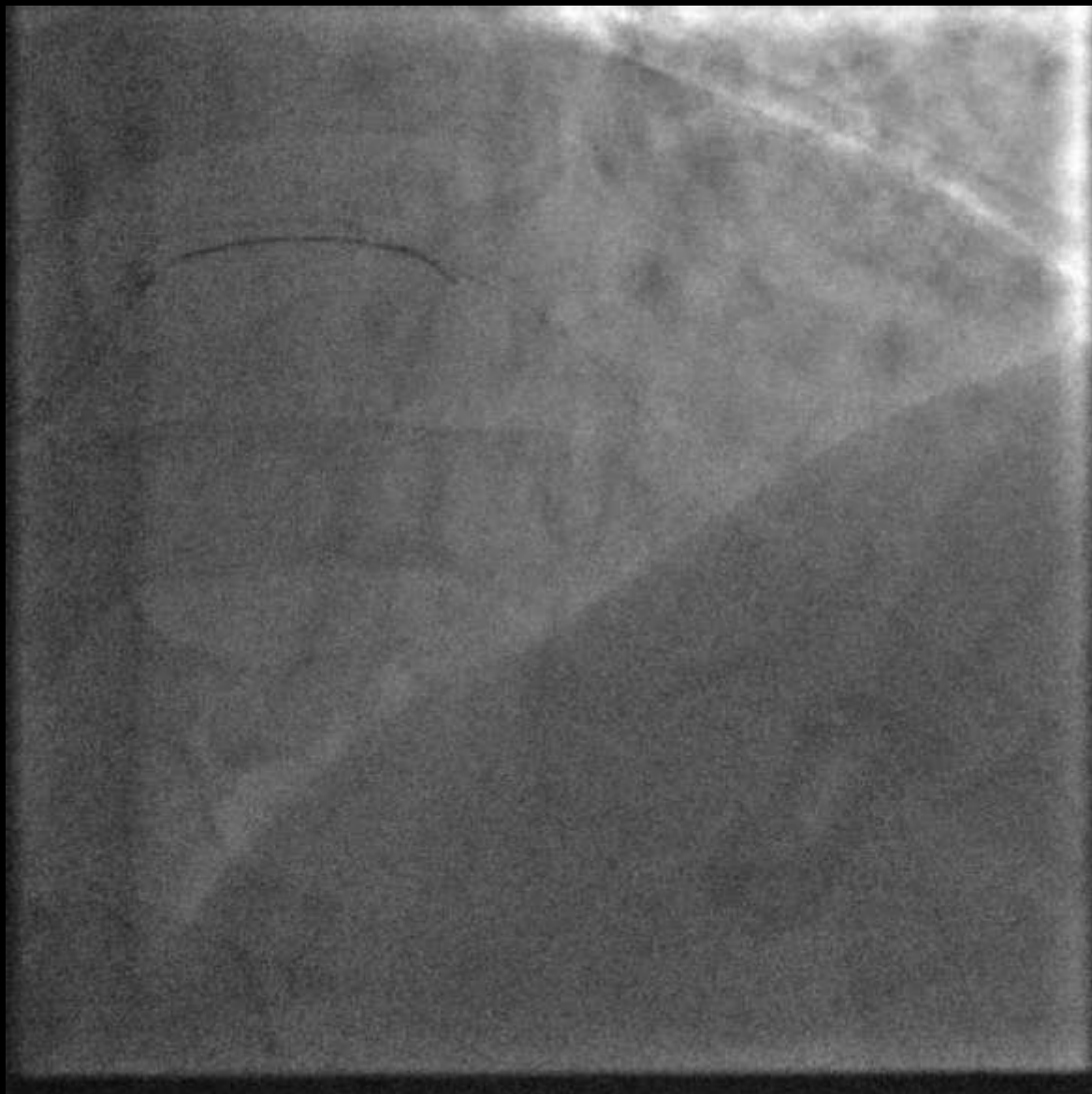


- Diagonal stent crushed

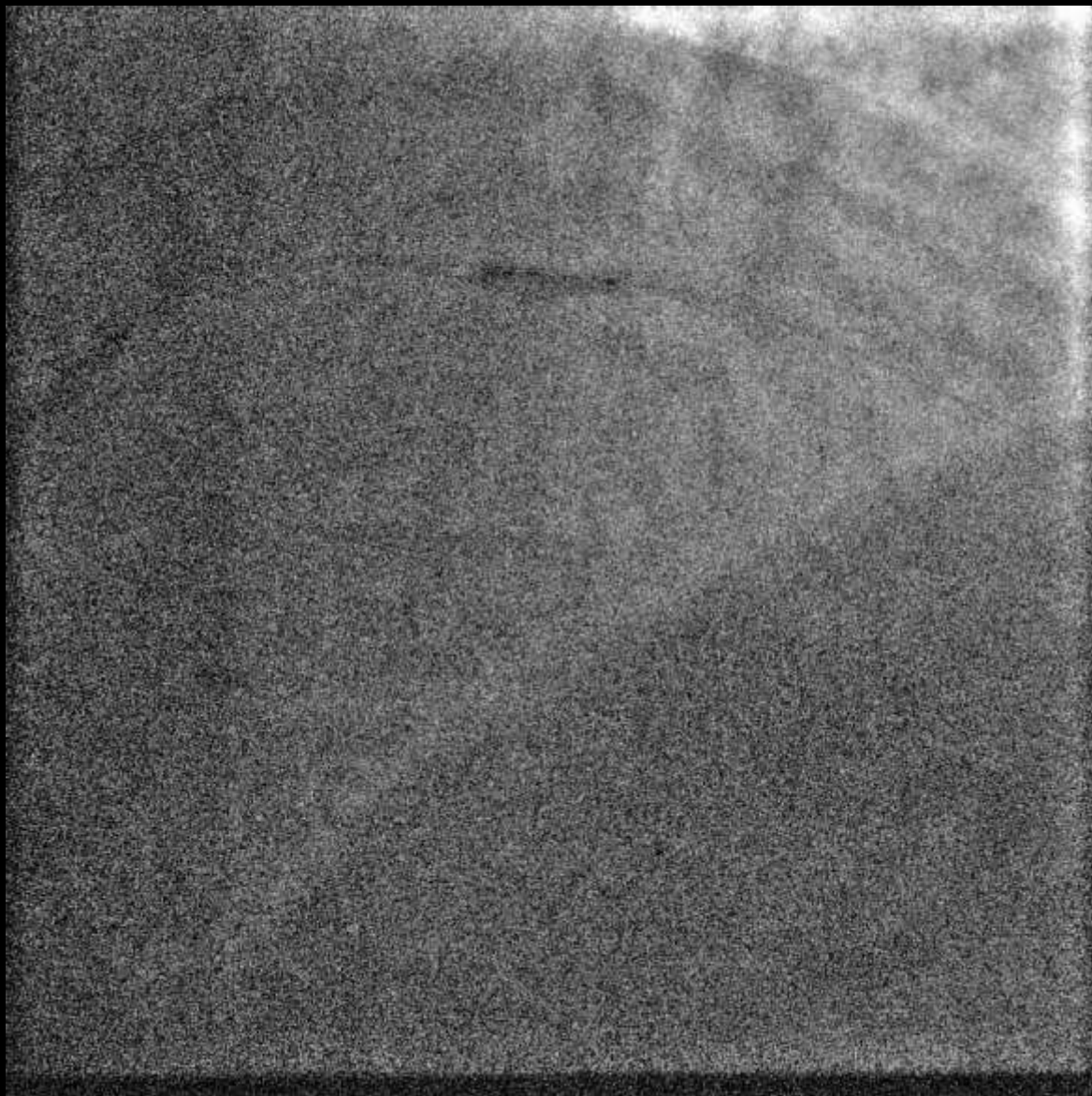


- Balloon confirms good passage

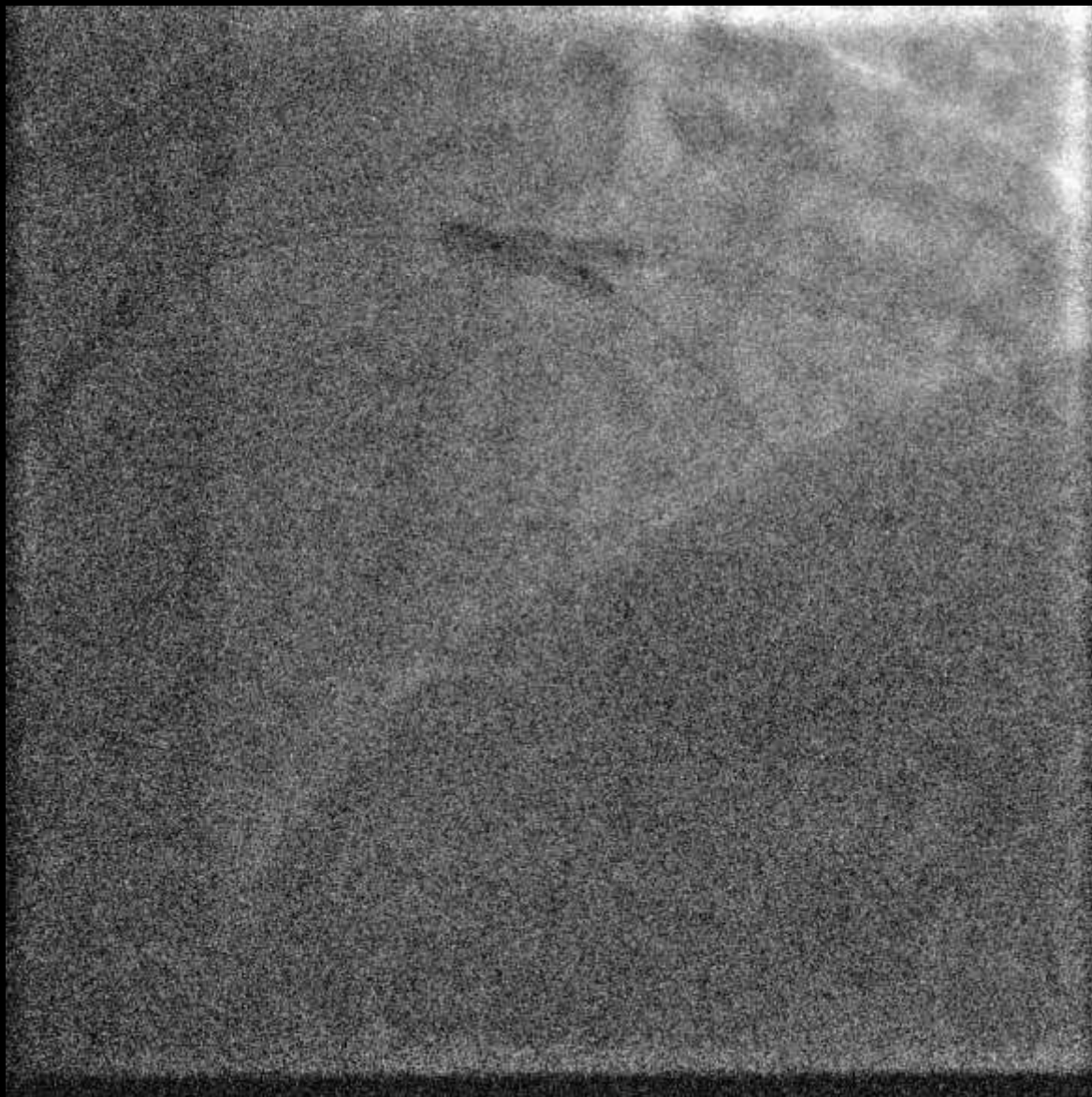




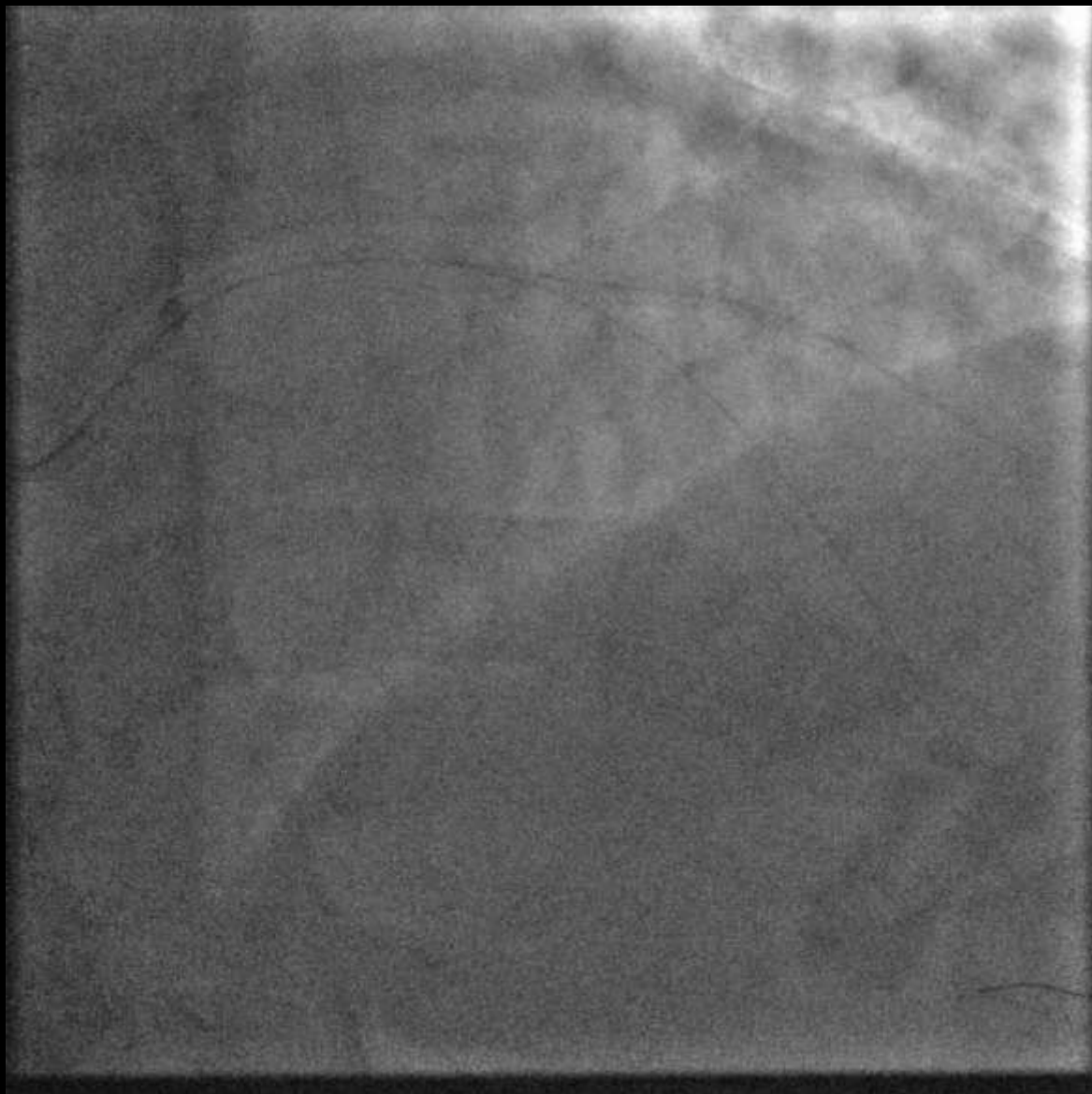
- Diagonal rewired



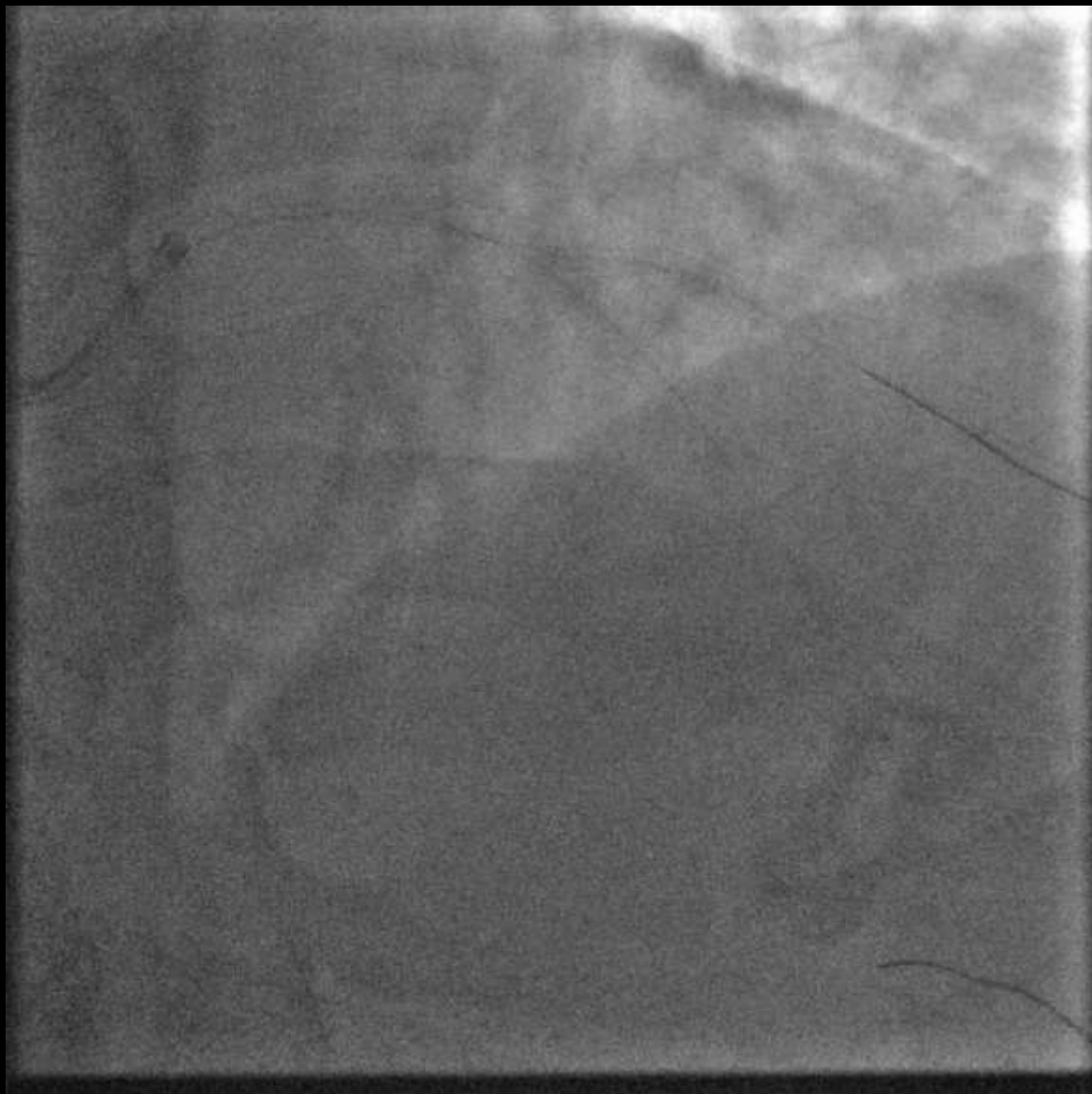
- Diagonal dilated with 1.5 x 15 mm compliant balloon then 2.5 x 12 mm non-compliant balloon



- First “kiss” –
- 2.5 x 12 mm non-compliant balloon in diagonal,
- 3.0 x 15 mm non-compliant balloon in LAD



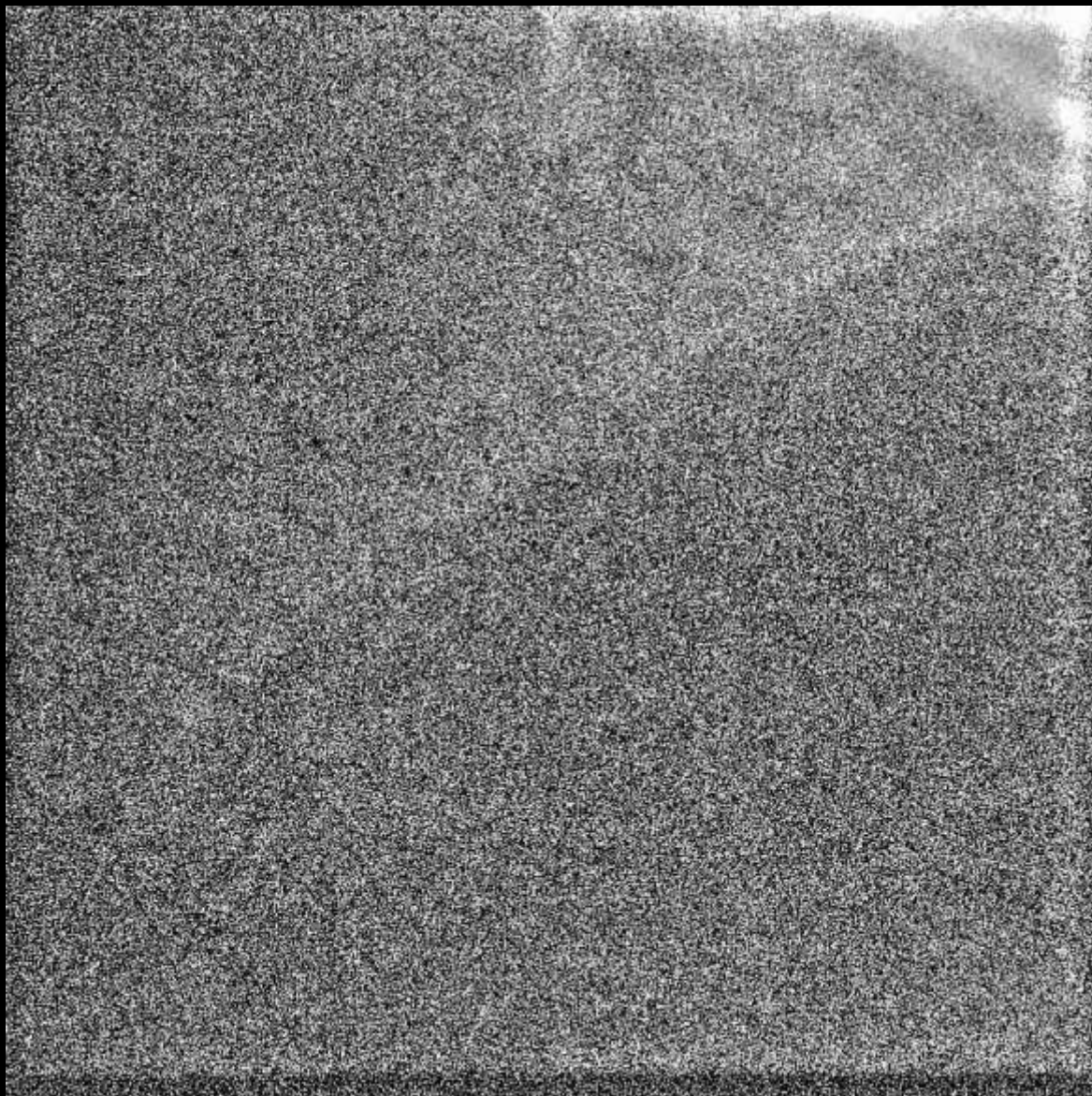
- After first kiss



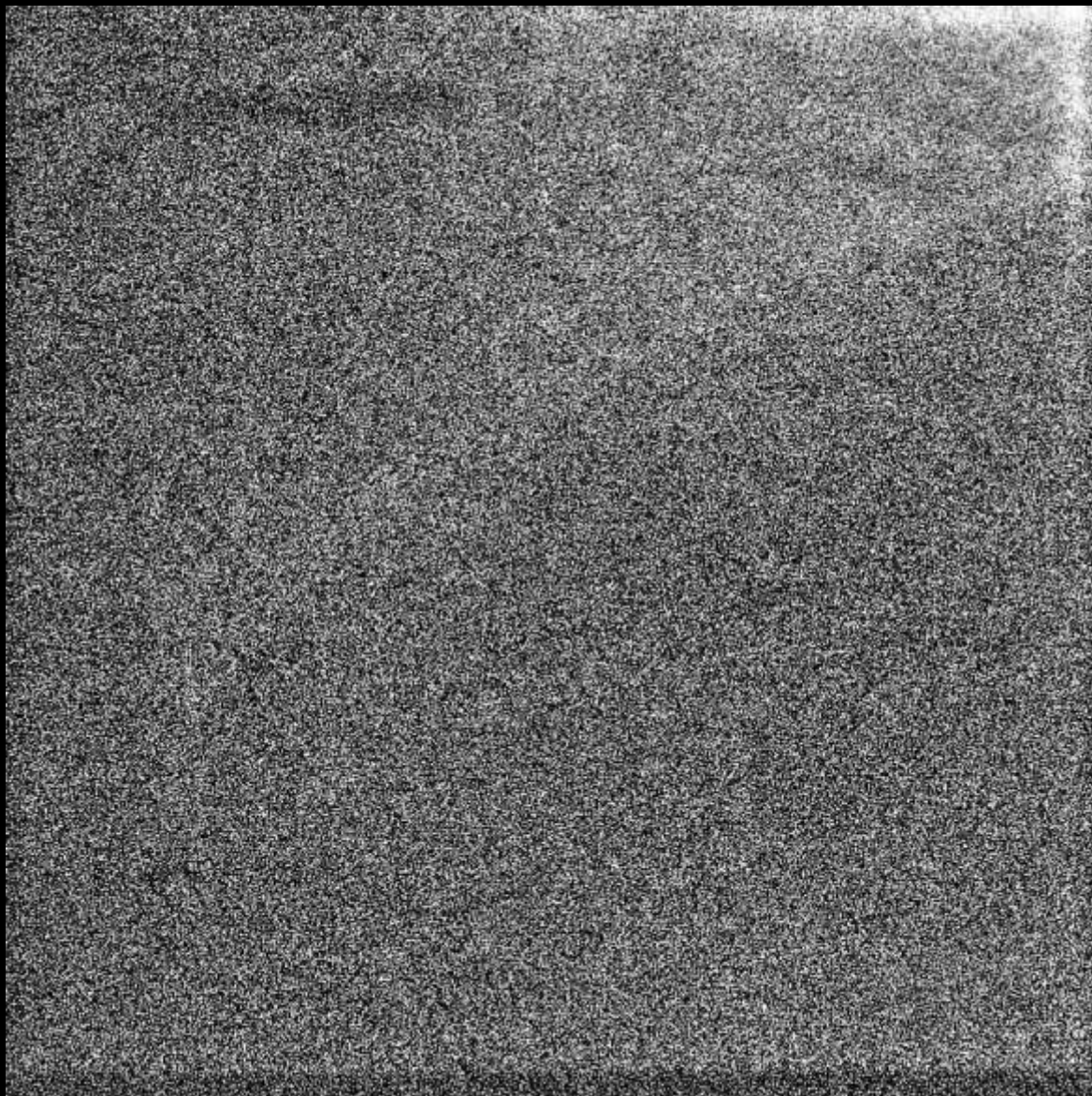
- Diagonal wire out



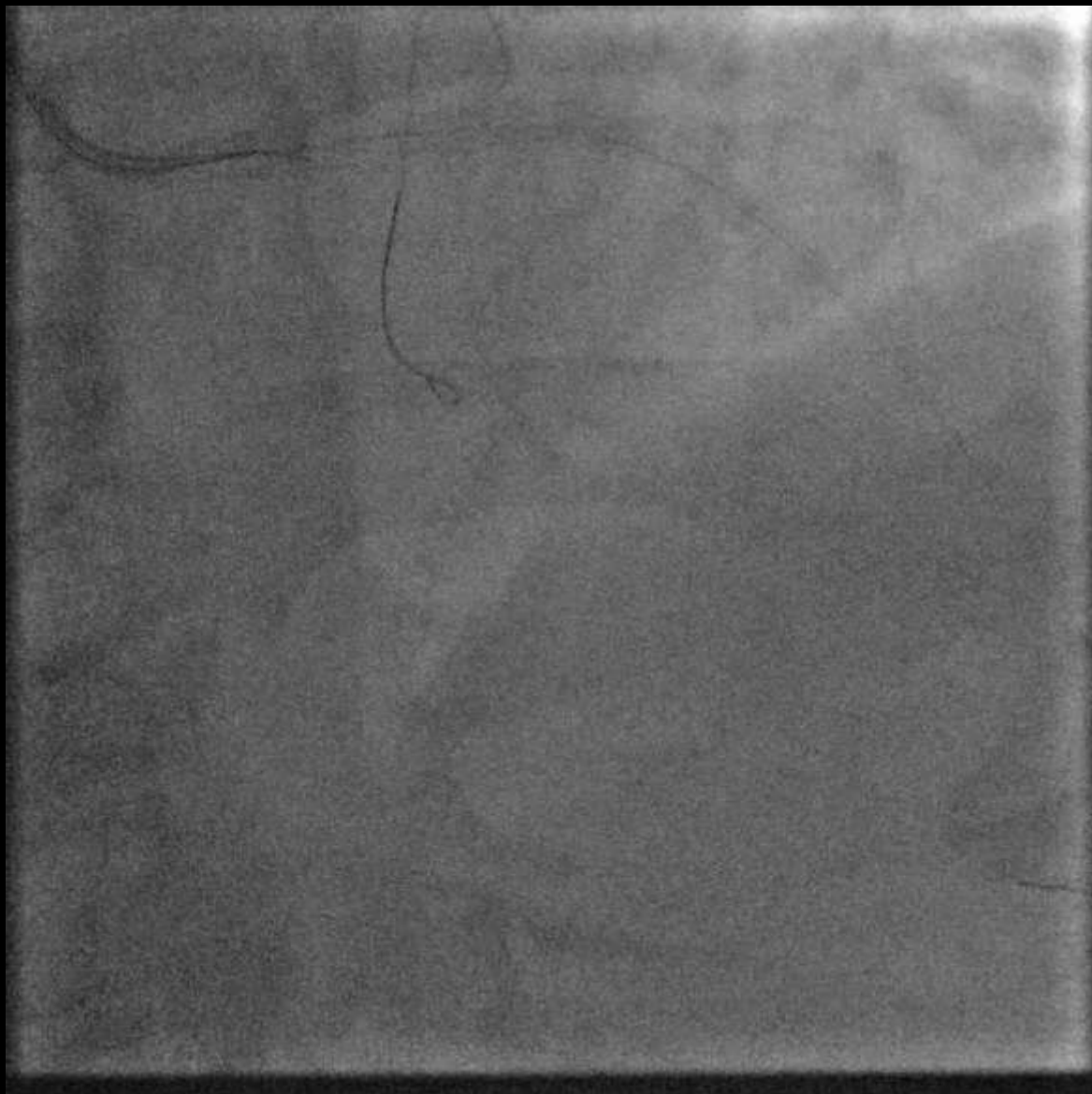
- Resolute Onyx 3.0 x 22 mm drug-eluting stent placed in LAD



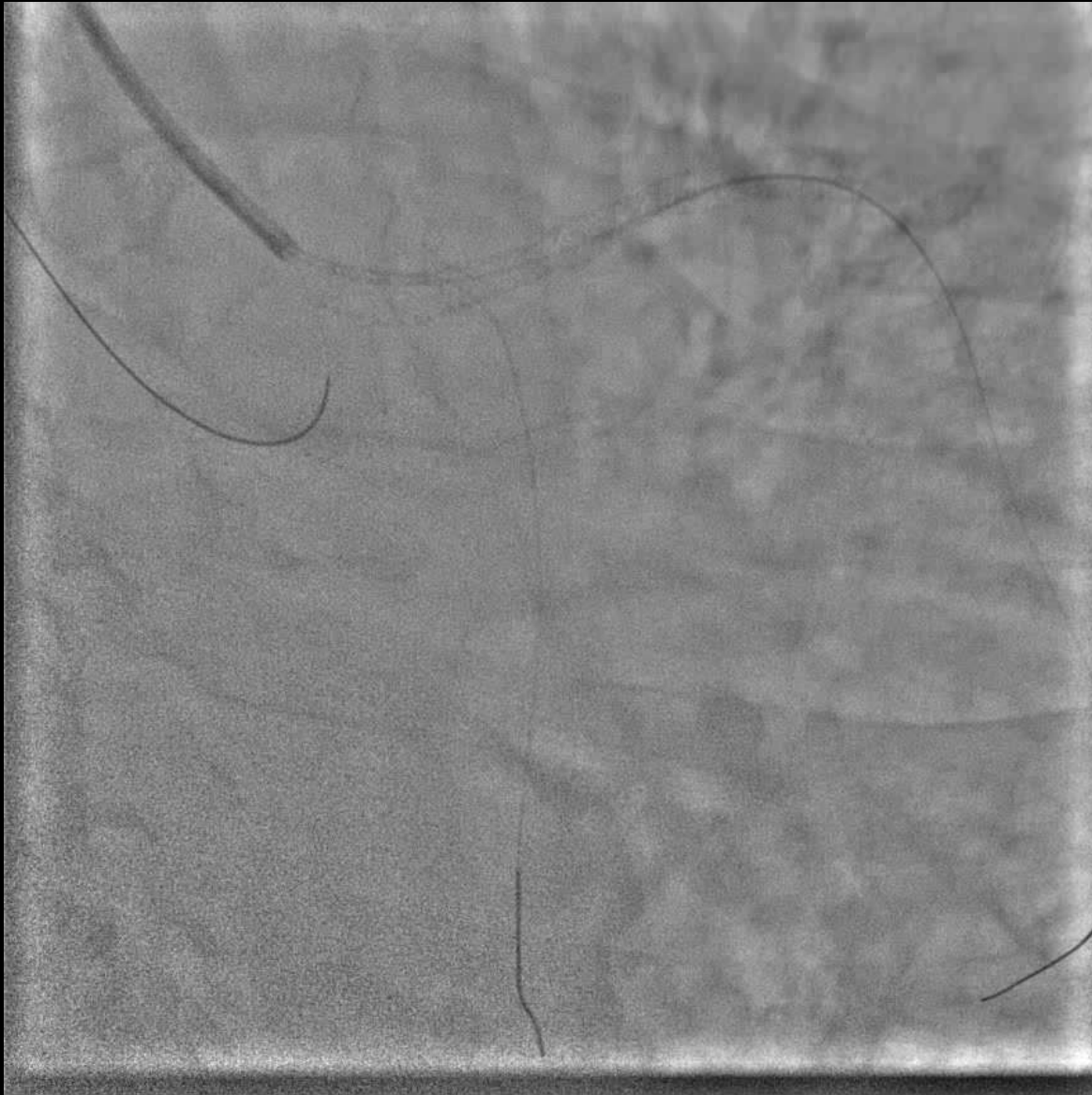
- Wire placed in LCx and Resolute Onyx 4.5 x 22 mm drug-eluting stent placed in left main and proximal LAD



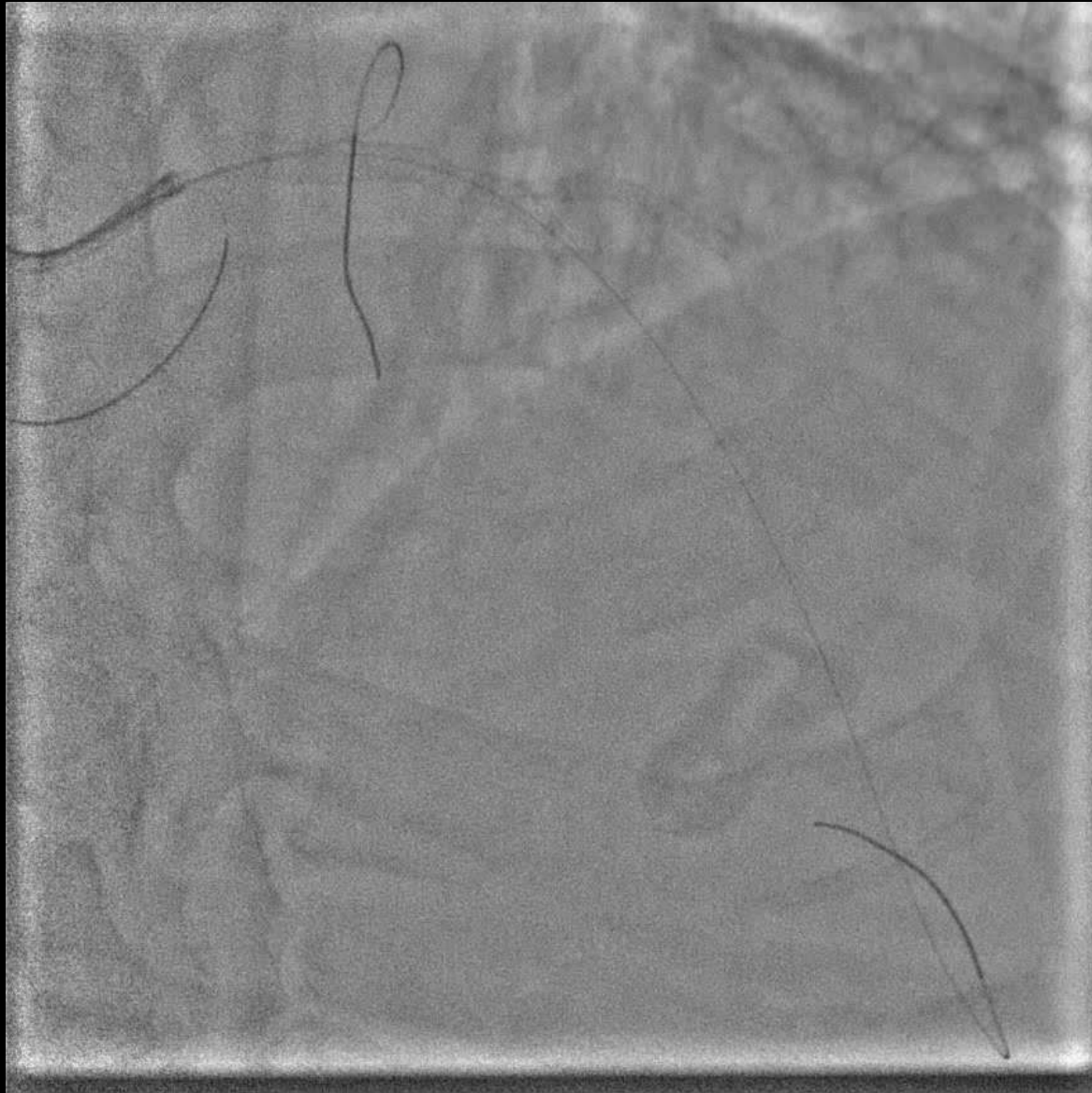
- Stent deployed

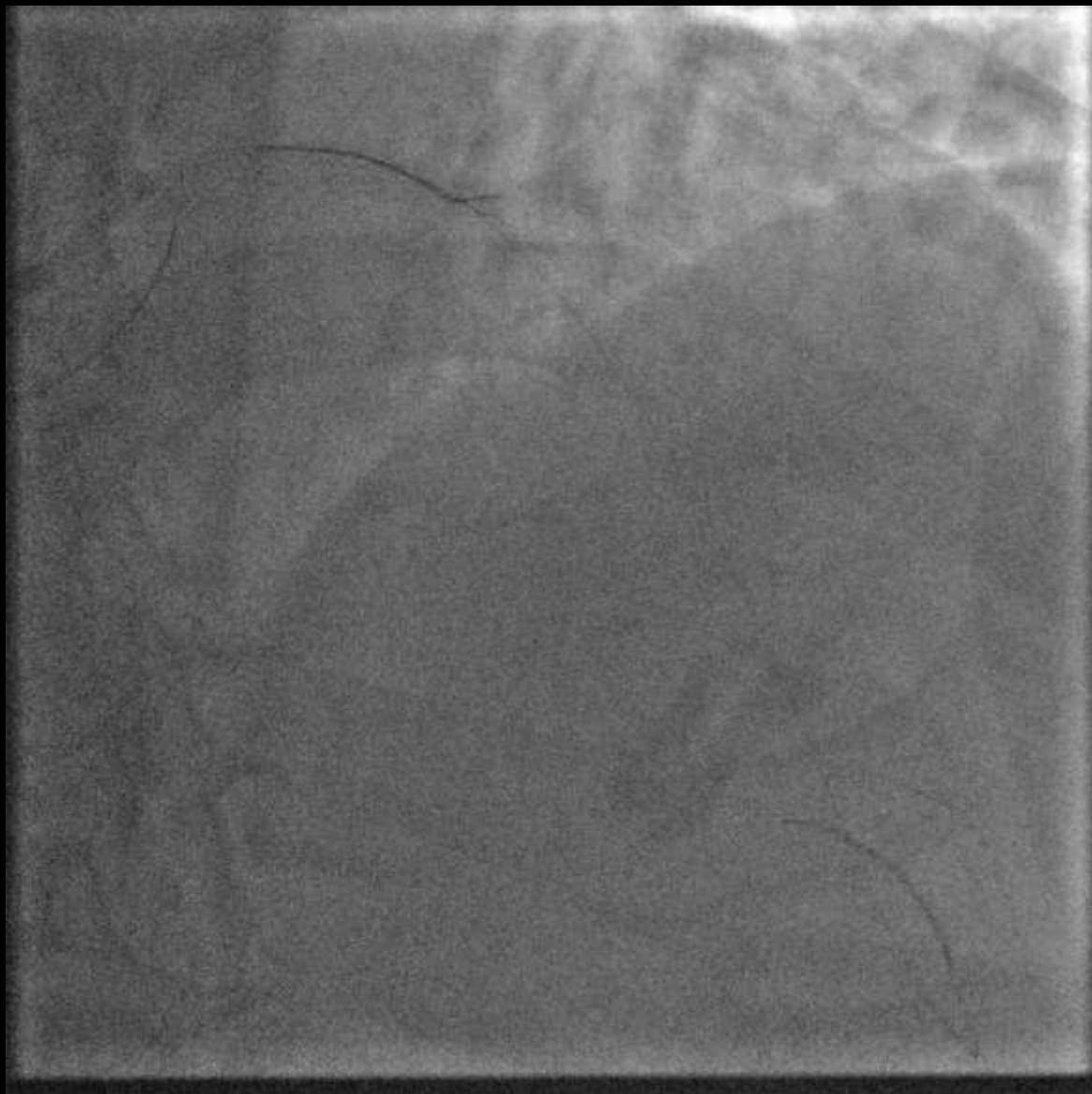


- Introducing “anchor” wire in aorta
- Prevents guider from being ‘sucked’ in with subsequent balloon withdrawals,



- After post-dilatation with non-compliant balloons
- Distal → 3.0 mm
- Proximal → 4.0 mm
- Left main → 5.0 mm





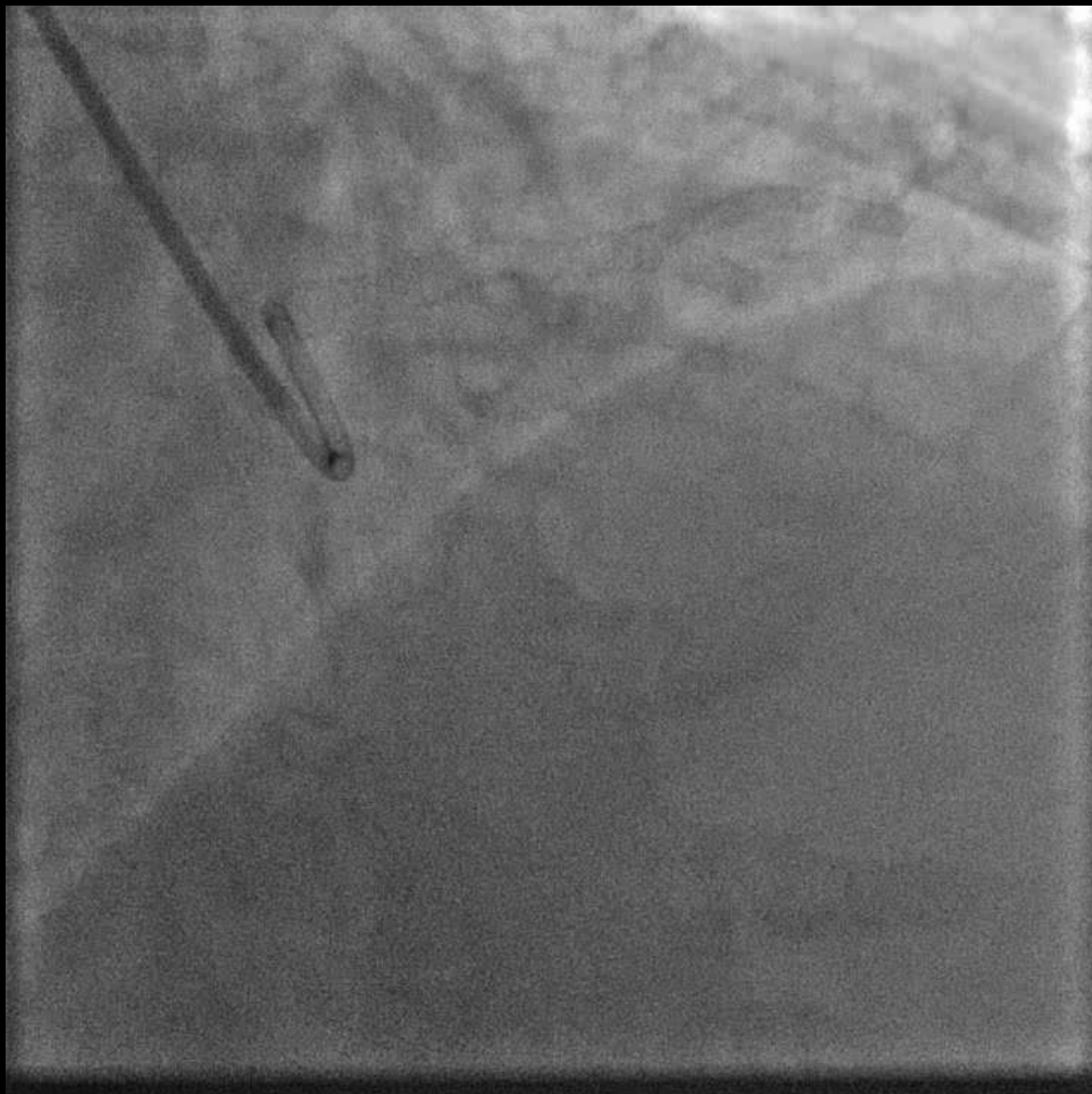
- Diagonal rewired for final kiss



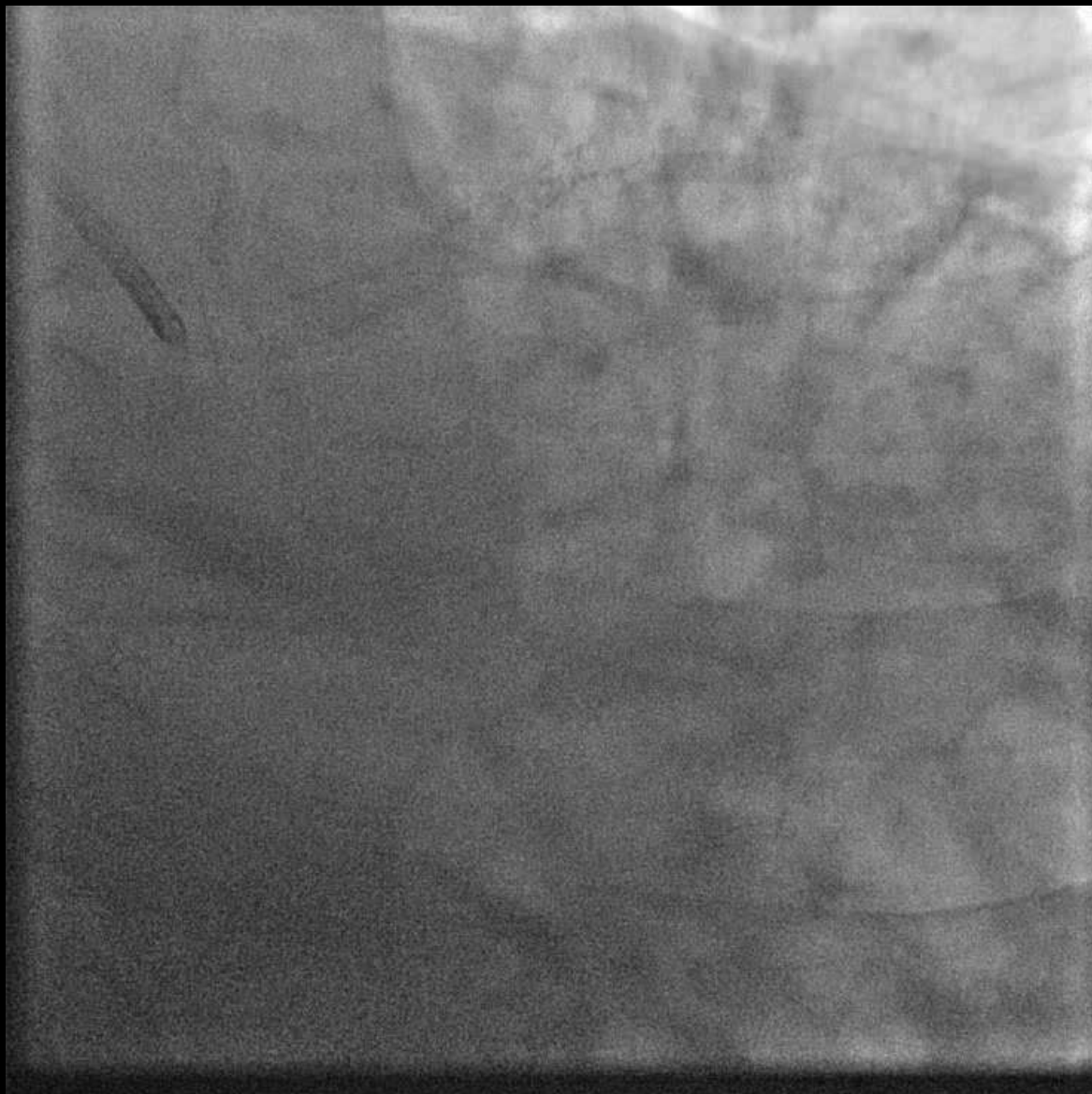
- Final kissing balloon inflation
- 2.5 x 12 mm non-compliant balloon in diagonal
- 3.0 x 15 mm non-compliant balloon in LAD



- Final



- Final

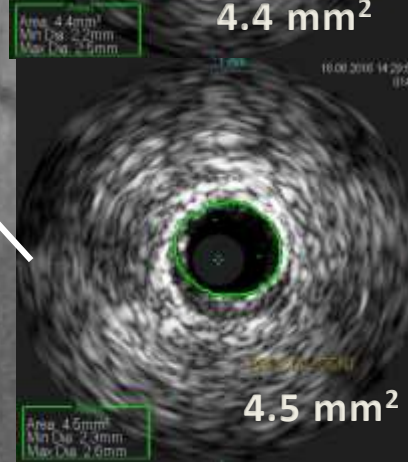
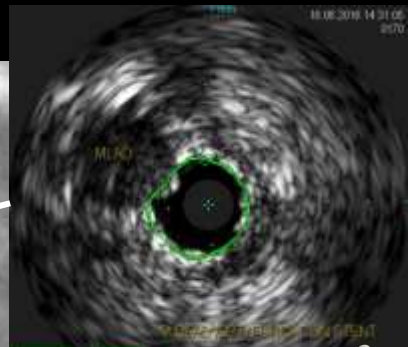
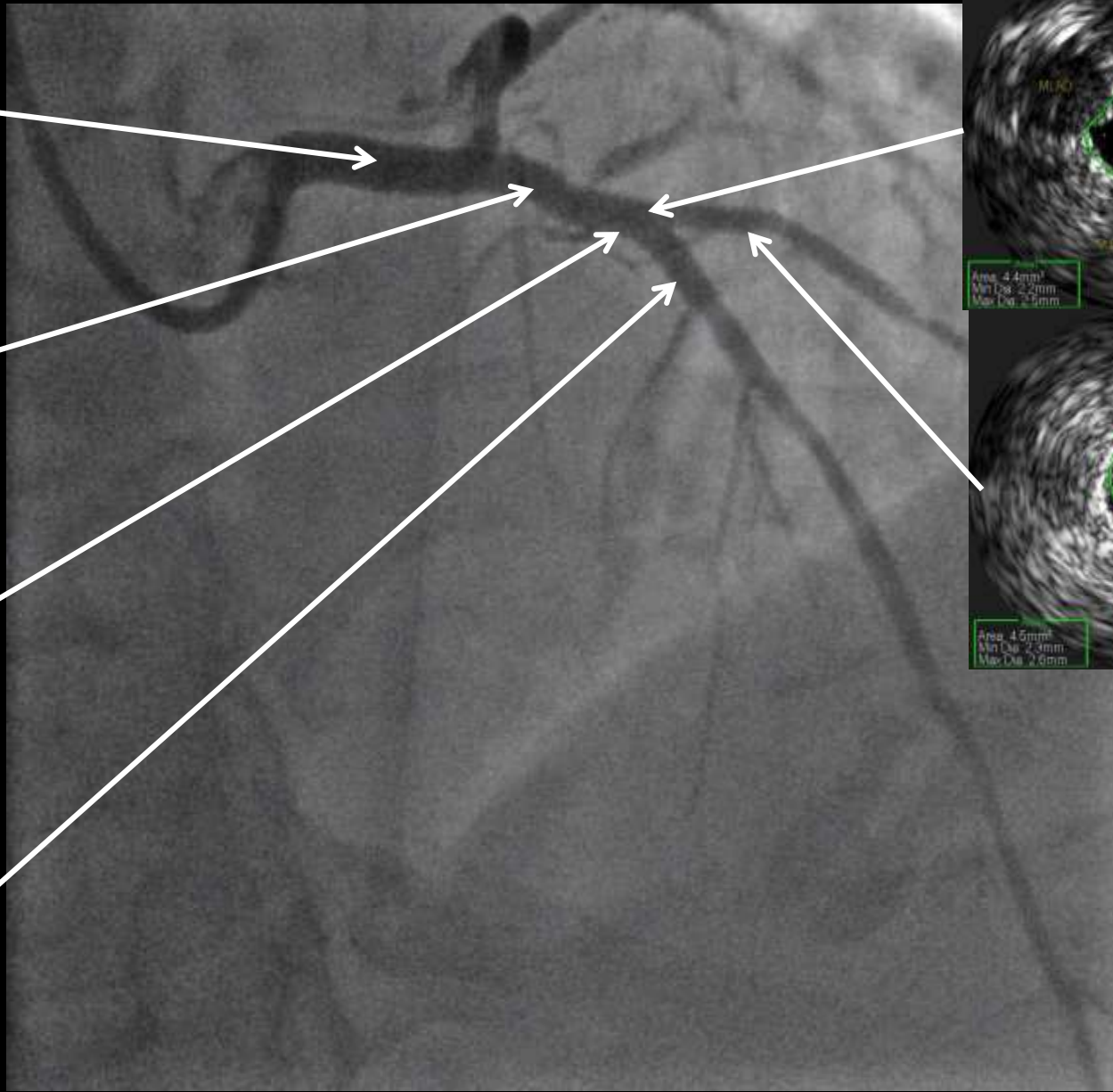
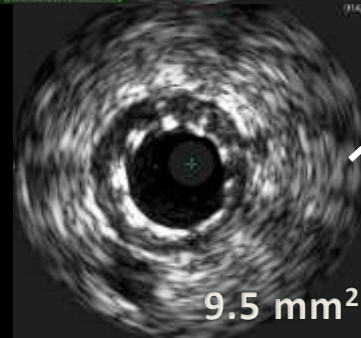
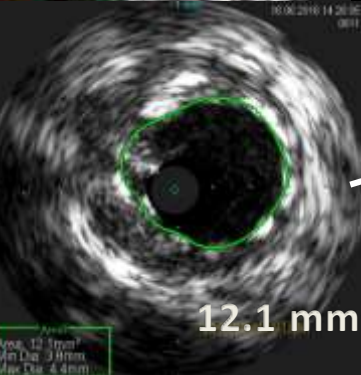
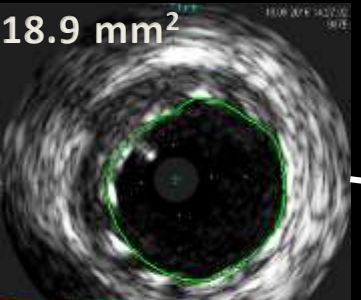


- Final



- Final





Follow-up

- DAPT was continued for a year then changed to SAPT
- Patient continues to be well 2 ½ years after procedure
- No further GI bleeding
- No further cardiac symptoms

Summary

- Very small and very large vessels pose a problem because most stent sizes don't match
- Use of dedicated small and large vessel stents is particularly useful for such patients
 - 2.25 mm stent for side branch
 - 4.5 mm stent for left main (can go to 5.75 mm)
- Complex stenting is made easier by a trackable and very visible stent



谢谢

SALAMAT

DANKKE

Cảm ơn

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Спасибо

MERCI!

감사

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Gracias

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