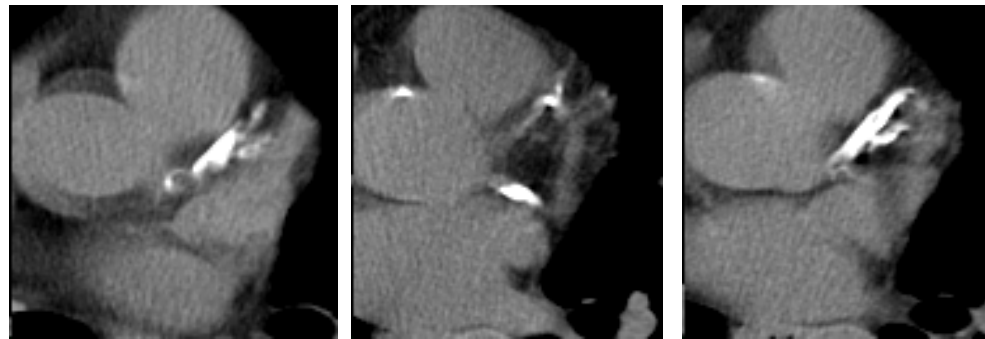

IVUS Guided PCI for Ambiguous LMCA Lesion

**Inje University
IlsanPaik Hospital
Sung Yun Lee**

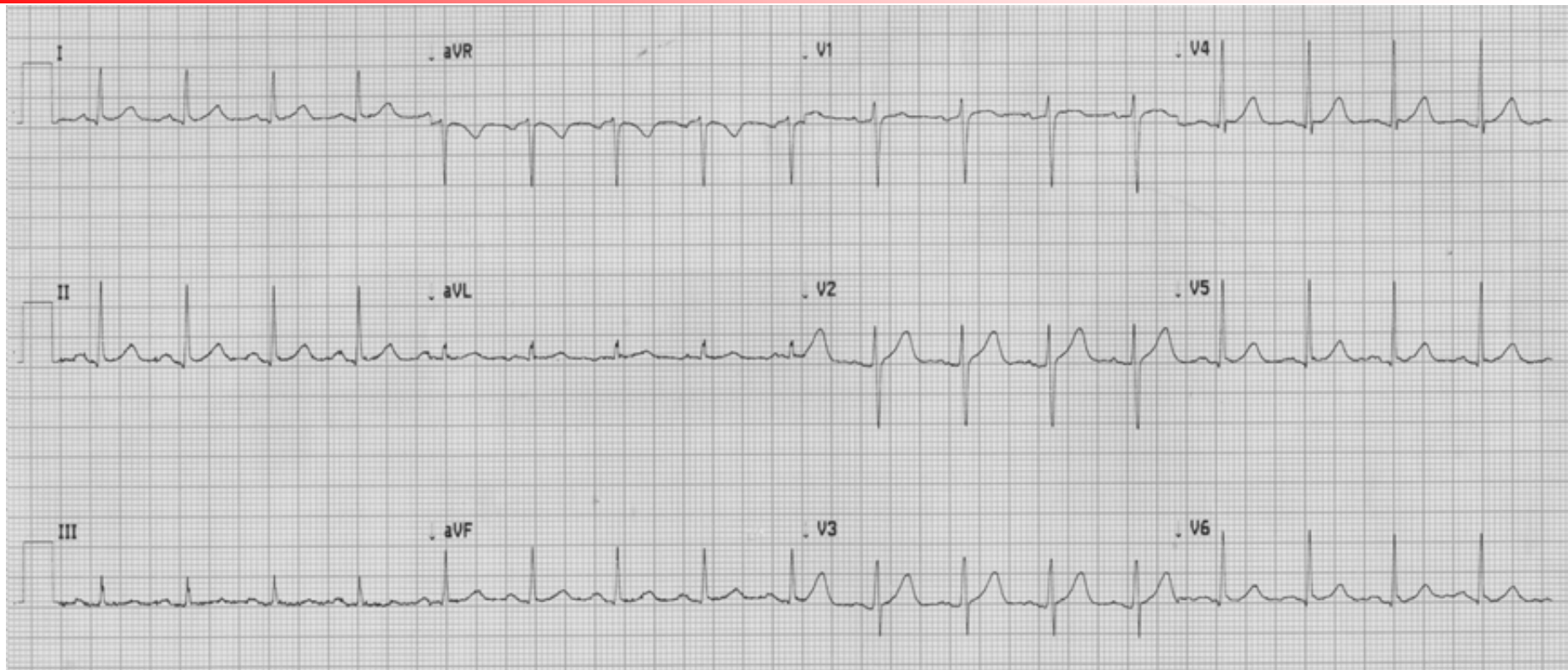
Case1

#0054793

- M/ 54
- Silent ischemia
 - No chest pain
 - Severe calcification at Chest CT



- Treadmill test positive
- Risk factor
 - Diabetes for 20 yrs
 - Dys-lipidemia
 - Ex-smoker

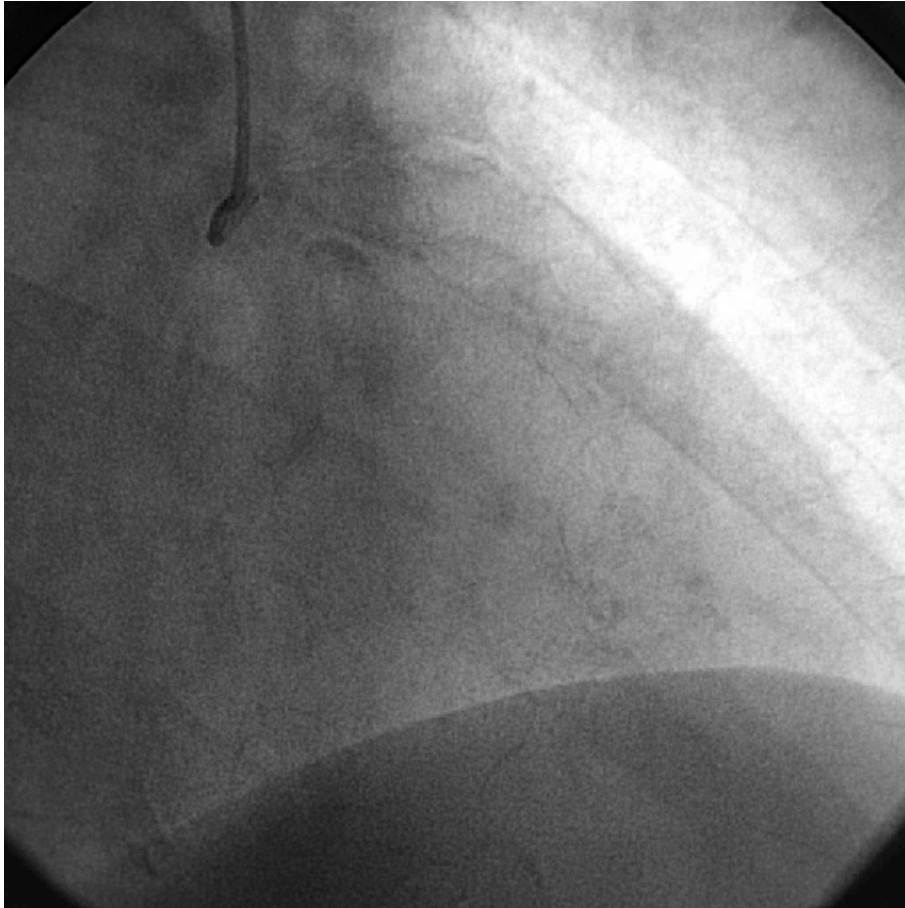


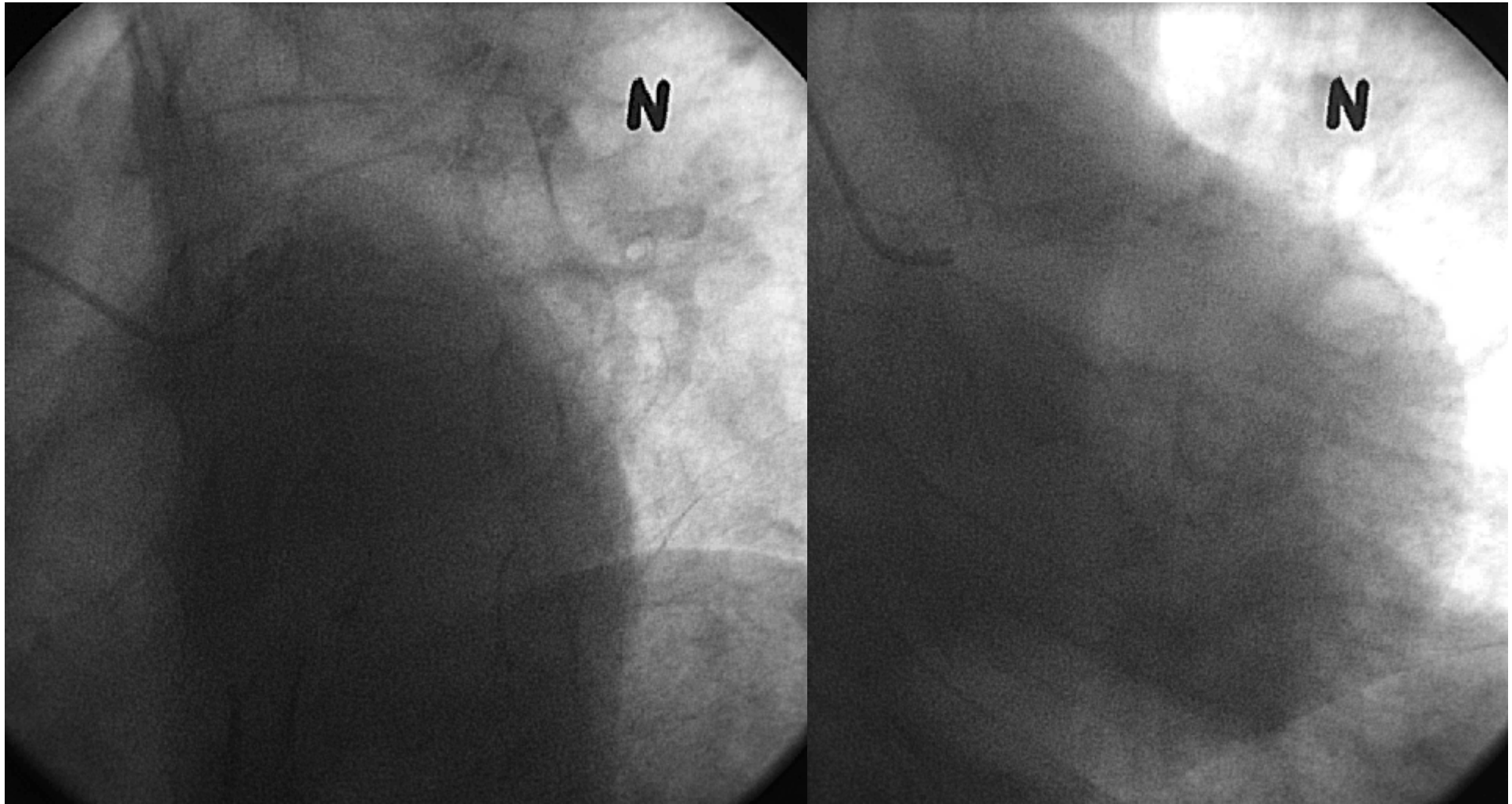
Echocardiography

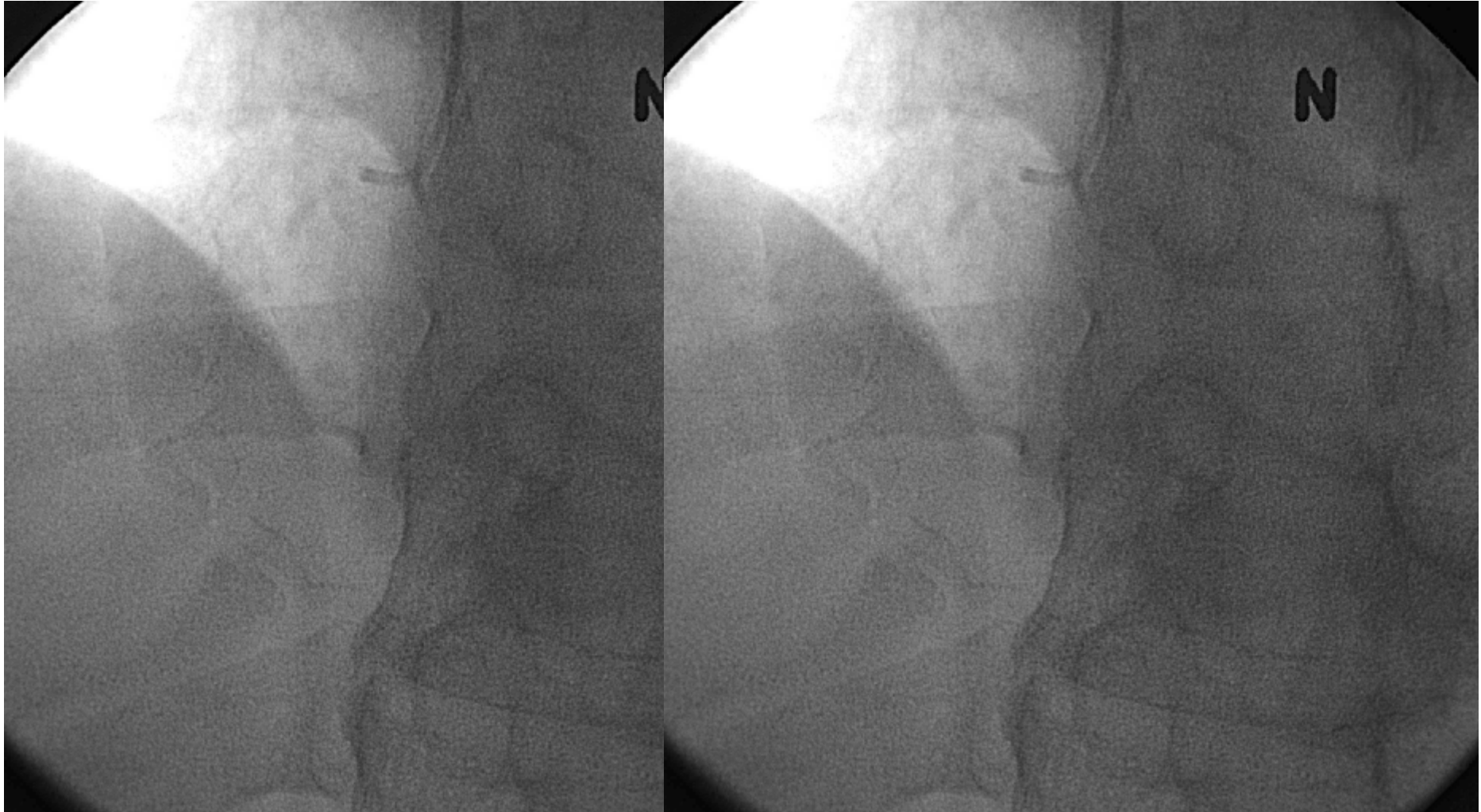
- Normal LV cavity size
- normal LV systolic function, EF=61%
- Normal IVS & LVPW thickness
- No regional wall motion abnormality



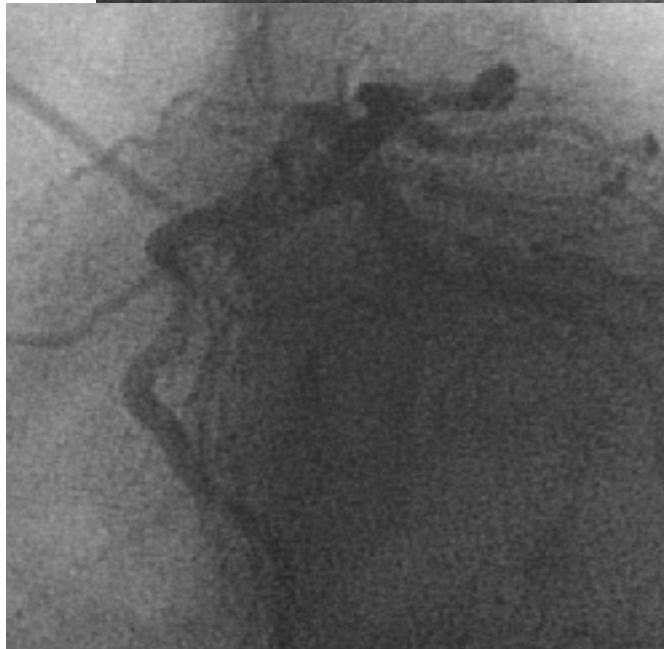
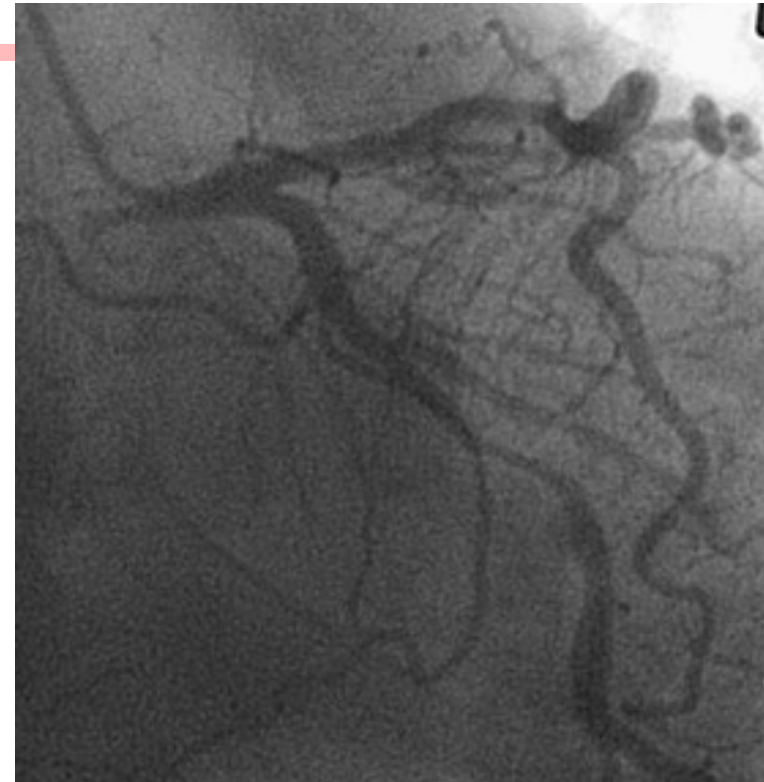
Baseline CAG







CAG Summary



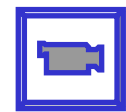
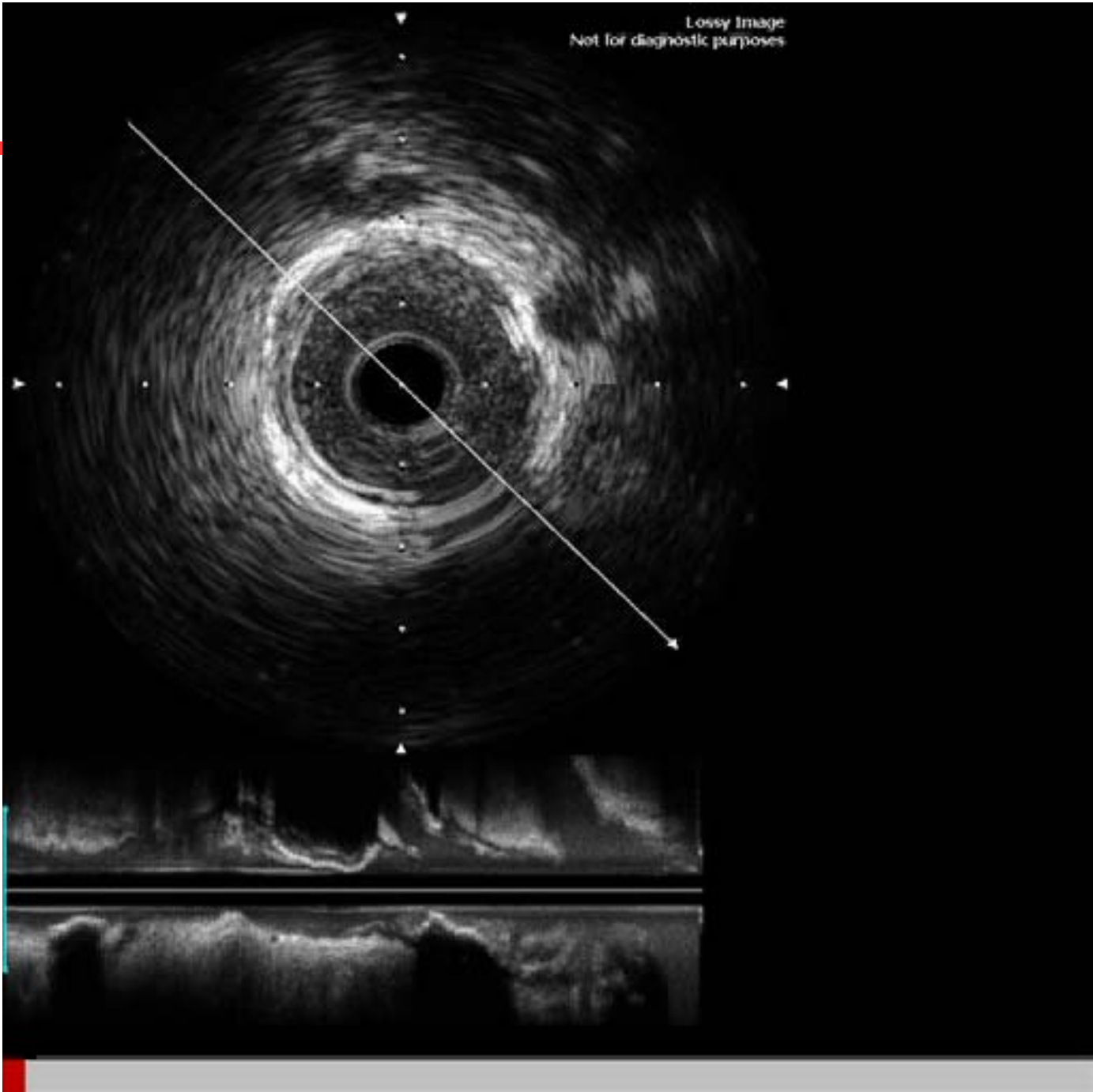
Lo~~~ong calcified lesions
pro-LAD ~ mid LAD
pro-LCX ~ distal LAD

Ambiguous severity of LMCA stenosis



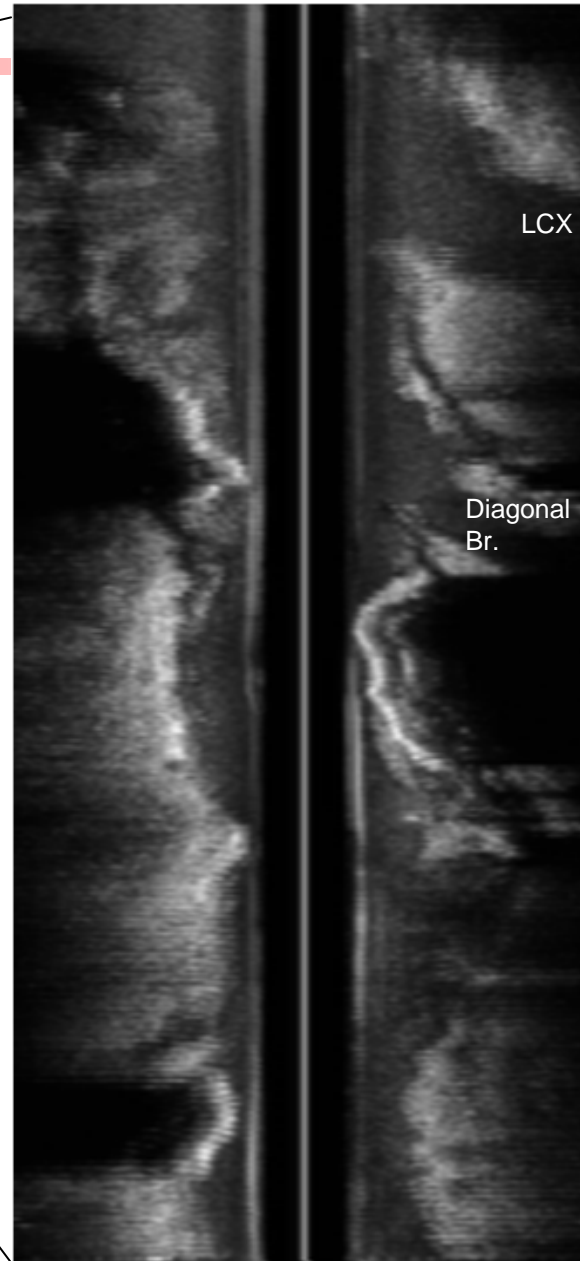
Taxus stent 3.0, 38 mm

Lossy Image
Not for diagnostic purposes



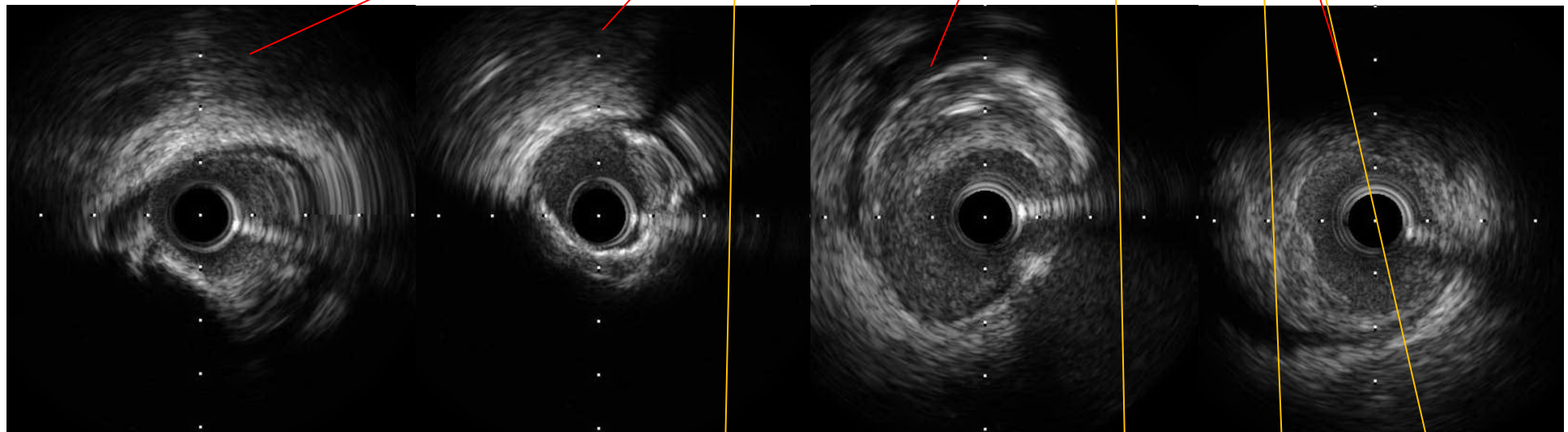
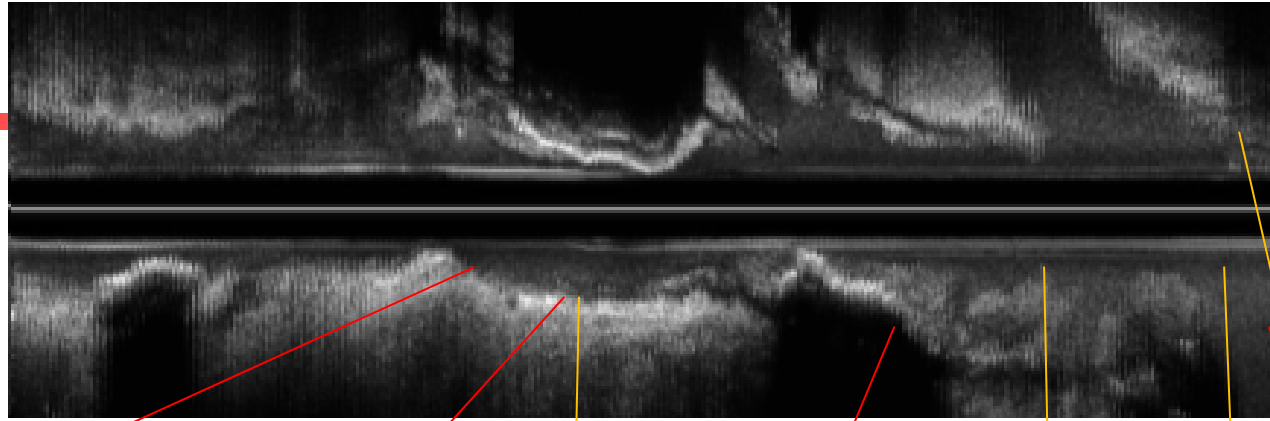


(1:55-0:05) X 0.5 mm/sec = 55 mm



LCX

Diagonal
Br.



Minimal Lumen Area (mm²) 2.36

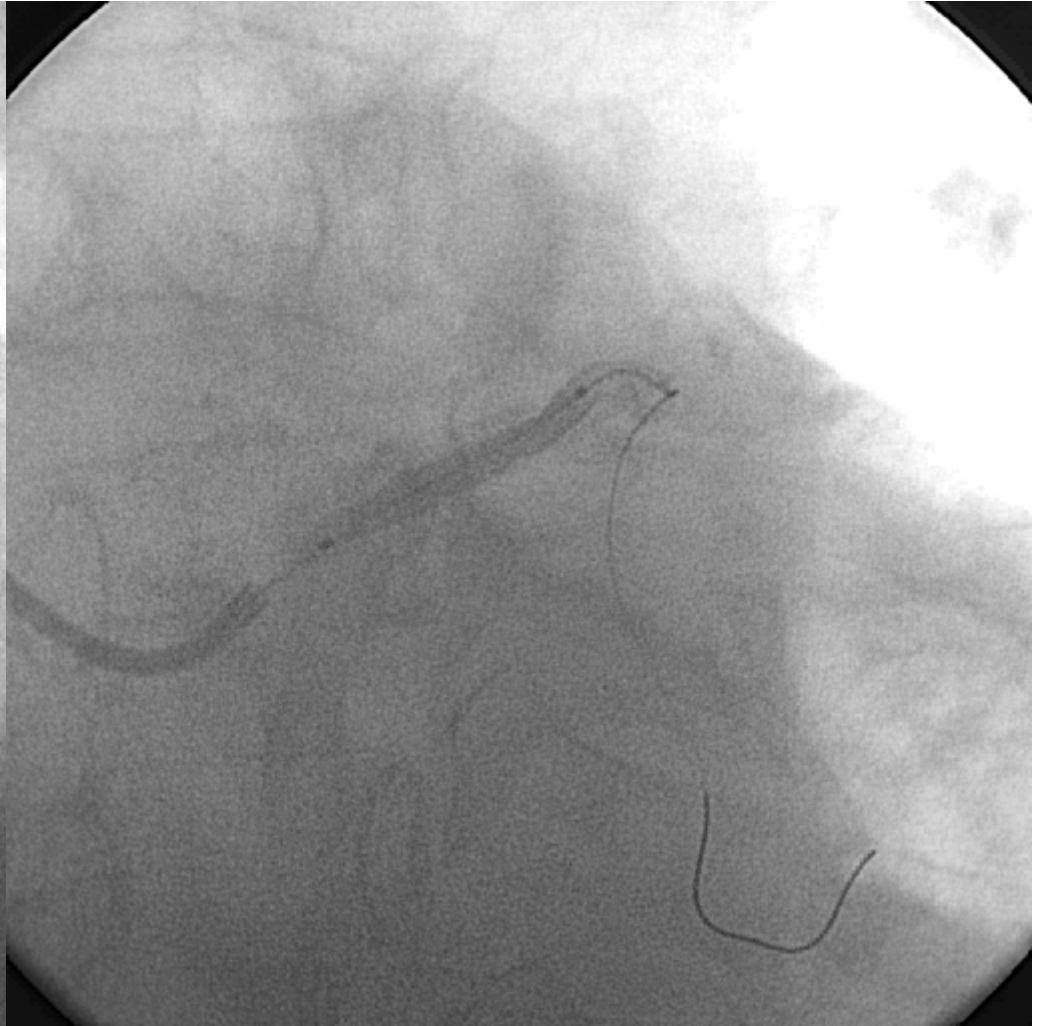
4.28

9.96

3.81

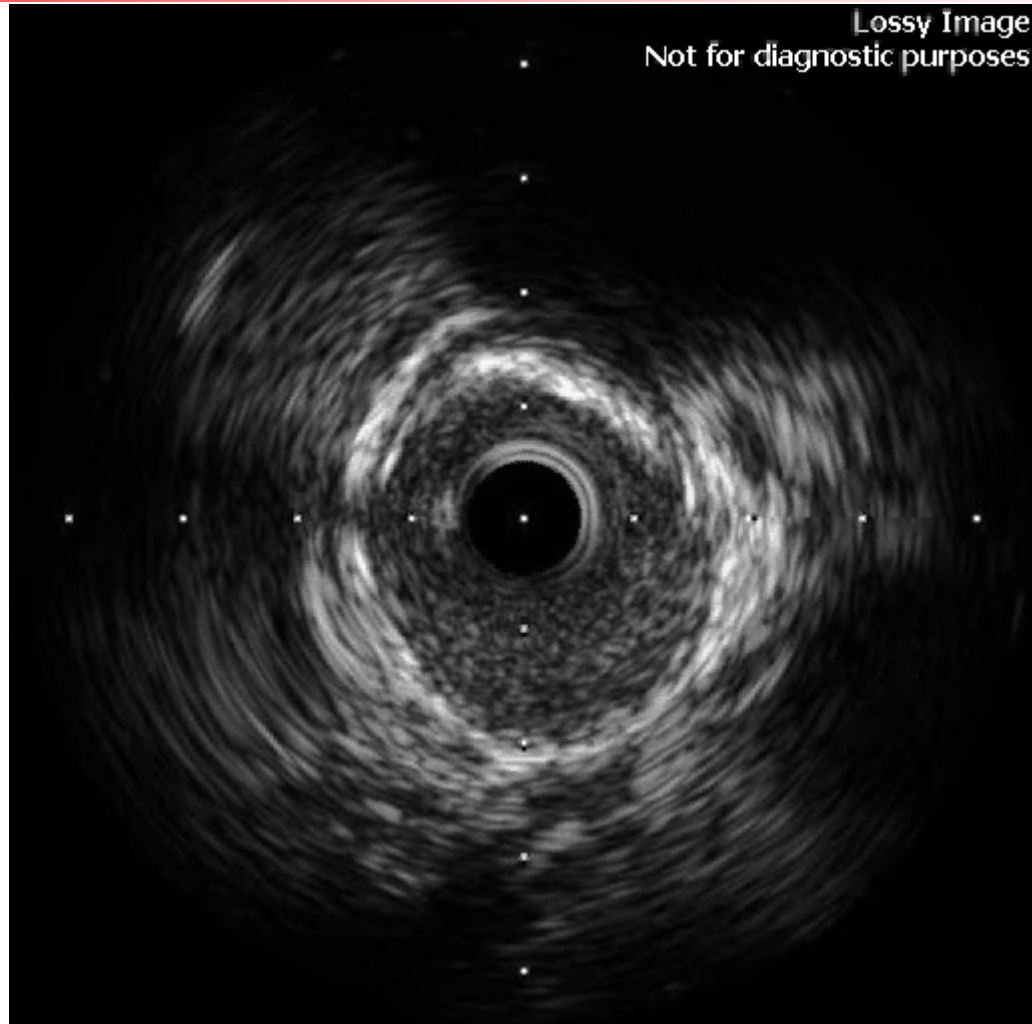


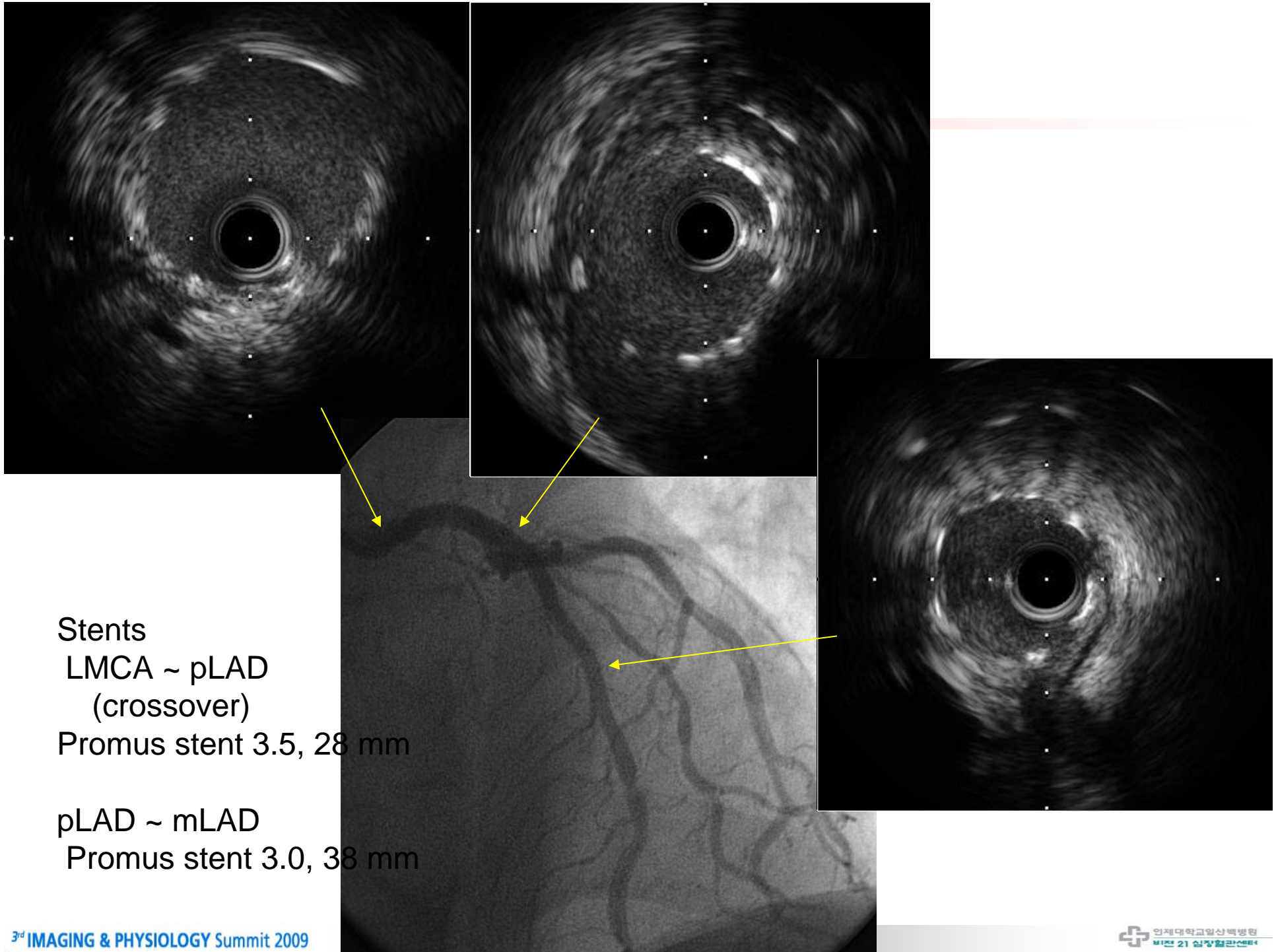
Promus stent 3.0, 38 mm



Promus stent 3.5, 28 mm

IVUS, post-PCI

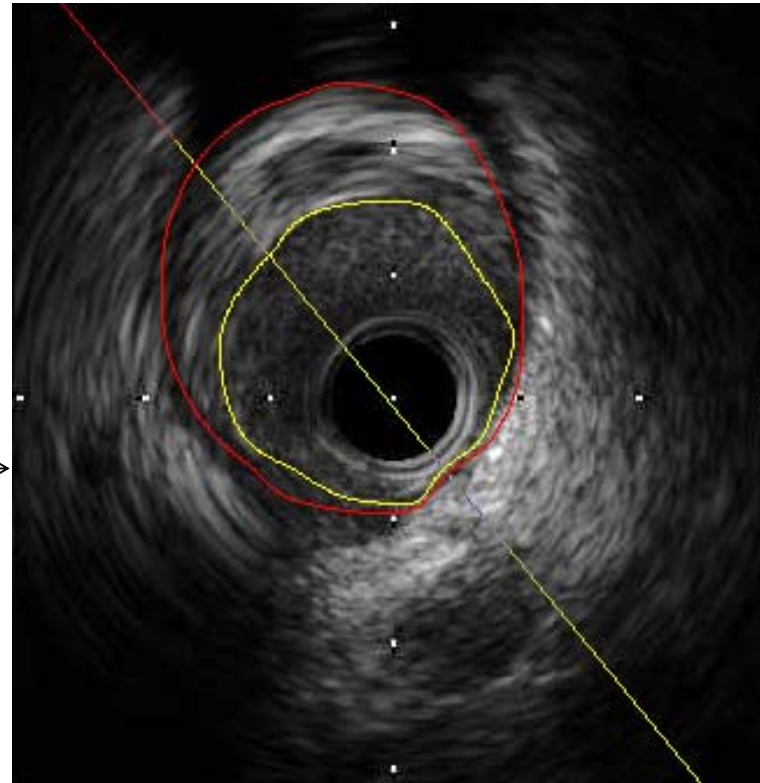




Stents
LMCA ~ pLAD
(crossover)
Promus stent 3.5, 28 mm

pLAD ~ mLAD
Promus stent 3.0, 38 mm

IVUS for Ambiguous mid LAD lesion



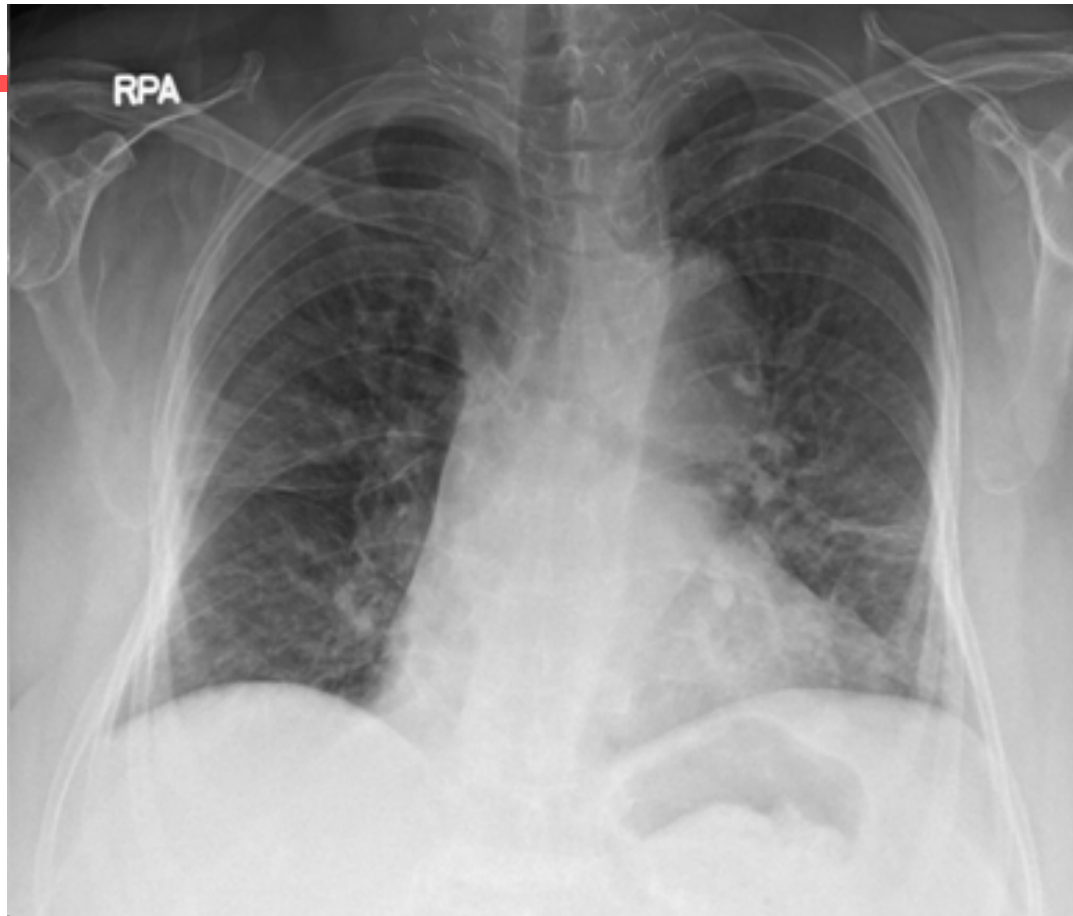
Measurements On Current Frame

	Area (mm ²)	Diameter (mm)			
		Mean	Min	Max	Min/Max
Lumen	3.92	2.24	2.04	2.39	0.85
Vessel					

Case 2

#0185561

- F/74
- NSTEMI
 - Dyspnea aggravated since 20 days ago
- Risk factor
 - Hypertension
 - Diabetes

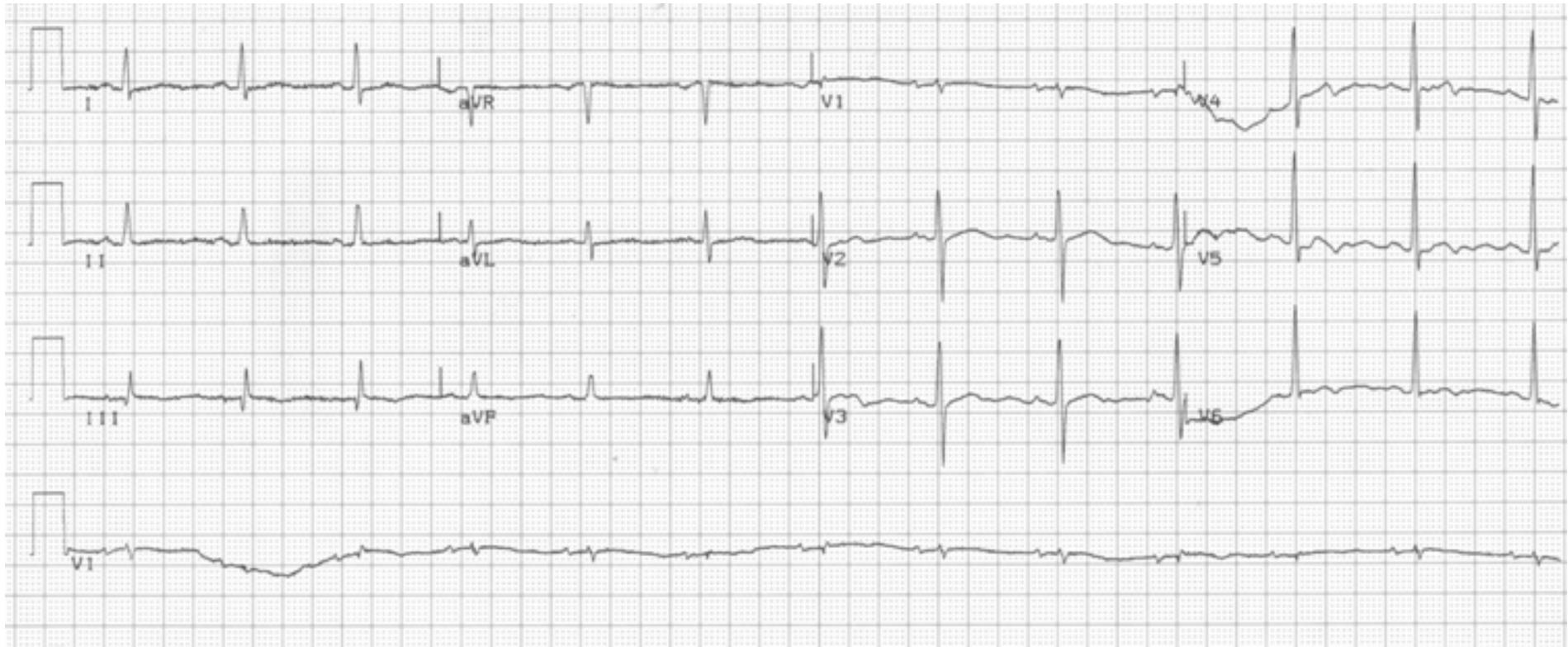


Echocardiography

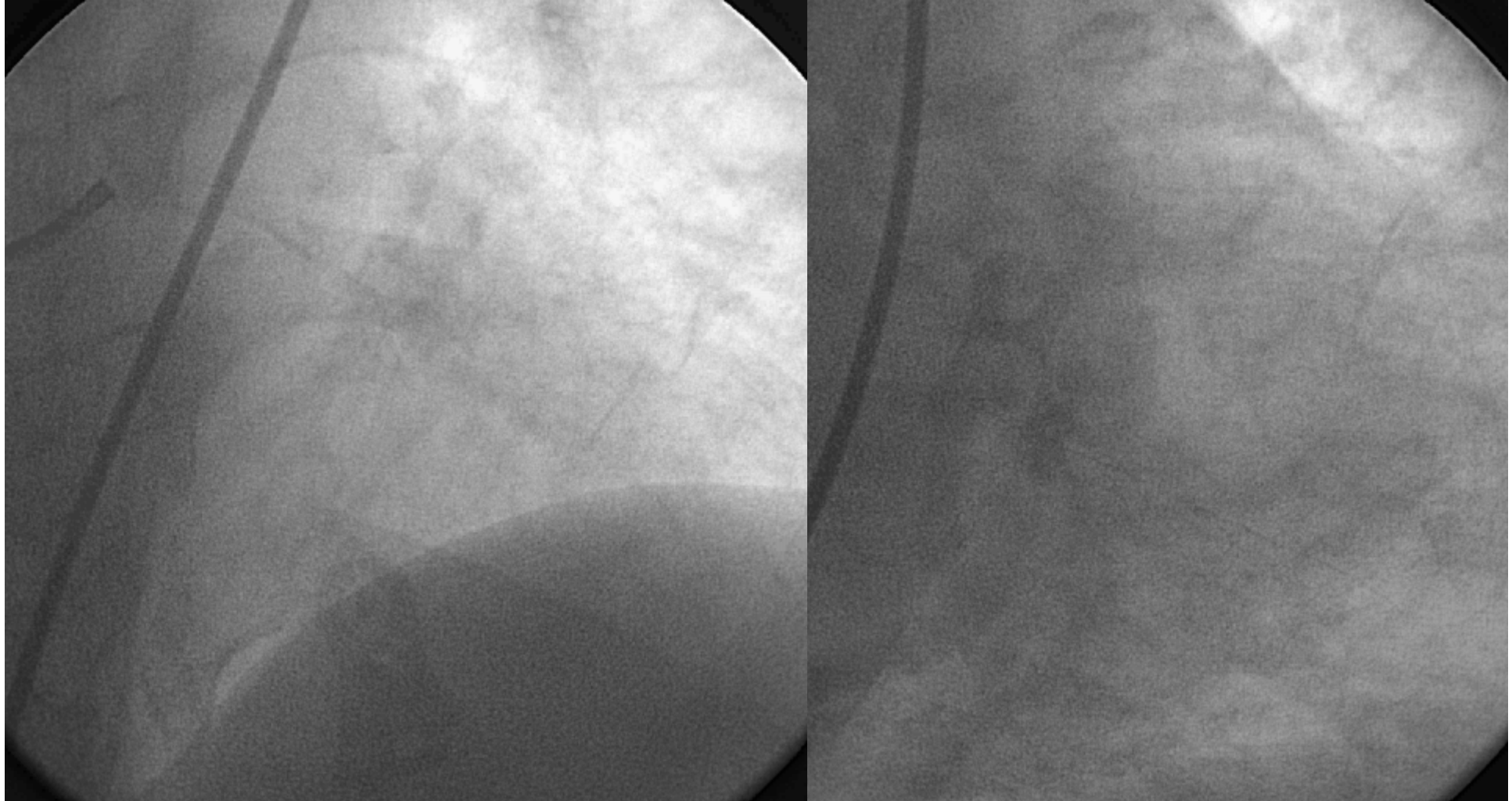
Normal LV cavity size and normal LV systolic function, EF=72%

Increased IVS & LVPW thickness

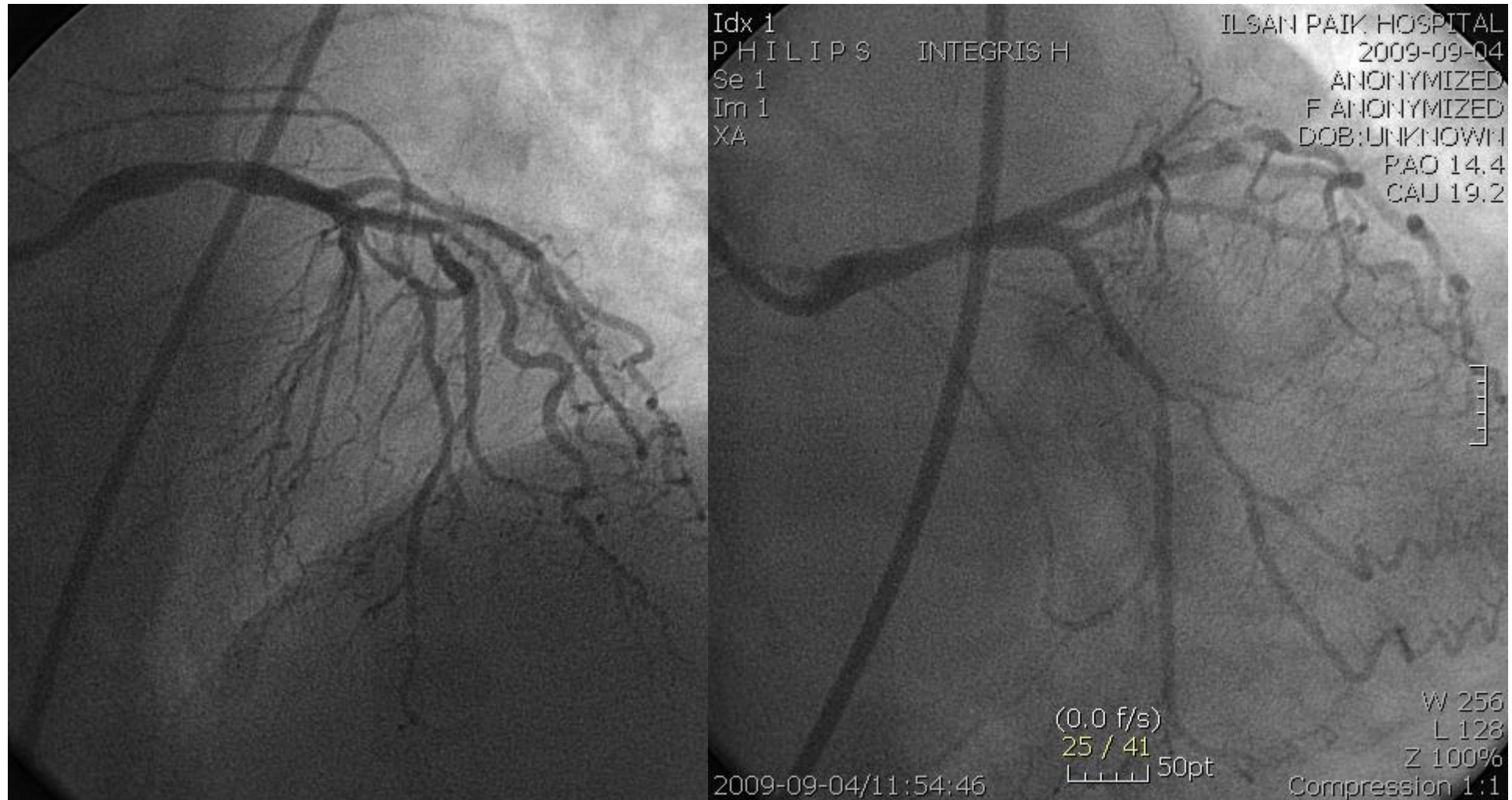
Thickened & calcified AoV (Vmax: 1.82m/s)



CAG



CAG Summary



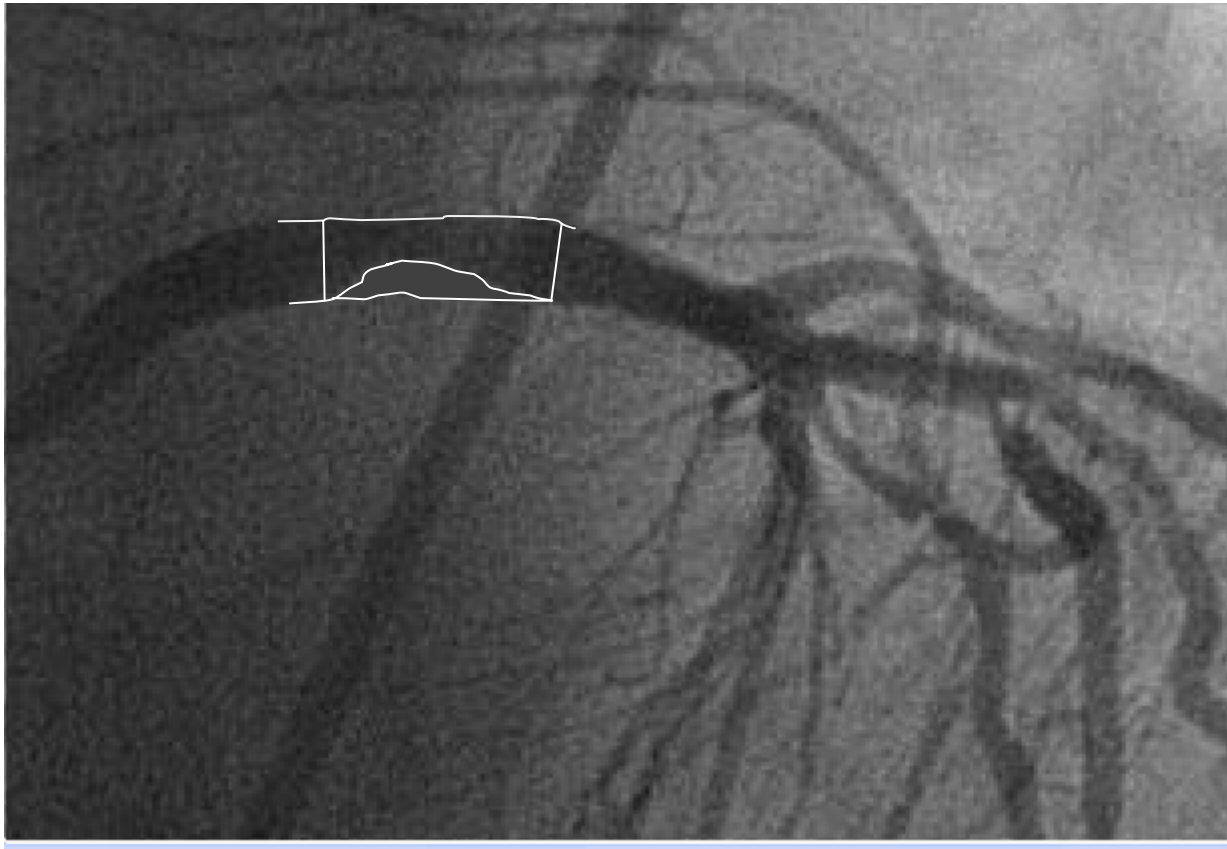
Severe Stenosis at mid-LAD and OM
Insignificant Lesion at mid-shat of LMCA



Endeavor Resolute 2.5, 24 mm

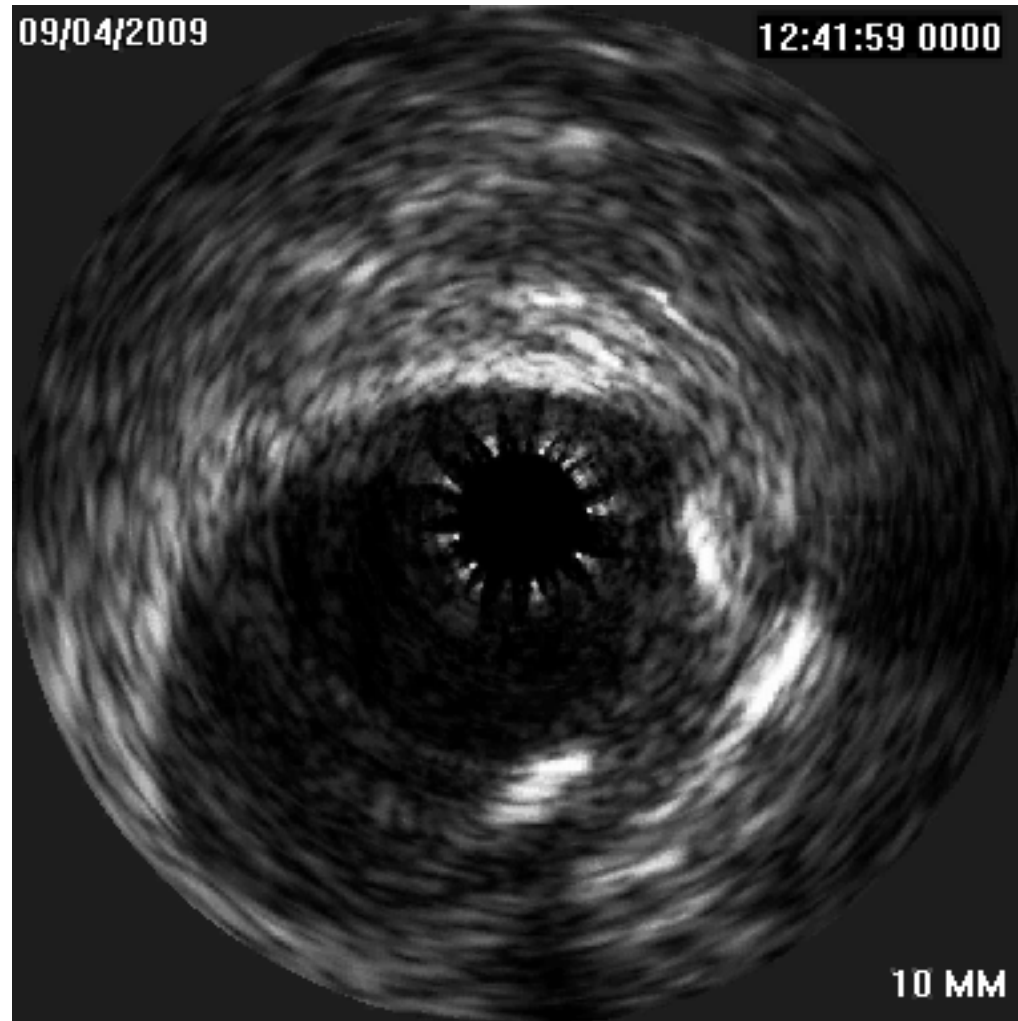


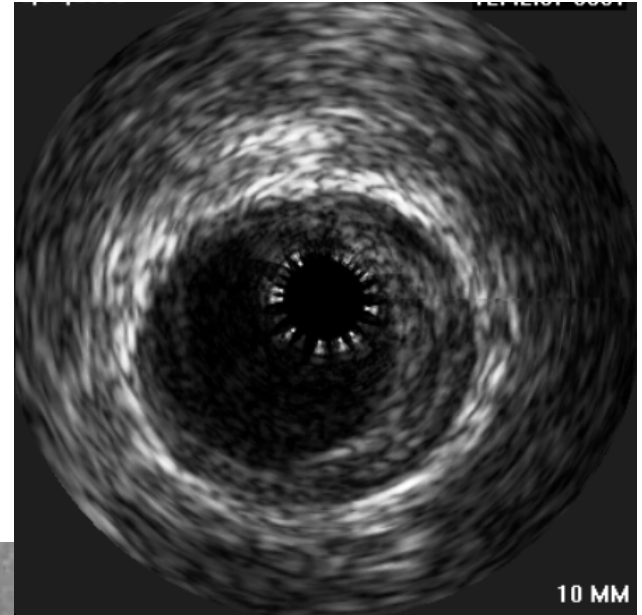
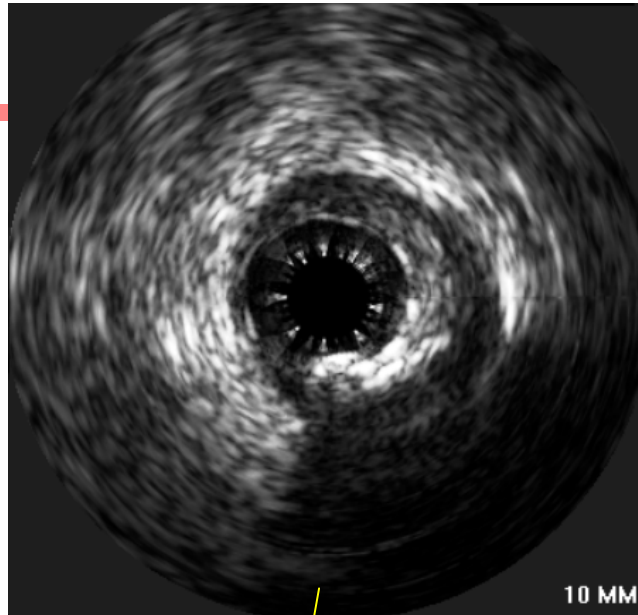
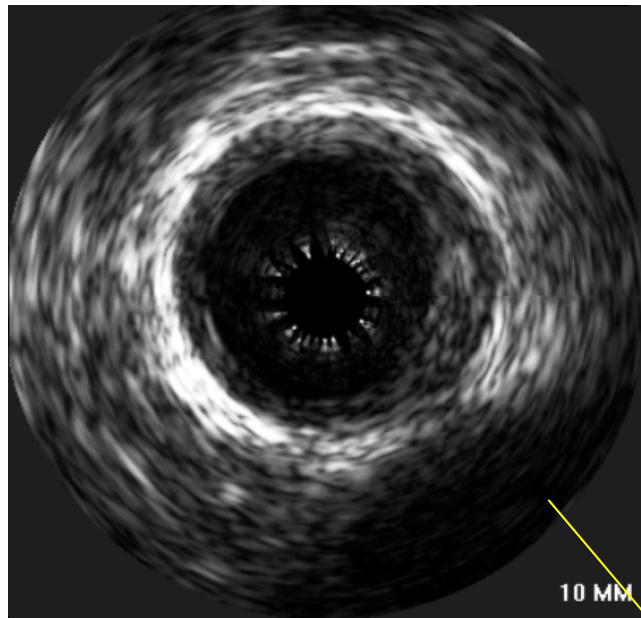
Endeavor Resolute 2.5, 24 mm



43% diameter stenosis by QCA

IVUS, pre-PCI



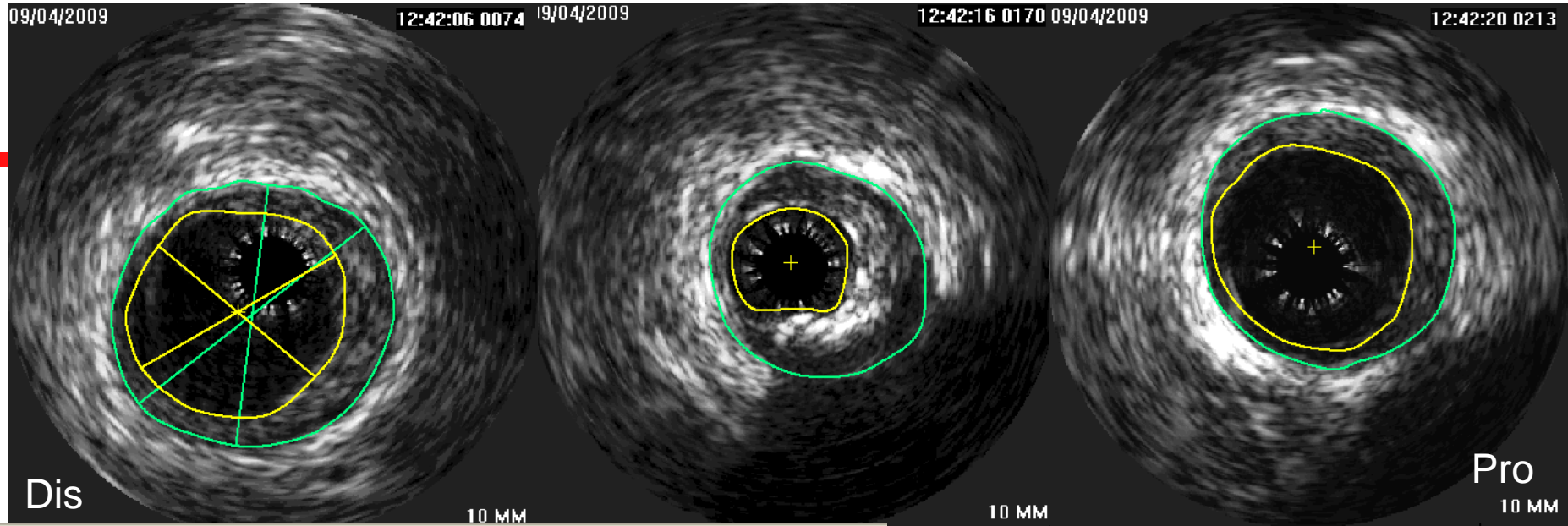


09/04/2009

12:42:06 0074 19/04/2009

12:42:16 0170 09/04/2009

12:42:20 0213

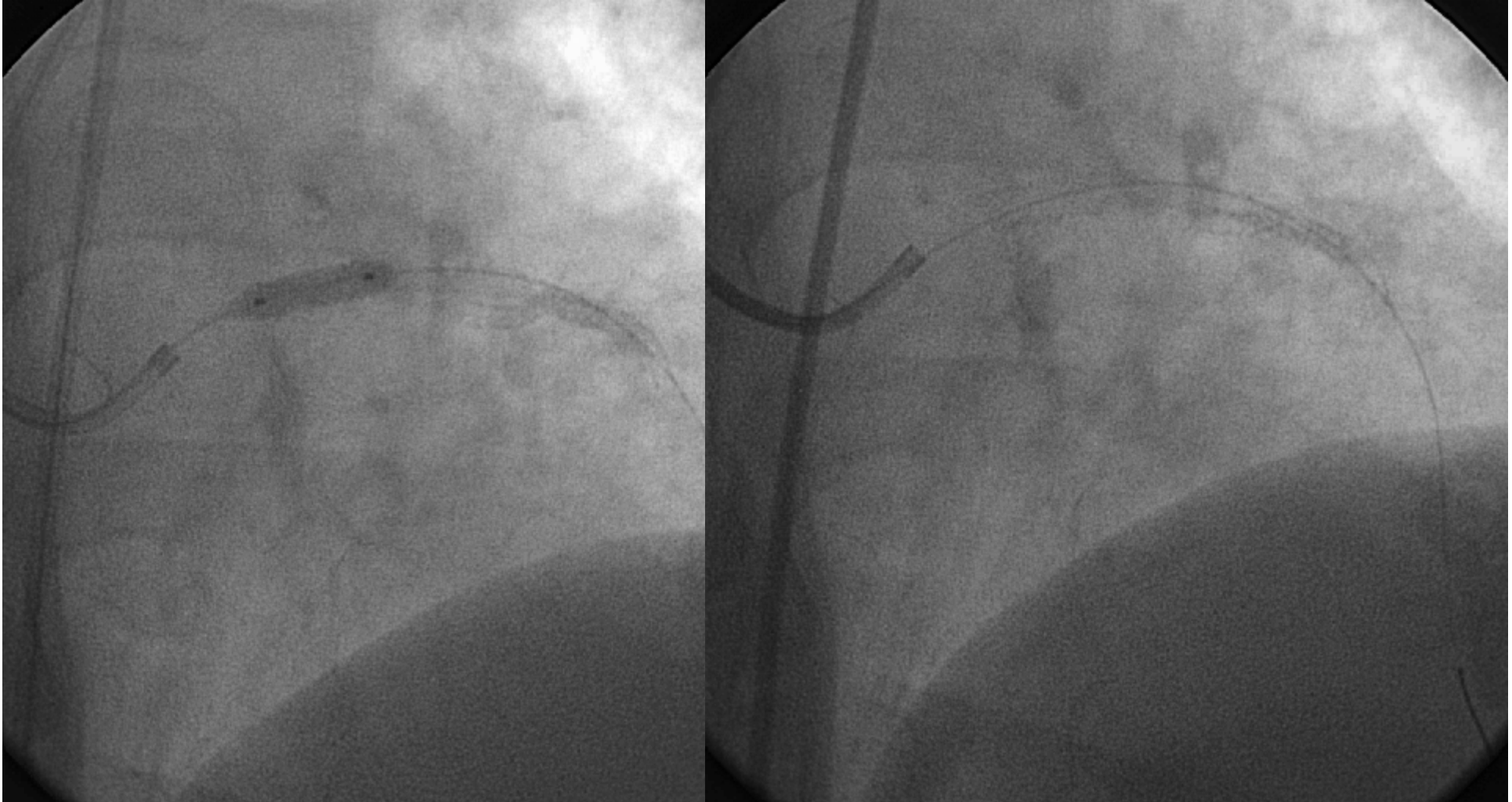


	Area(mm ²)	Diameter(mm)			
		Min	Max	Average	Ratio
Vessel	20.49	4.89	5.37	5.11	0.91
Lumen	12.44	3.80	4.20	3.98	0.90
Stent					
Plaque	8.05				
Intimal Plaque Separation					

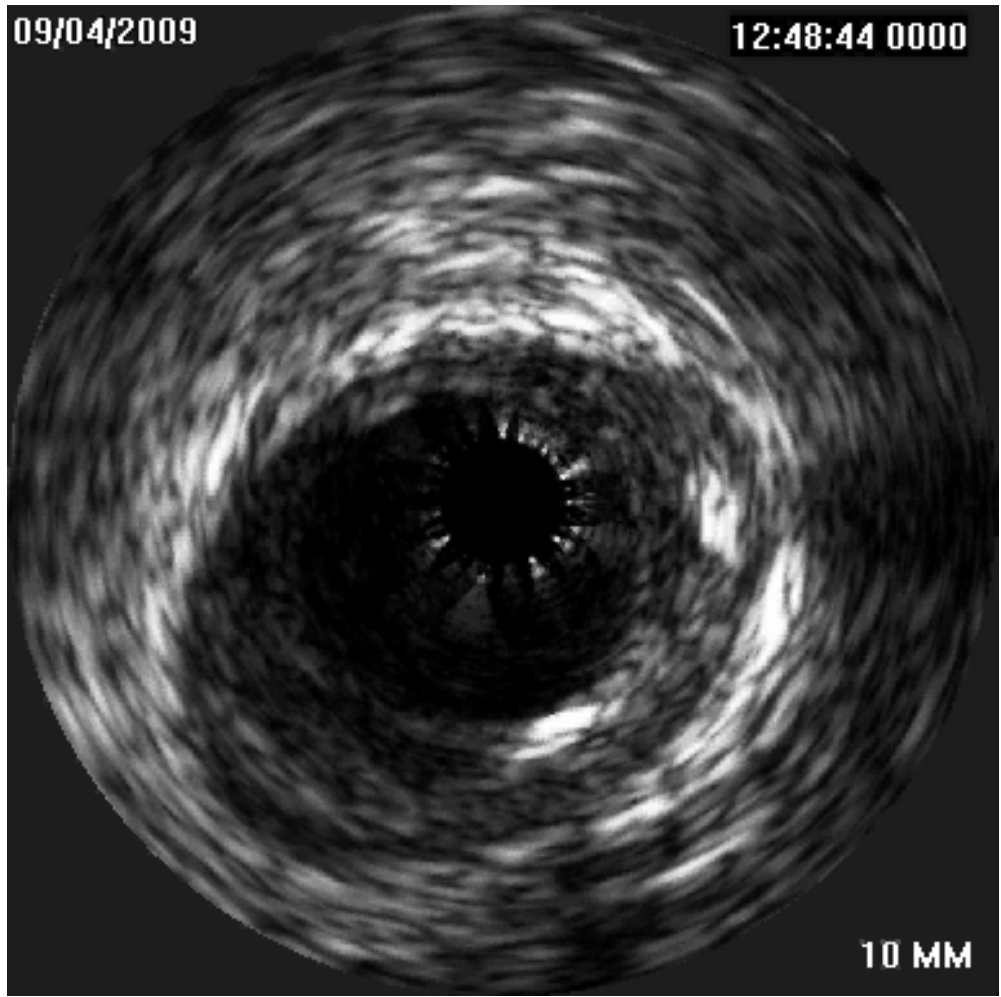
	Eccentricity	Diameter(mm)				
		Max	Average	Ratio		
Intimal Plaque Separation	0.27	0.93	0.56	0.30		
Vessel		12.84	3.84	4.34	4.04	0.88
Lumen		3.45	1.87	2.23	2.09	0.84
Stent						
Plaque		9.39				
Intimal Plaque Separation						

	Area(mm ²)	Diameter(mm)				Eccentricity
		Min	Max	Average	Ratio	
Vessel	18.46	4.66	5.07	4.85	0.92	
Lumen	11.62	3.66	4.08	3.84	0.90	
Stent						
Plaque	6.83					
Intimal Plaque Separation		0.19	0.83	0.50	0.23	

Minimal Lumen CSA : 3.45 mm²
 Mean Ref EEM : 19.475 mm²
 Min Lumen EEM : 12.84 mm²
 Remodeling index : 0.65

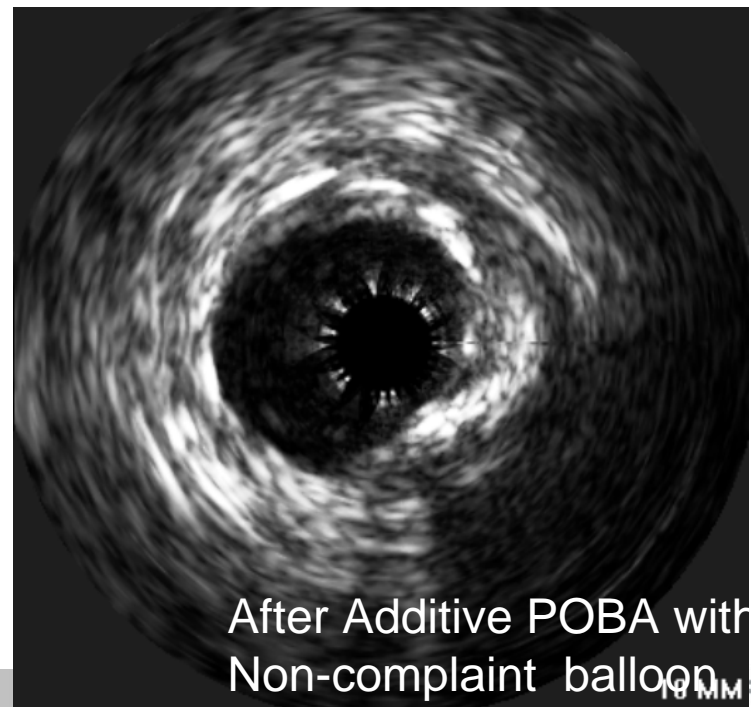
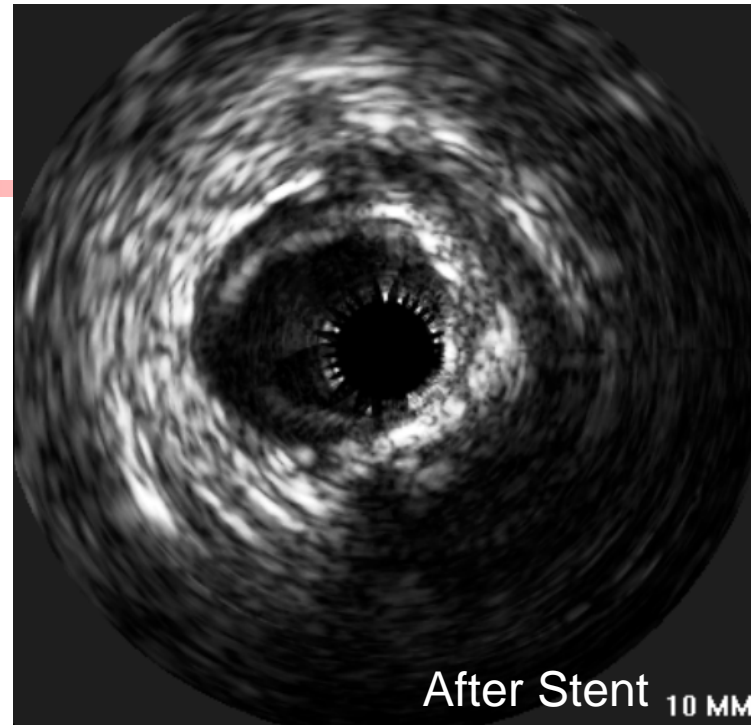


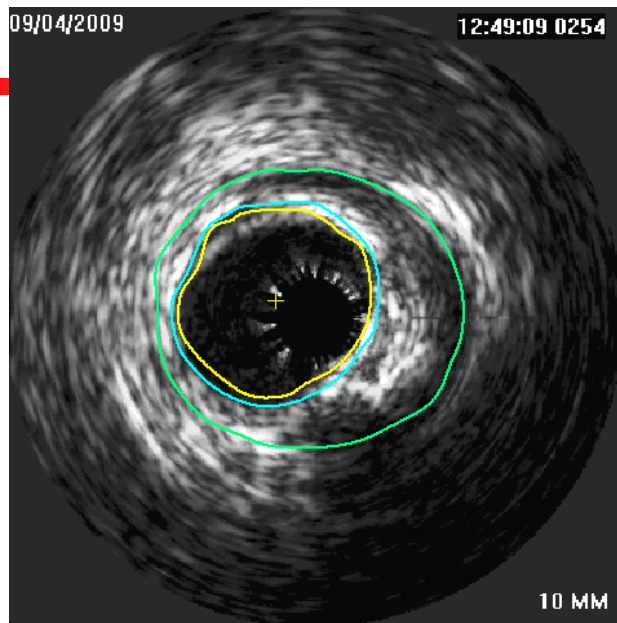
Promus 3.5, 12 mm



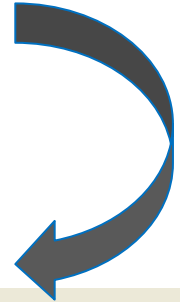


Promus 3.5, 12 mm

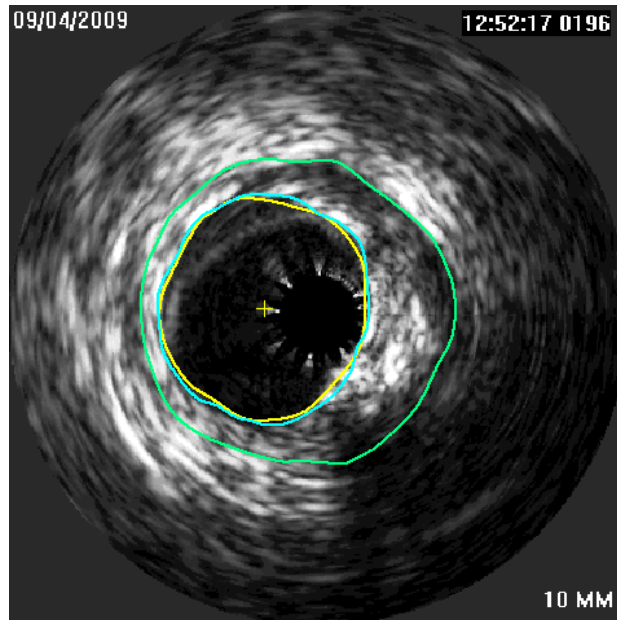




	Area(mm ²)	Diameter(mm)			Ratio
		Min	Max	Average	
Vessel	17.86	4.45	5.02	4.77	0.89
Lumen	7.19	2.83	3.19	3.02	0.88
Stent	8.51	3.07	3.46	3.29	0.89
Plaque	10.68				
Intimal Plaque Separation	1.33	0.33	1.55	0.87	Eccentricity 0.23



Additional POBA (non-compliant 4 , 8 mm)



	Area(mm ²)	Diameter(mm)			Ratio
		Min	Max	Average	
Vessel	19.34	4.79	5.11	4.96	0.94
Lumen	9.16	3.23	3.61	3.41	0.89
Stent	9.79	3.27	3.73	3.53	0.88
Plaque	10.18				
Intimal Plaque Separation	0.63	0.29	1.46	0.77	Eccentricity 0.20

Thank you for Attention



**Main Gate is Important
SeungRye Main Gate. Seoul**