Evaluation of Immediate Complications after PCI

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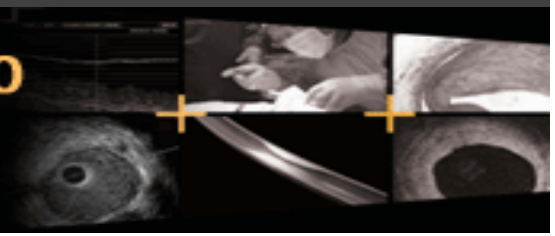


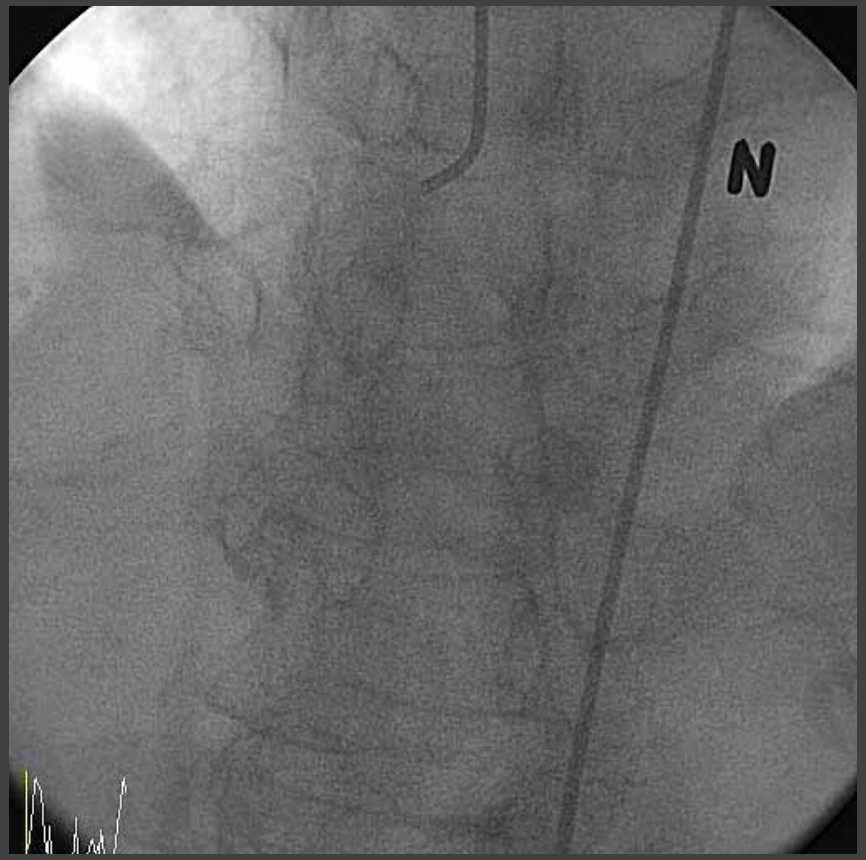
Case 1

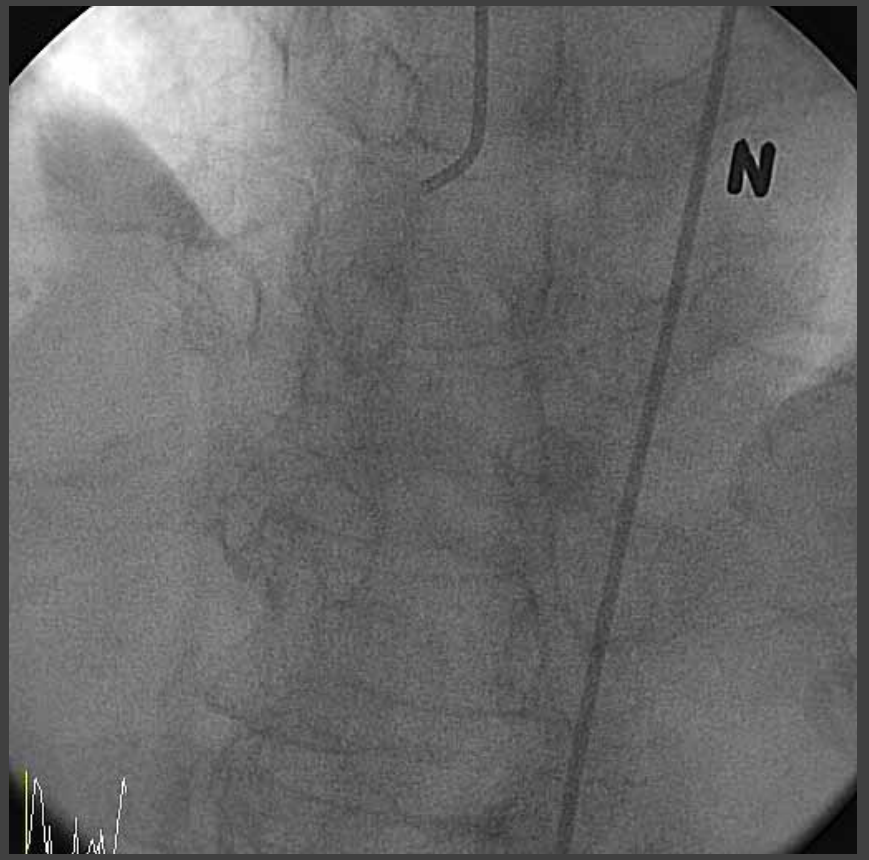
0603713

- 82 yrs old female
- Resting and aggravated chest pain
- Risk factor: Hypercholesterolemia
- EKG : T inversion in II, III, aVF
- Echocardiogram: no wall motion abnormality
- Cardiac enzyme : normal
- Diagnosis

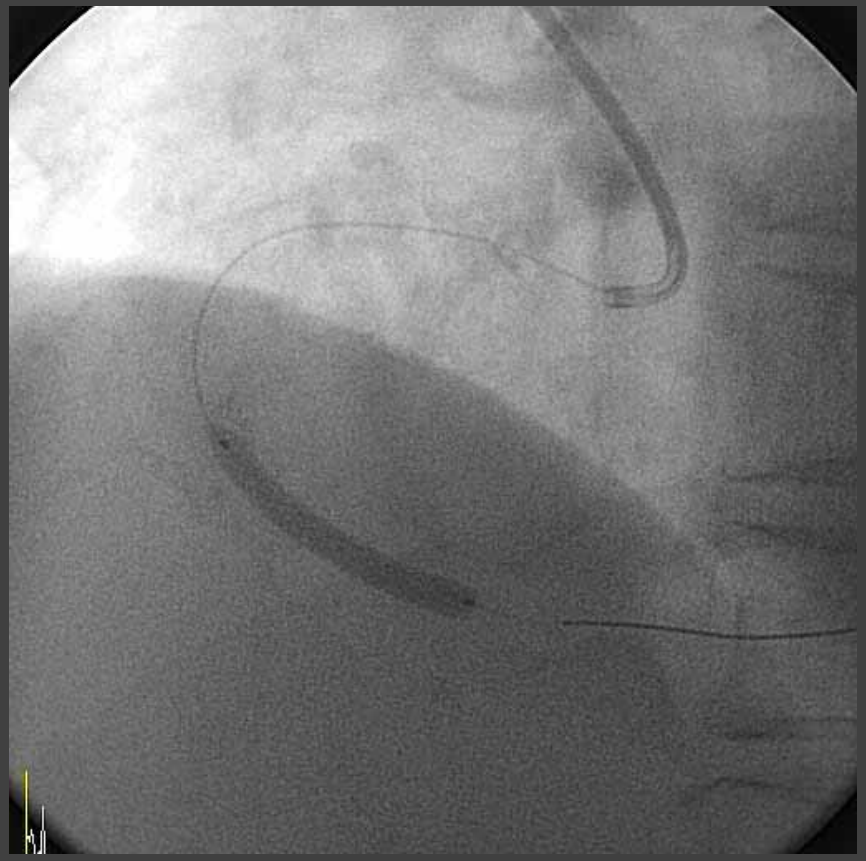
Unstable angina

Initial CAG

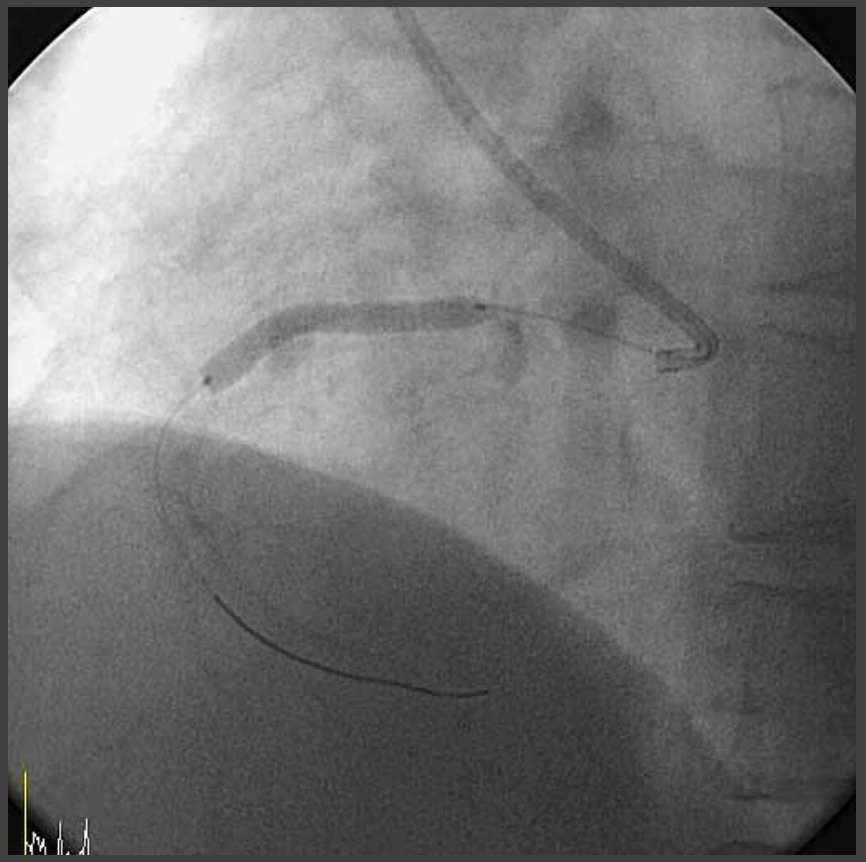




Stents

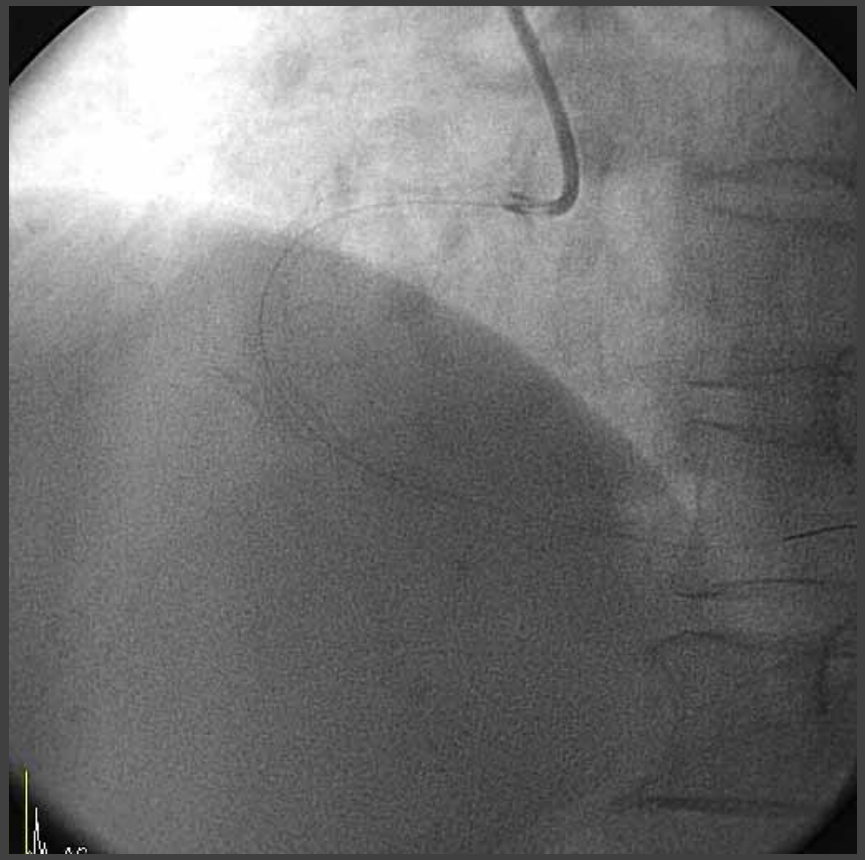


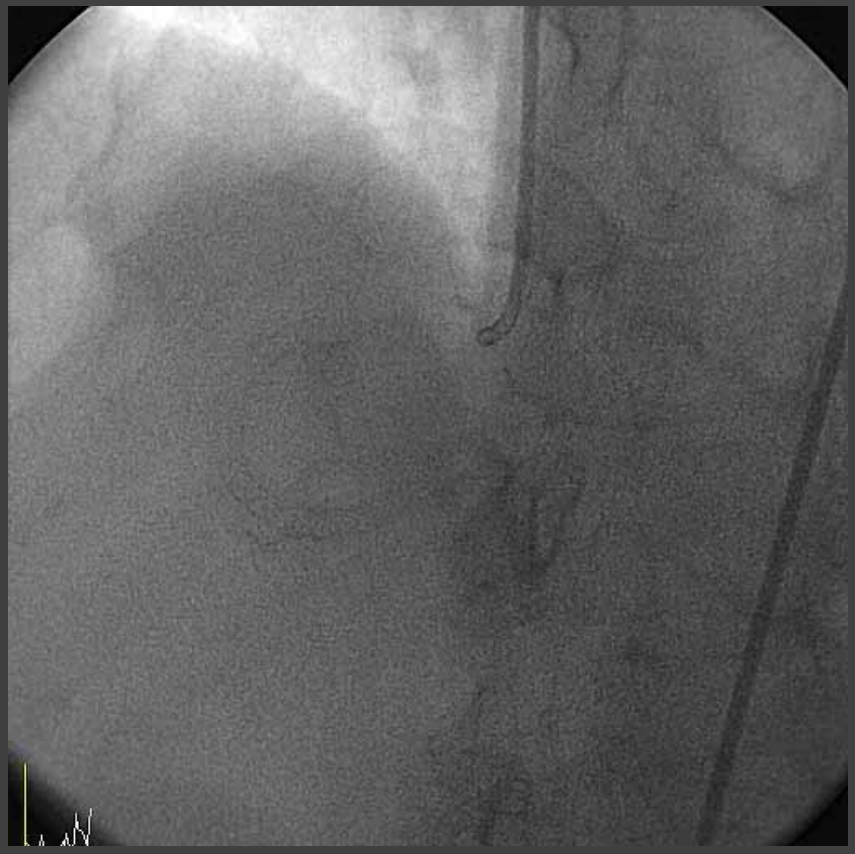
PICO elite stent 3.5, 28mm



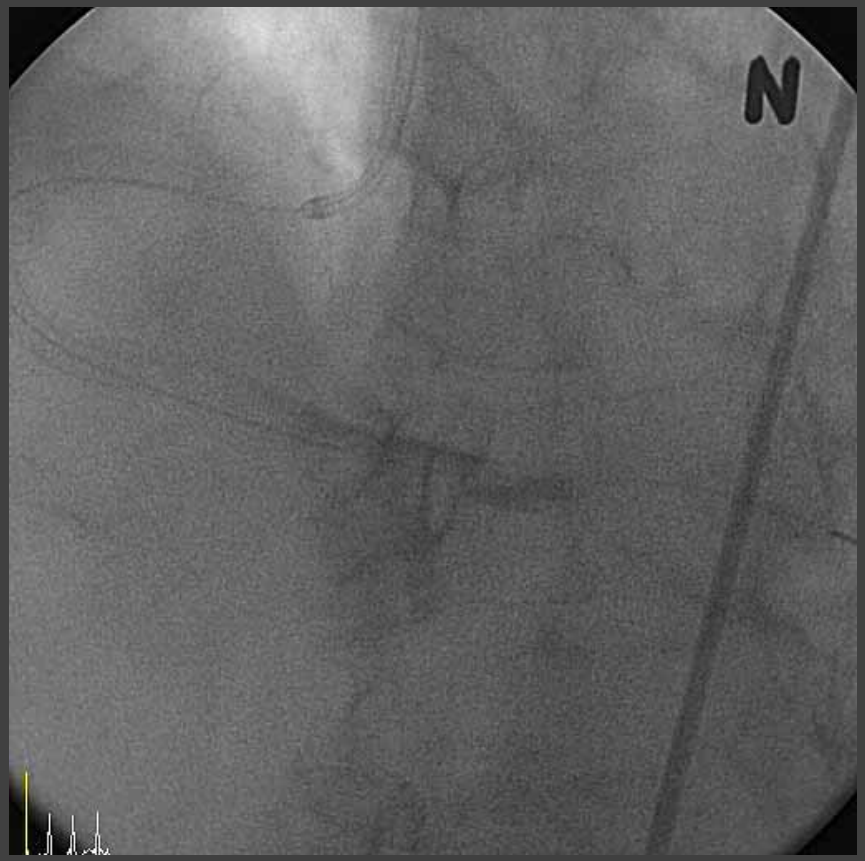
PICO elite stent 3.5x28mm

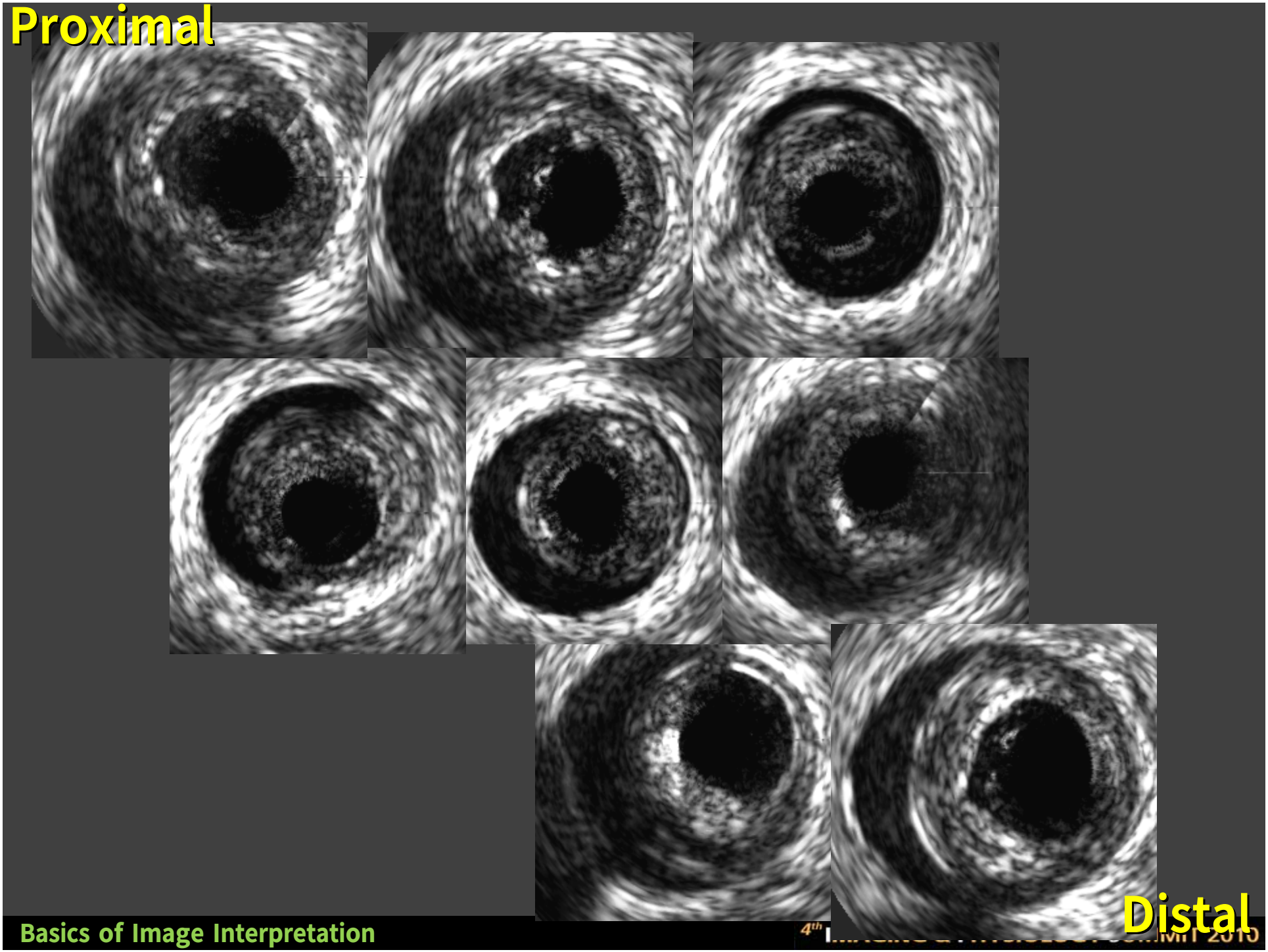
Final CAG



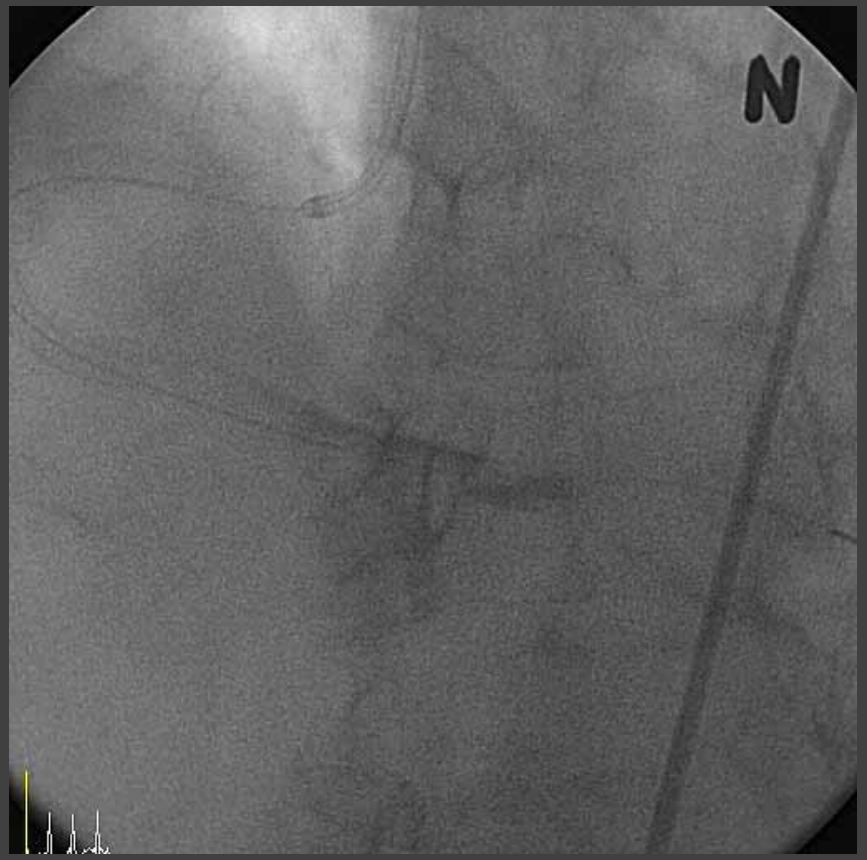


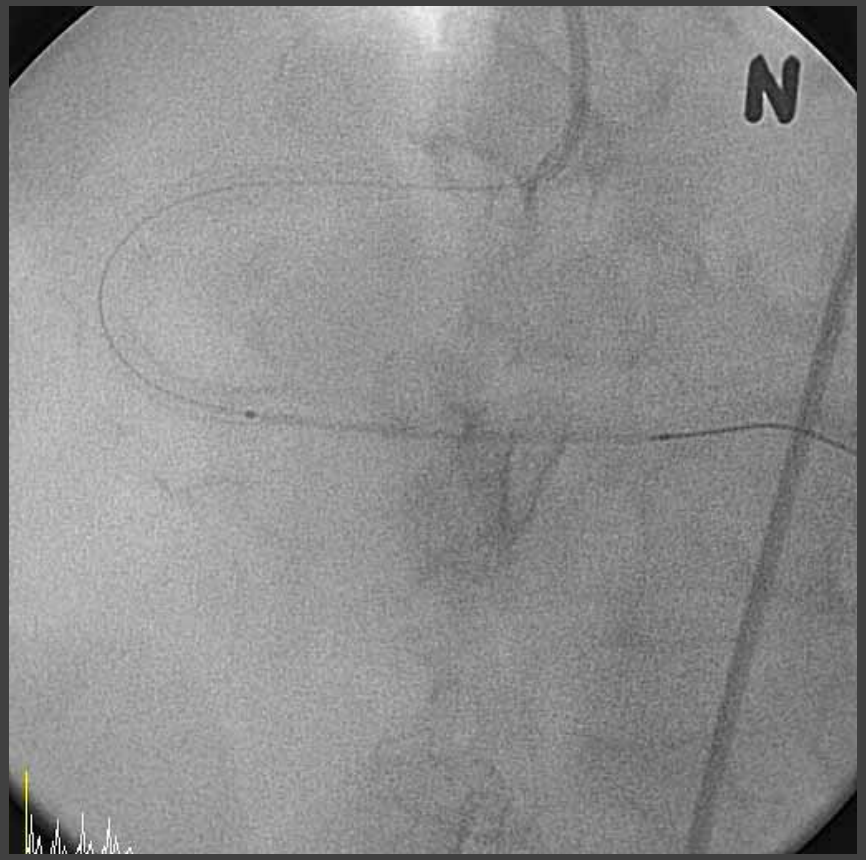
IVUS




Proximal
Distal

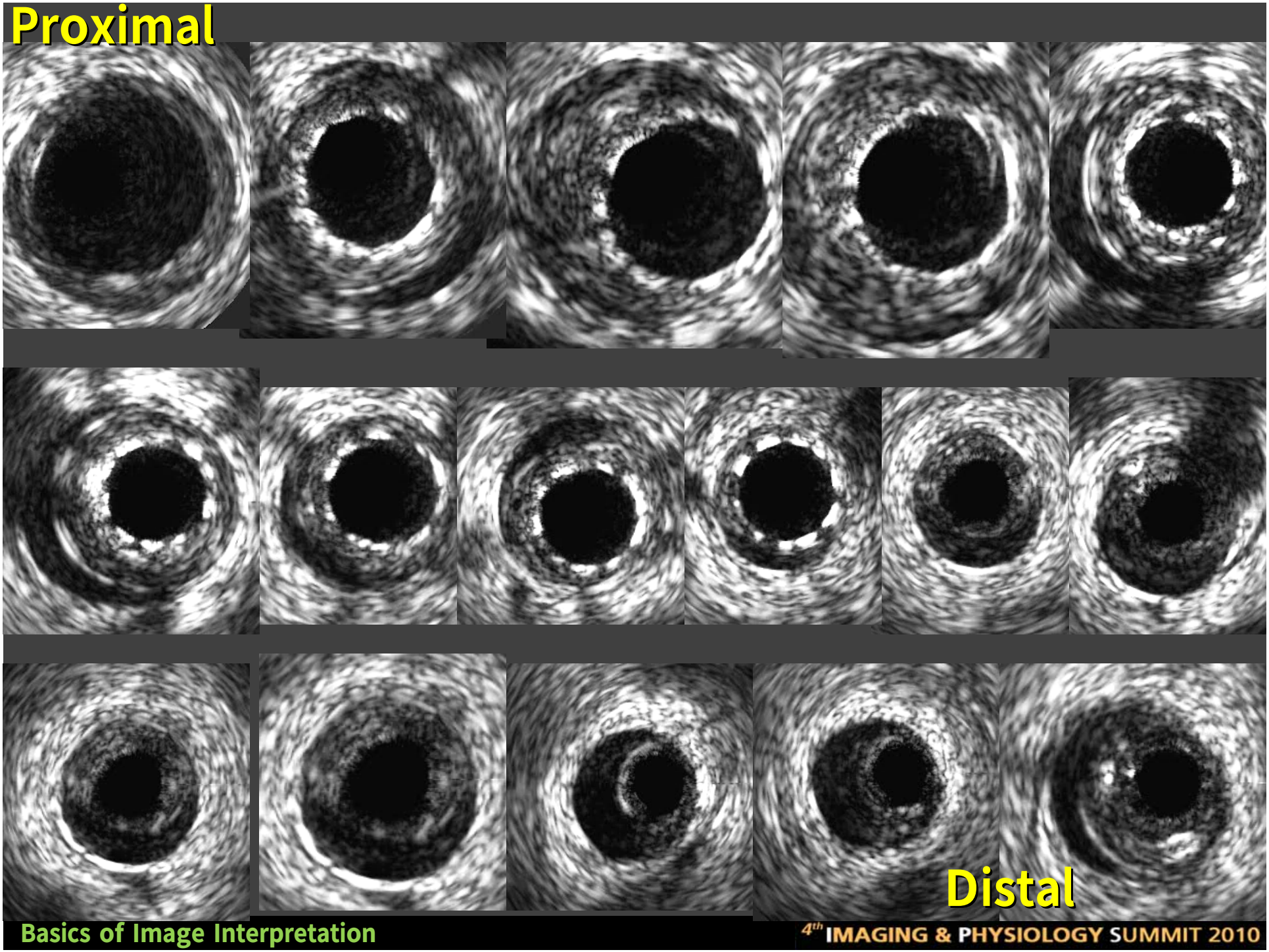
Rescue PCI



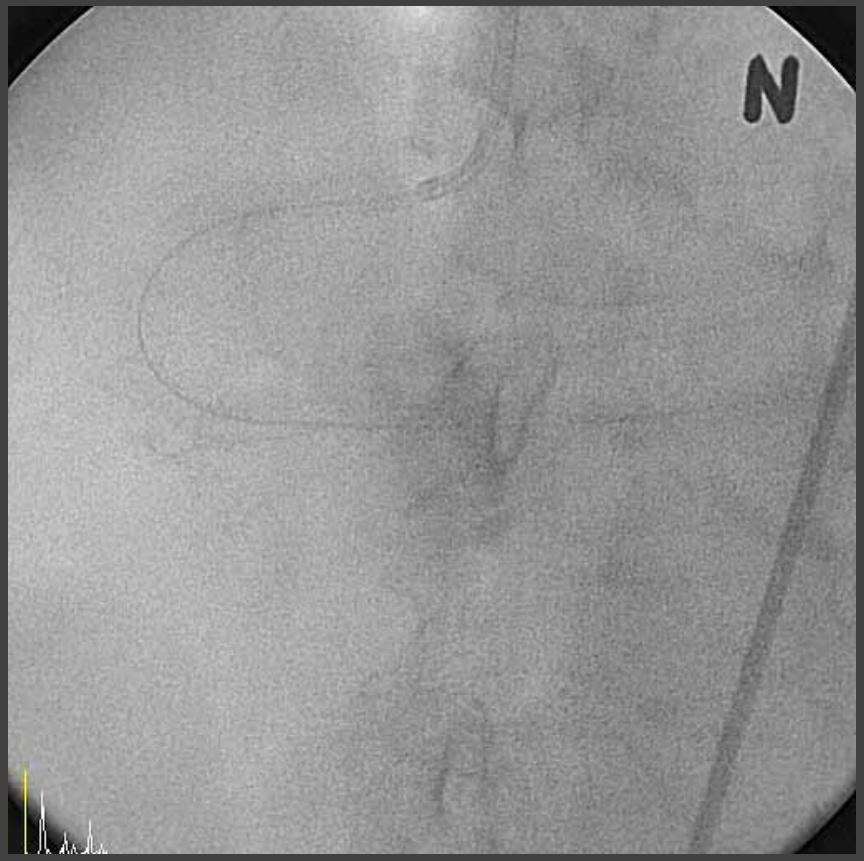


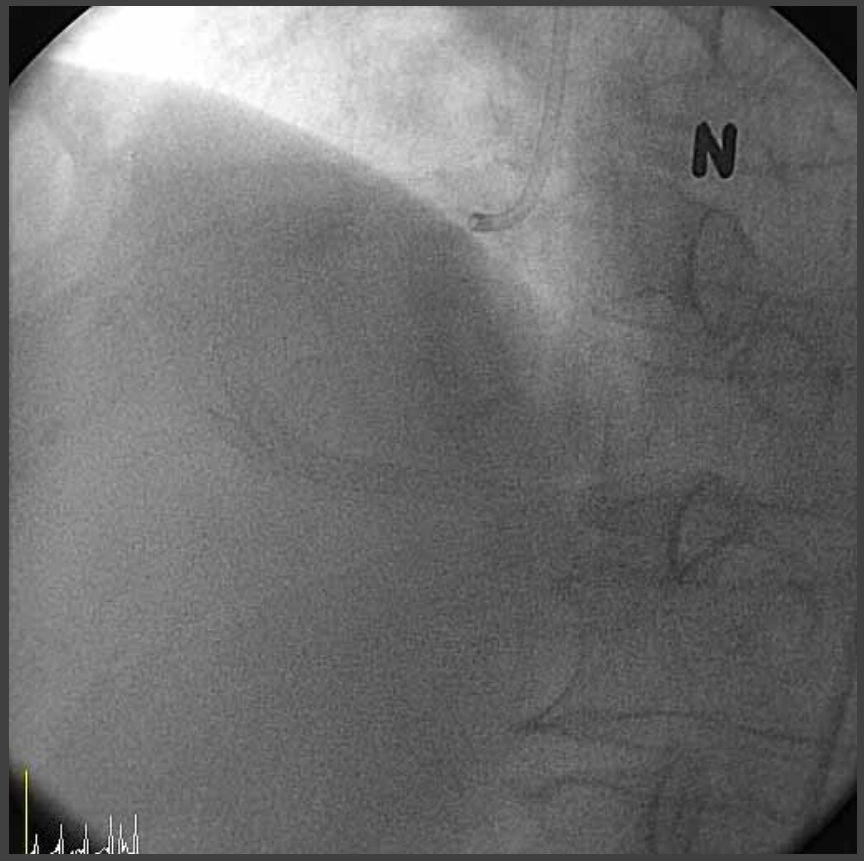
Taxus stent 3.0x38mm

IVUS, post-PCI


Proximal
Distal

Final CAG





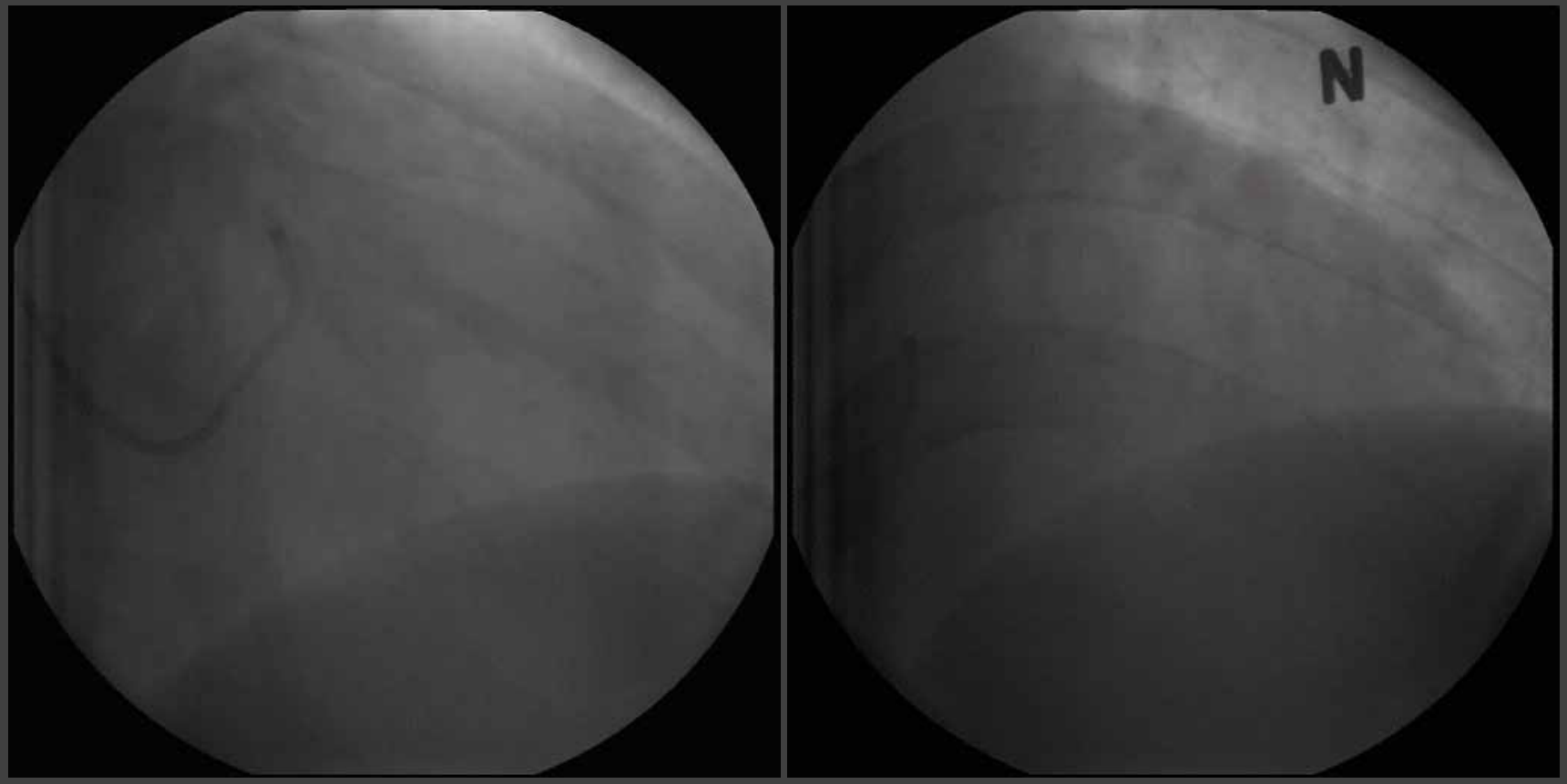
F/U CT-CAG , @ 1.5 yrs

Case 2

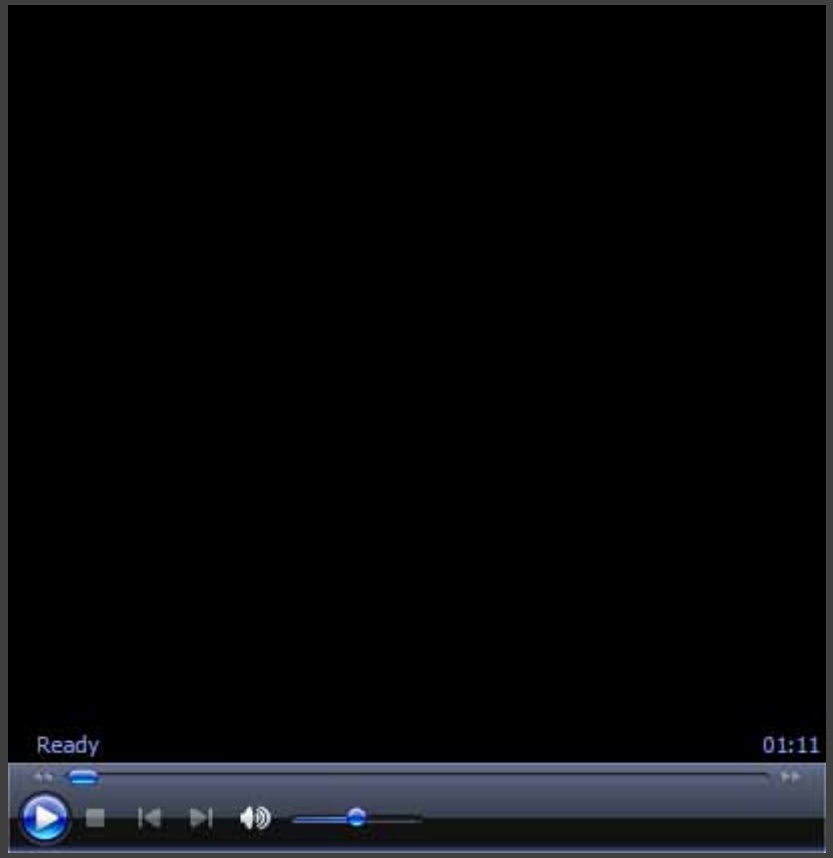
 # 0051912

- 67 yrs old female
- Resting chest pain
- Risk factors: Diabetes
- EKG : T change in $V_{3\sim6}$
- Echocardiogram : Akinesia of anterior apex
  LVEF = 49%
- Cardiac enzyme : elevated
- Diagnosis
  Non ST elevation MI

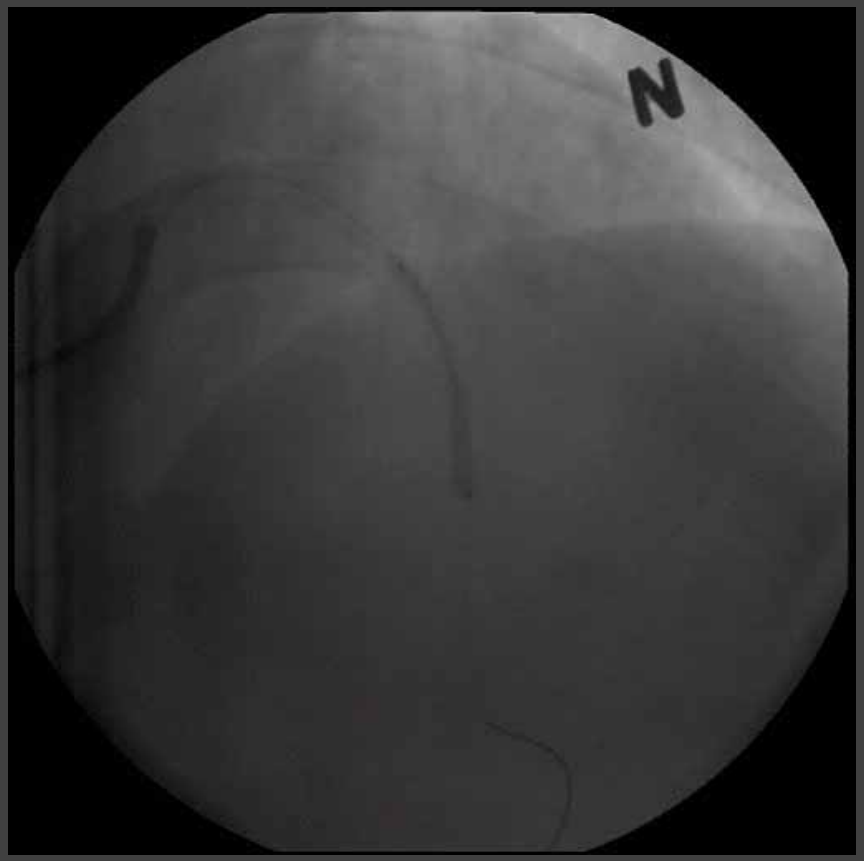
Initial CAG



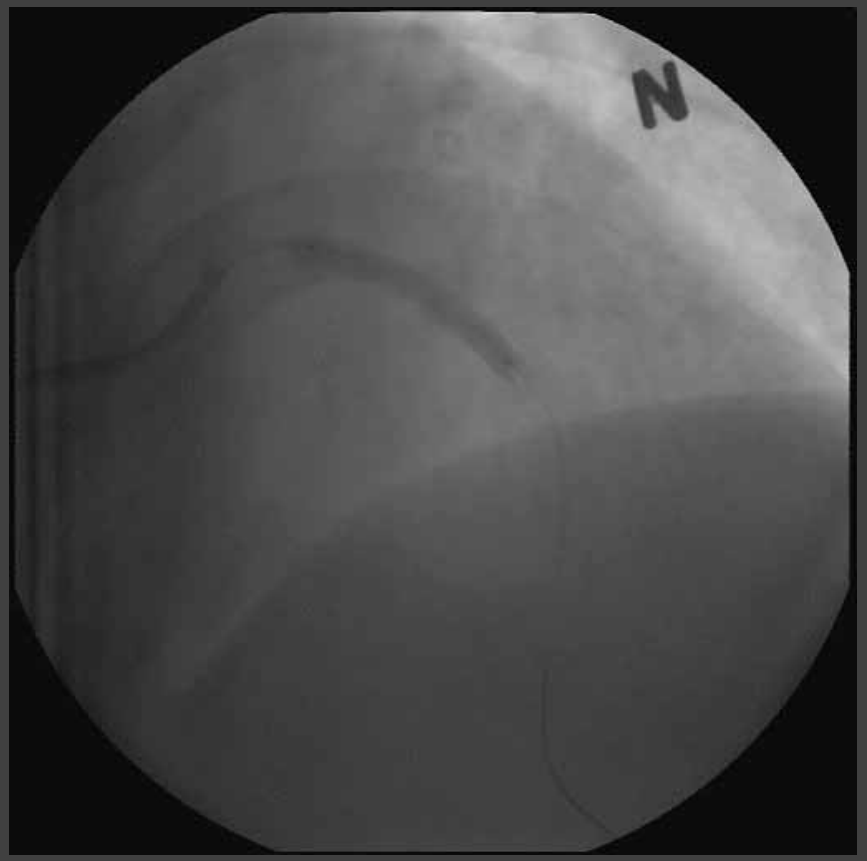
IVUS



Stents

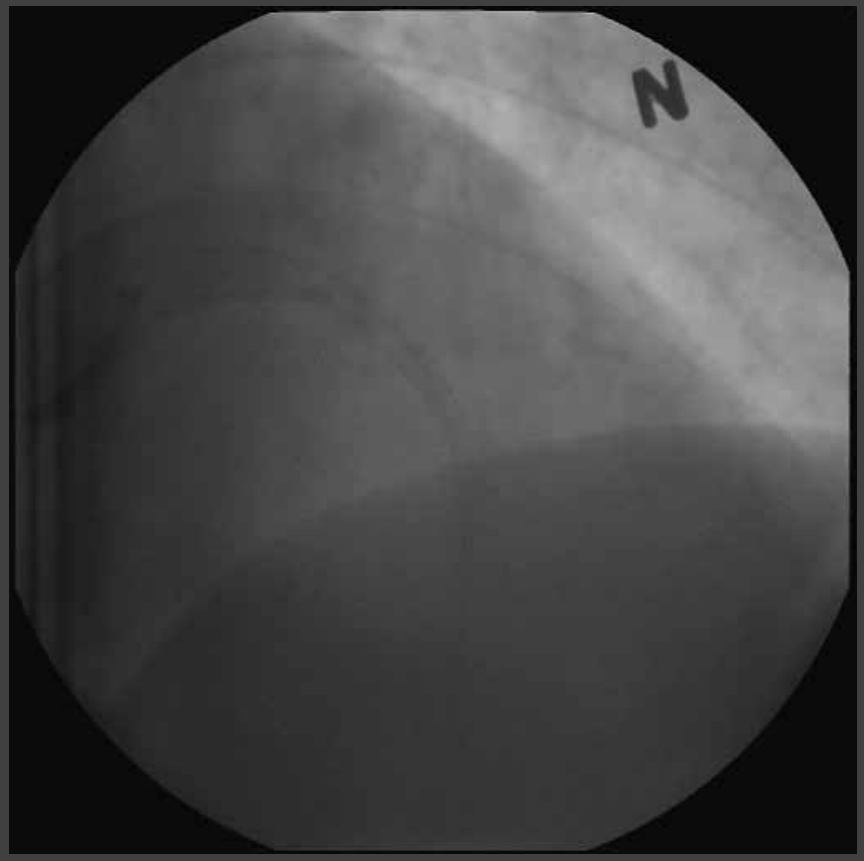


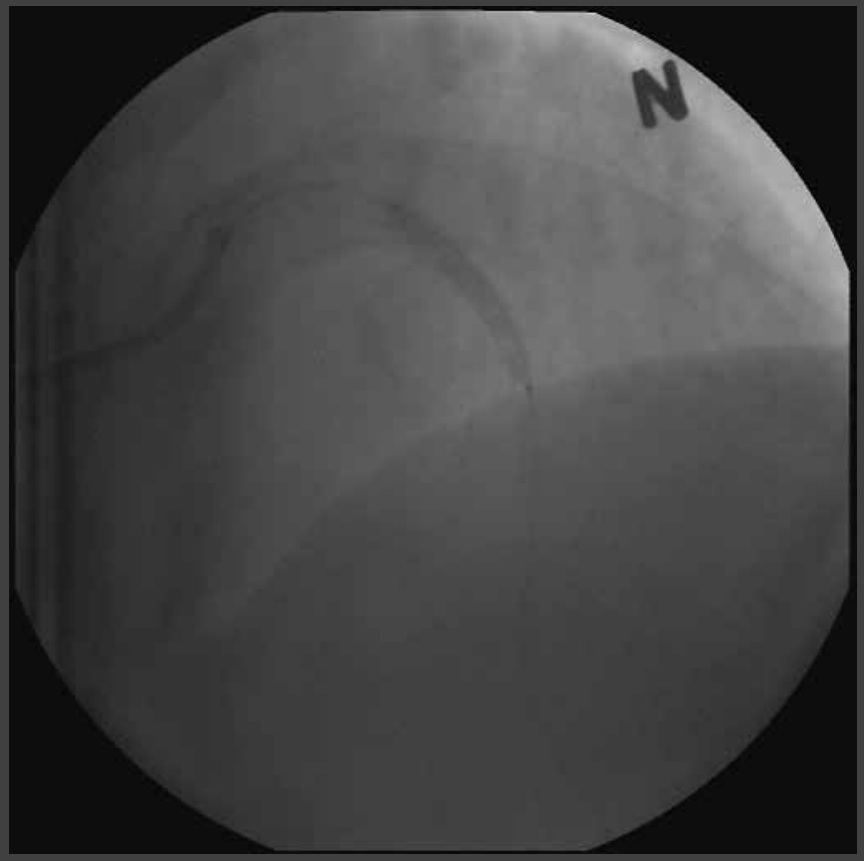
Xience stent 3.0, 28mm

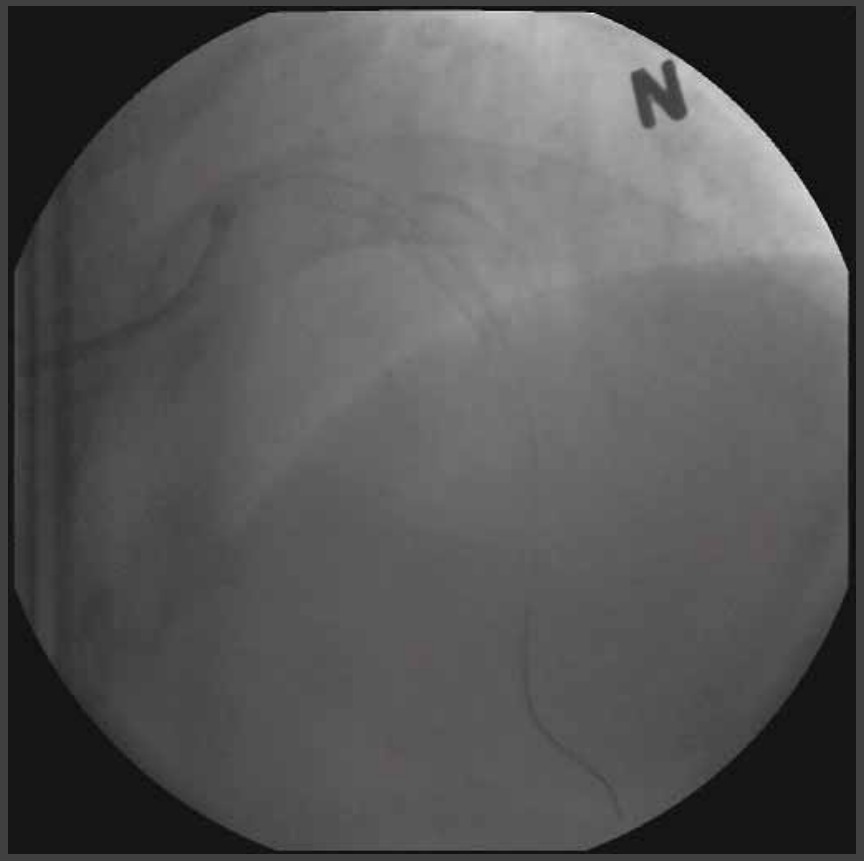


3.5, 28 mm

Higher pressure



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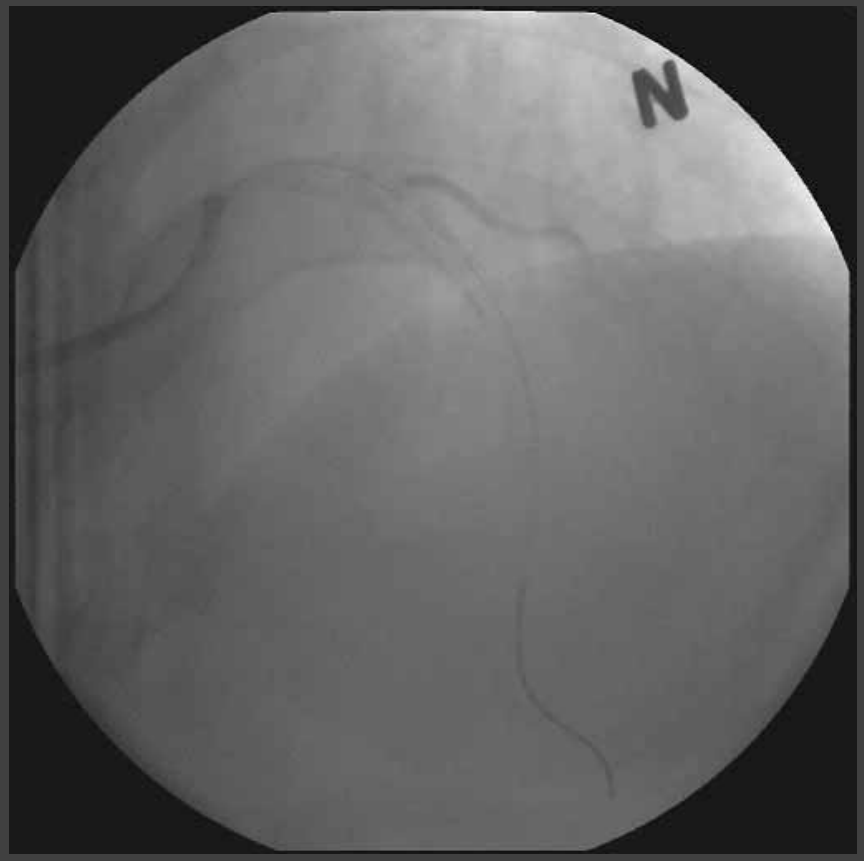
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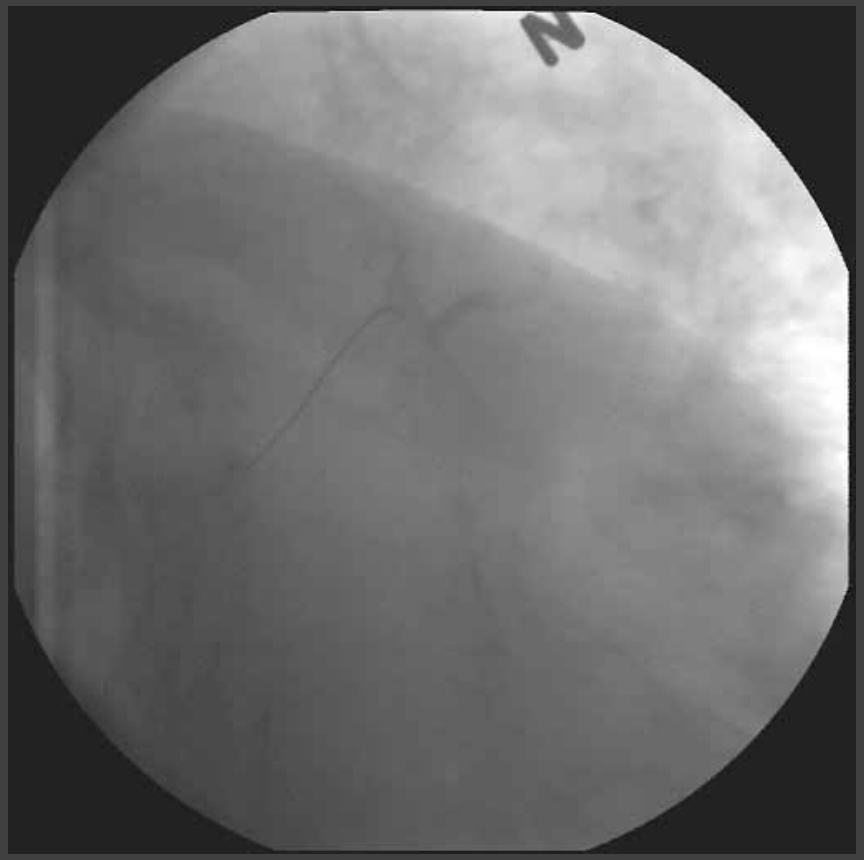
IVUS



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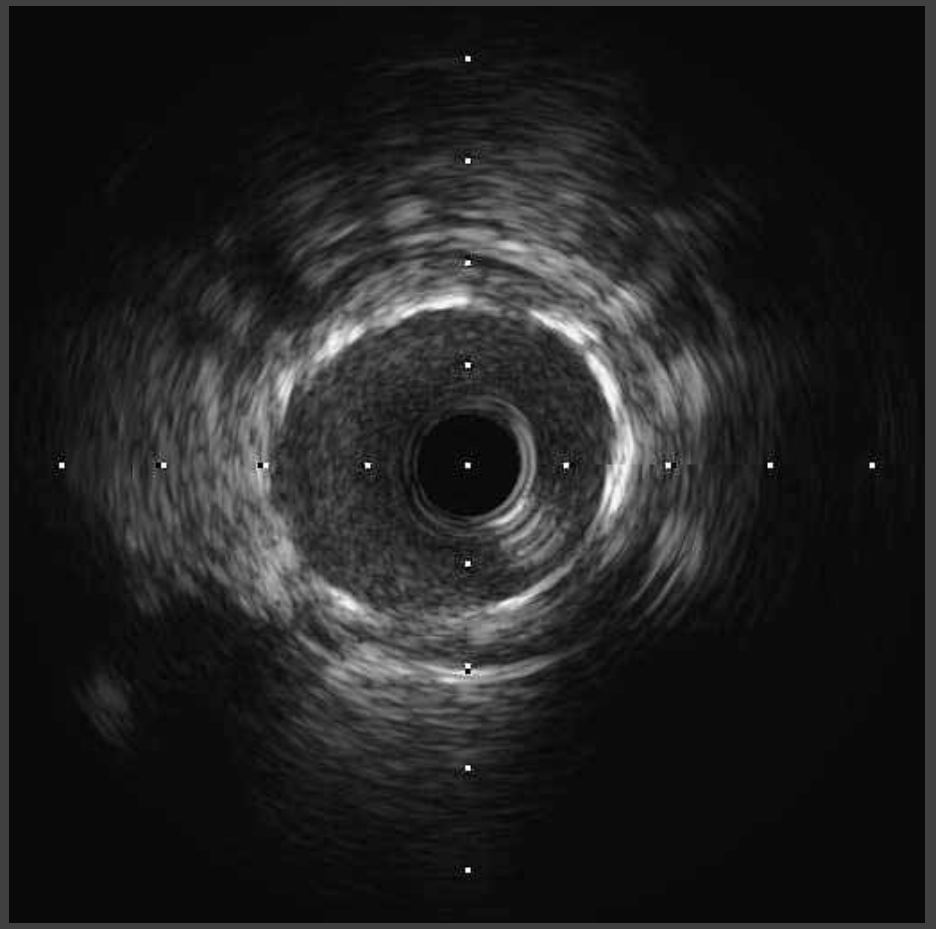
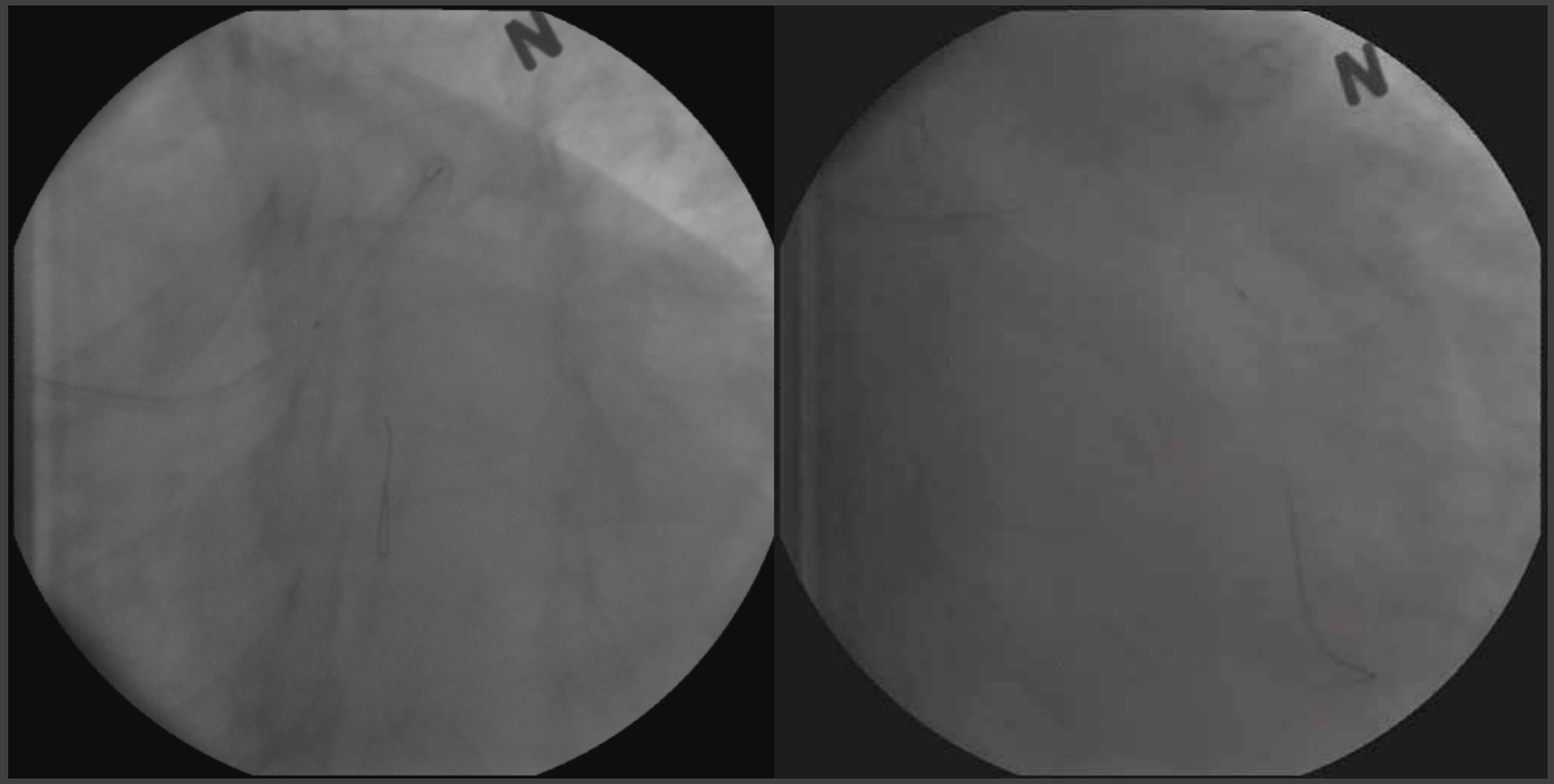
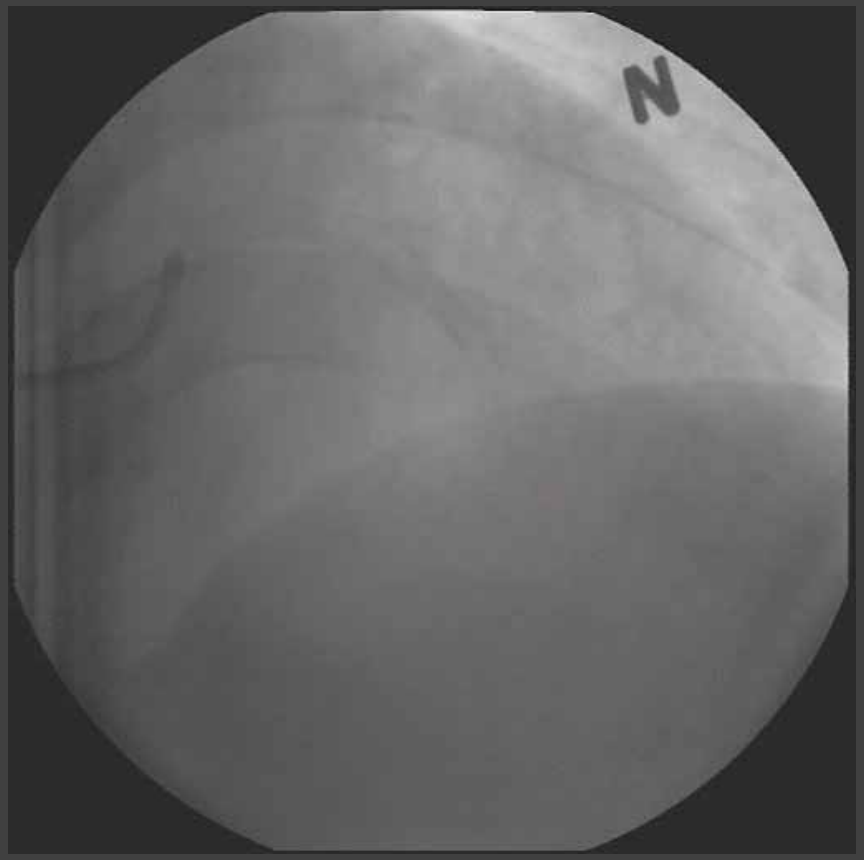


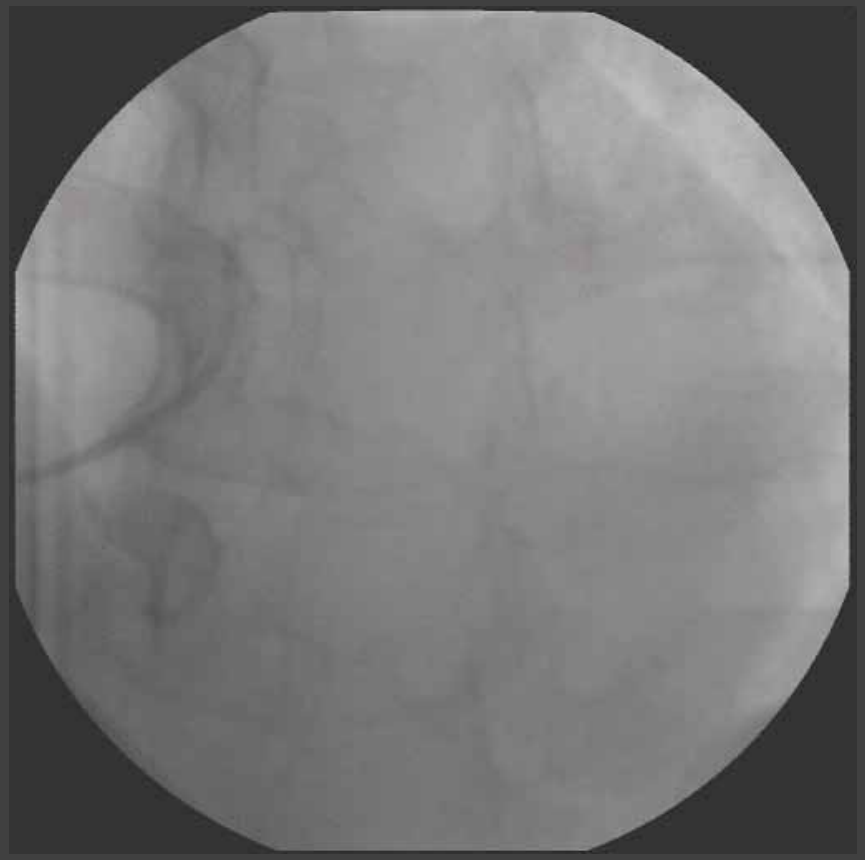


Thrombus aspiration
GP IIbIIIa inhibitor I.V. infusion

Final & F/U CAGs



Final

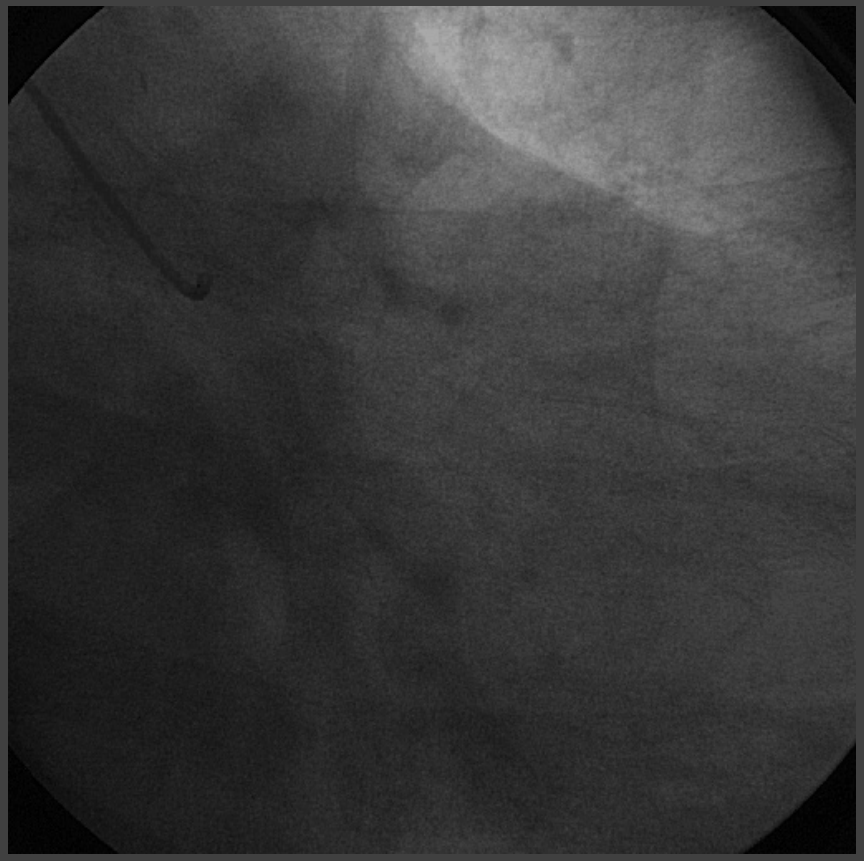


3 days later

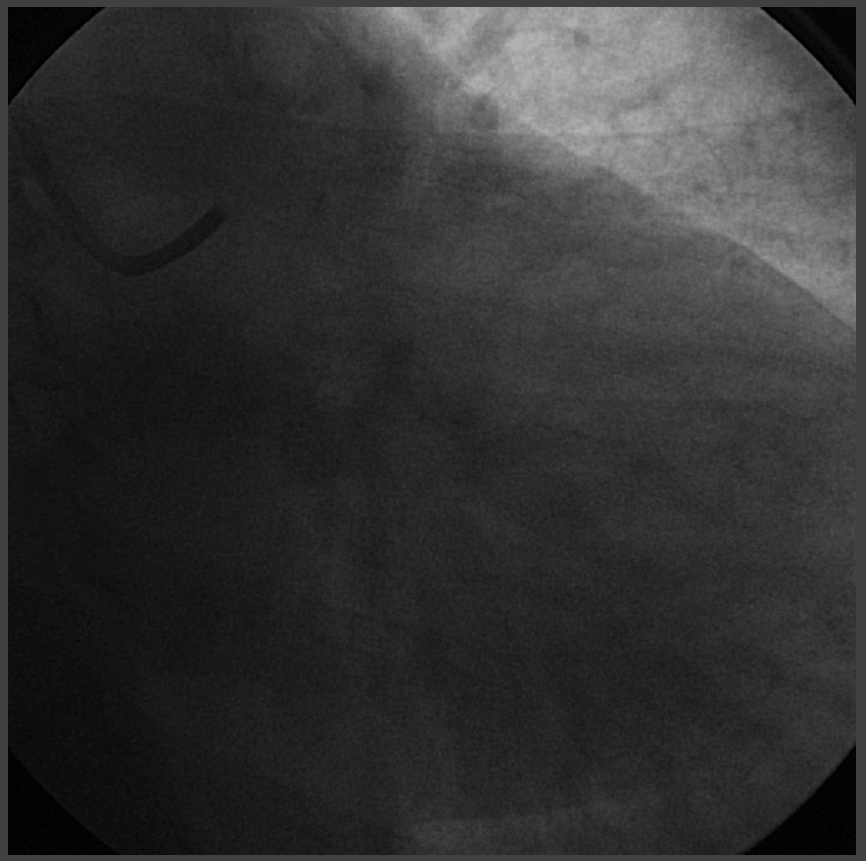
Case 3

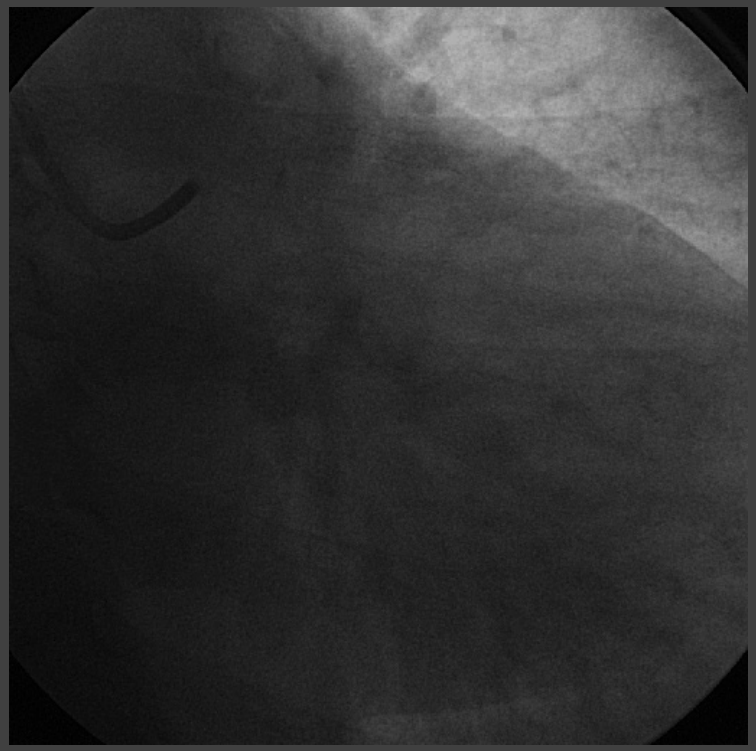
- Exertional chest pain
- Stable angina
- 2 vessel disease
  - Mid-LAD 80% stenosis : Promus 3.0, 28 mm
  - dis-LCX 80% steosis: Promus 2.75, 23 mm

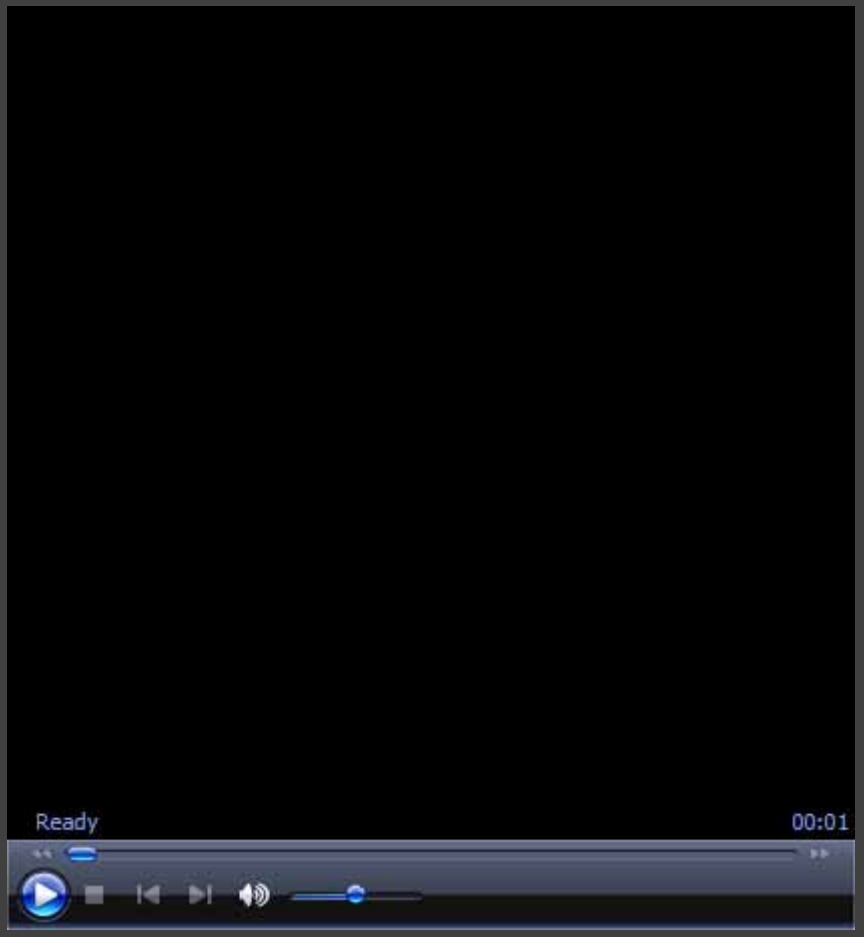
Stent for d-LCX



Promus 2.75, 23 mm






Ready
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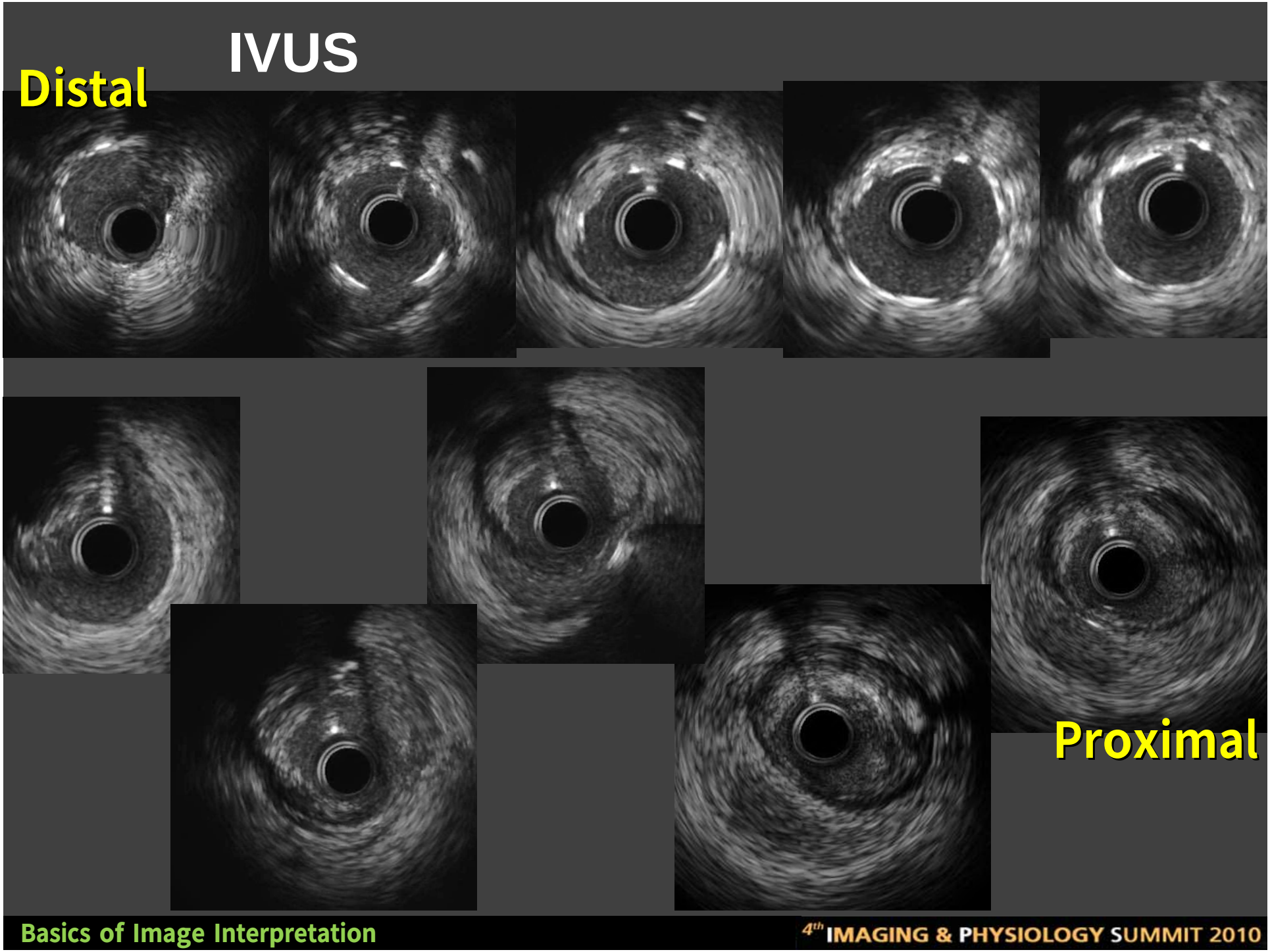
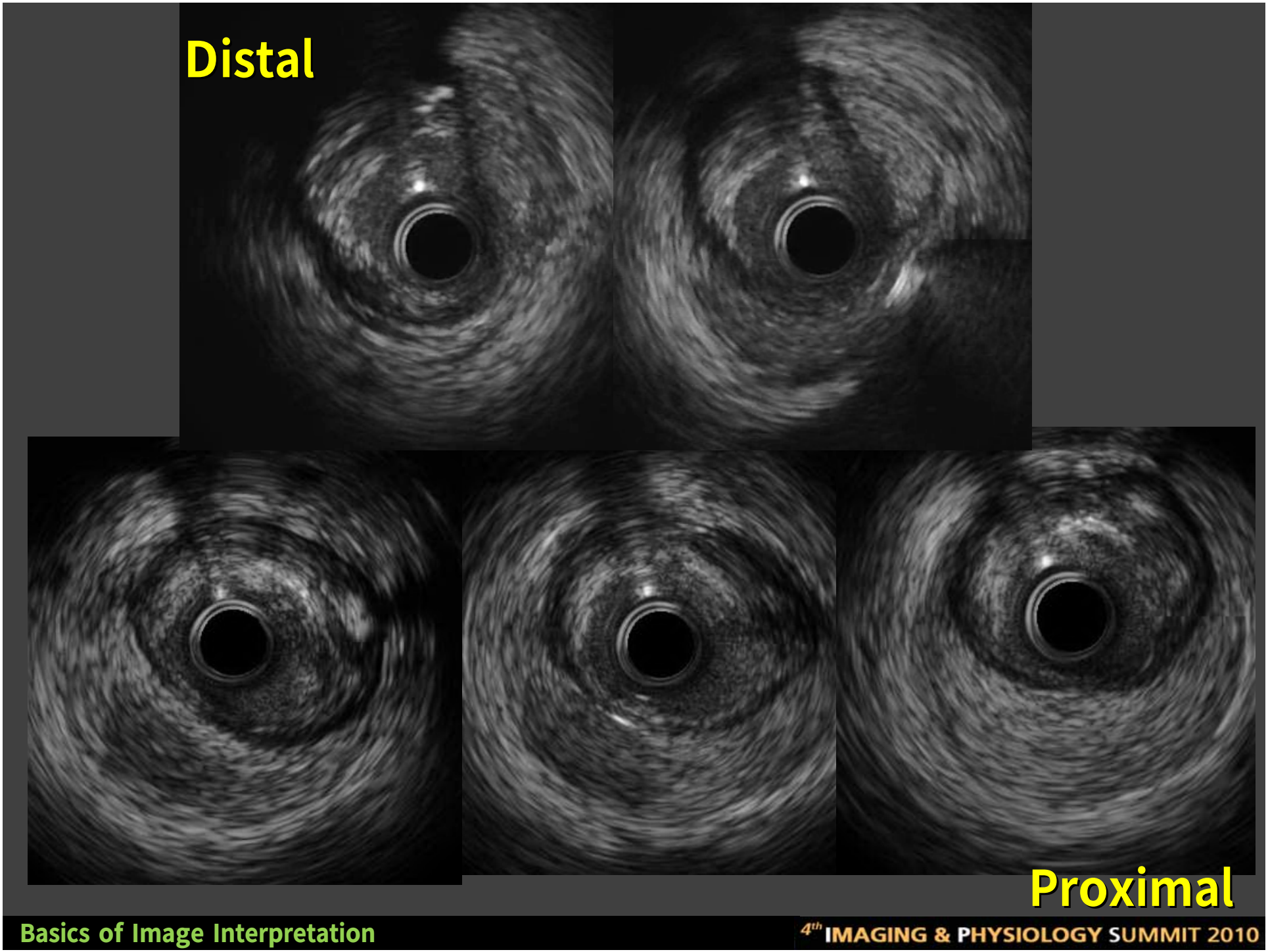
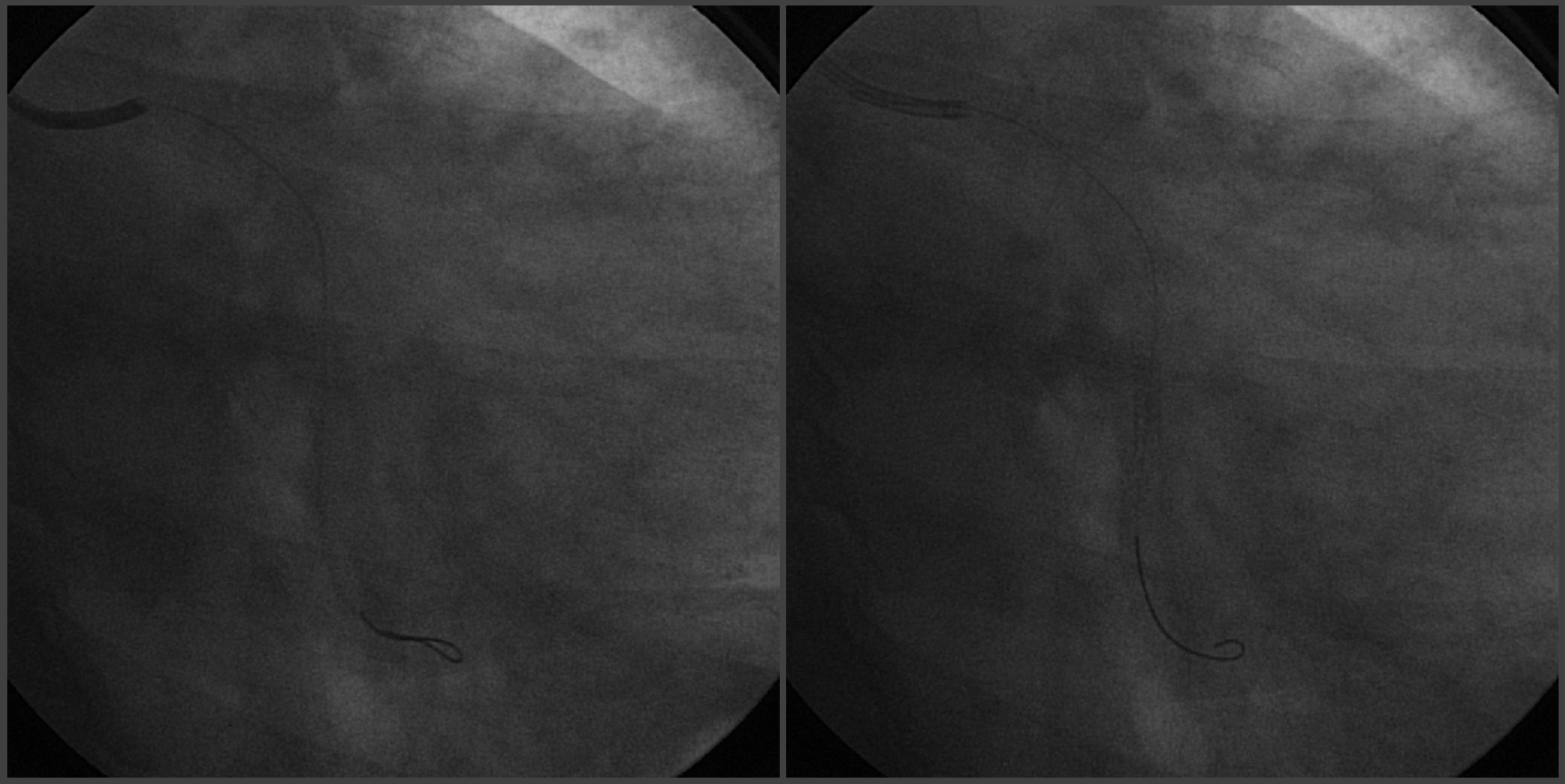
IVUS




Distal
Proximal

Rescue PCI



Dissections

Severity

1) Depth
2) Circumferential extent (in degrees of arc)
3) Length
4) Size of residual lumen (CSA)
5) CSA of the luminal dissection

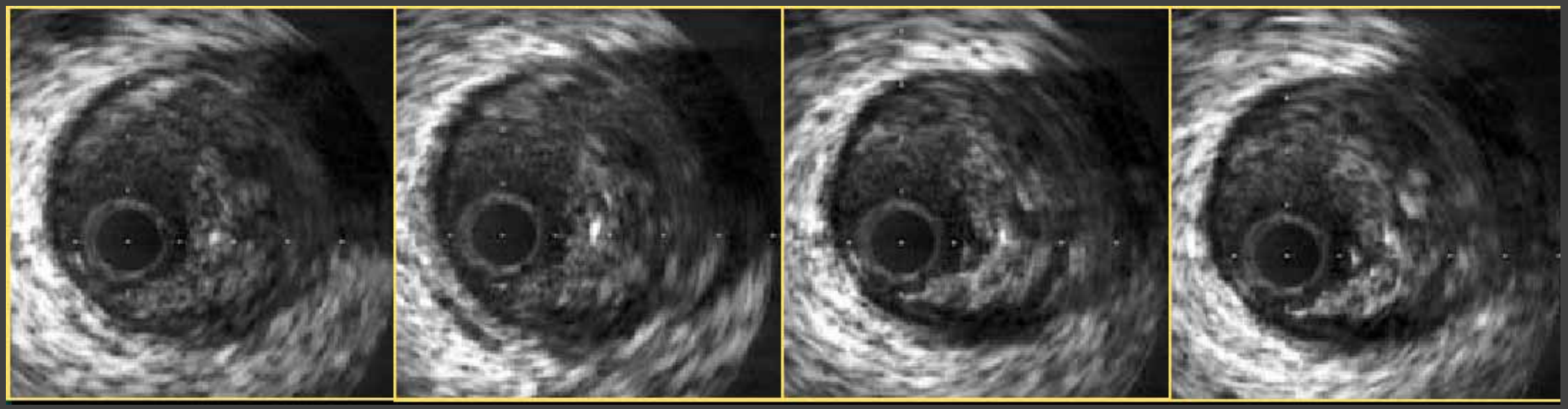
Classification

Intimal	Limited to the intima or atheroma, and not extending to the media
Medial	Extending into the media
Adventitial	Extending through the EEM
Intramural hematoma	accumulation of blood within the medial space, displacing the internal elastic membrane inward and EEM outward
Intra-stent	Separation of neointimal hyperplasia from stent struts, usually seen only after treatment of in-stent restenosis.

Thrombus

- Intraluminal mass, often with a layered, lobulated or pedunculated appearance
- Relatively echolucent or variable gray-scale with speckling or scintillation
- Blood flow in microchannels may also be apparent within some thrombi

No one feature is pathognomonic for thrombus and the diagnosis of thrombus by IVUS should be considered presumptive.



American Museum of Natural History in New York

THANK YOU