

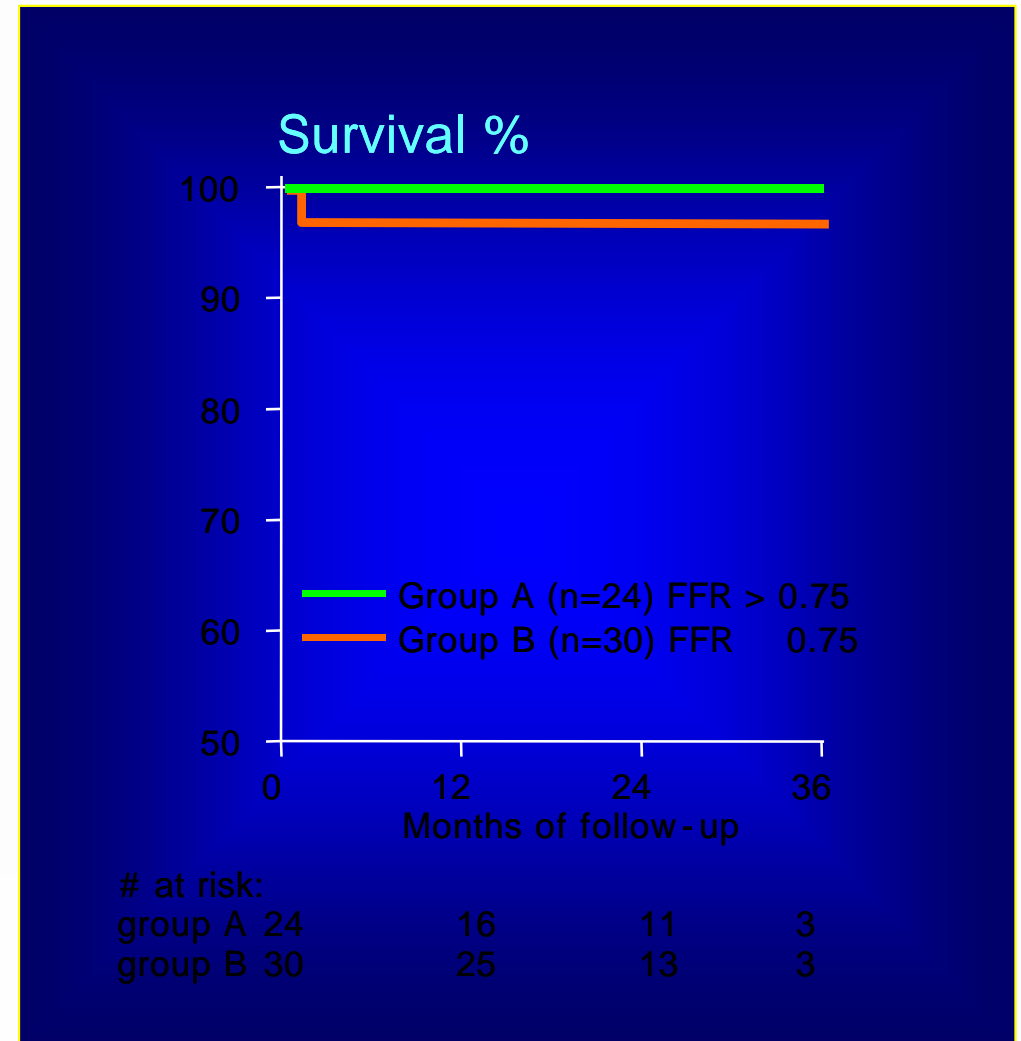
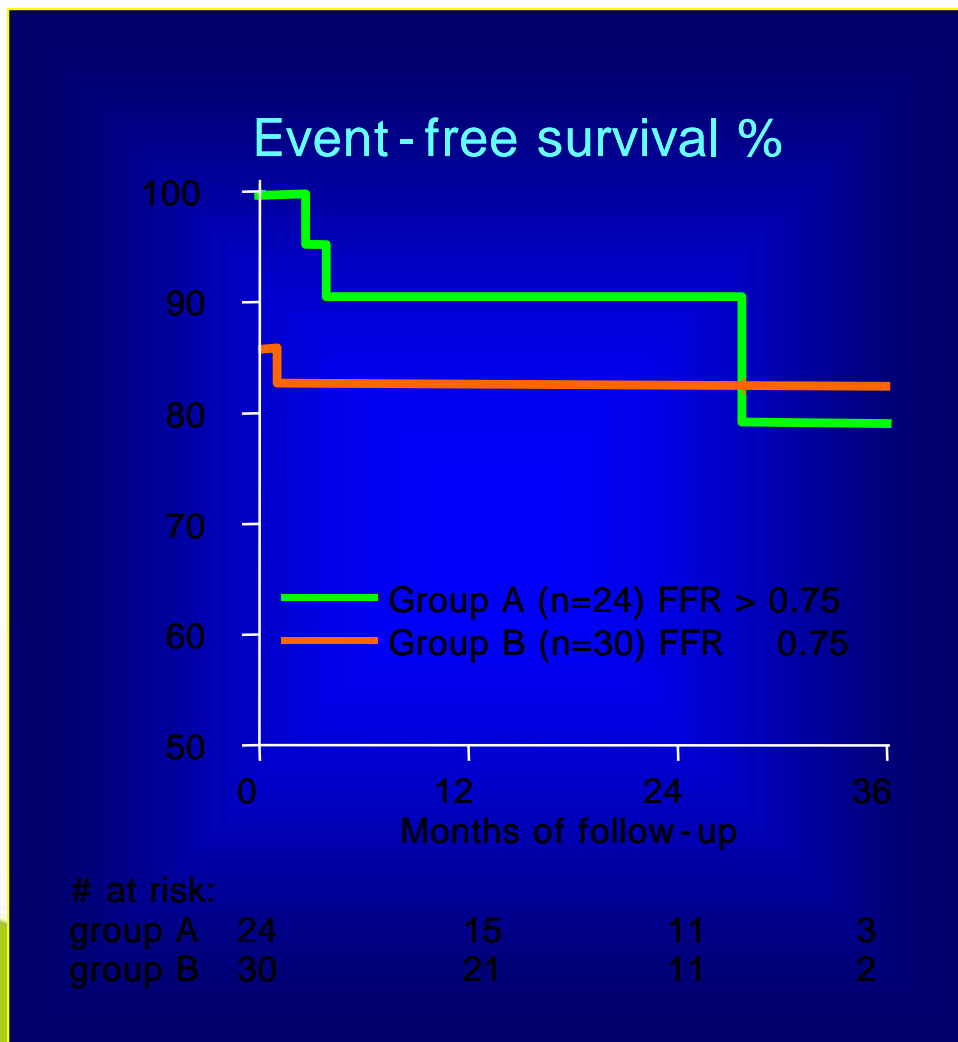
FFR Case of bifurcation & Left Main Lesion



KIM SU IK, RT

**The Catholic University of Korea,
Seoul St. Mary's Hospital, Seoul**

Clinical outcome of Intermediate Left main Stenosis



JW Bech et al Heart 2001

Is side branch intervention needed?

	Post - PCI	6 Mo Follow - up
Main branch	0.96 ± 0.04	0.96 ± 0.04
Jailed SB	0.87 ± 0.06	0.87 ± 0.09

No “FFR late loss” at 6 months

Bon-Kwon Koo, Eur Heart J 2007, in press

Is side branch intervention needed?

1. The angio cut - off value for (jailed) side branches is 75% DS
2. 70% of the SB are hemodynamically OK after stenting of the MB
3. No “ FFR late loss ” at 6 months whether or not kissing is performed...

Side Branches: much ado about nothing

Bon - Kwon Koo, Eur Heart J 2007, in press

1 Case Review

Patient

60/M

Chief Complaint

Chest discomfort – 1

Present illness

1. Hypertension

2. alcohol Hx 2-3 1 /

3. Smoking Hx current smocker 30PY/day

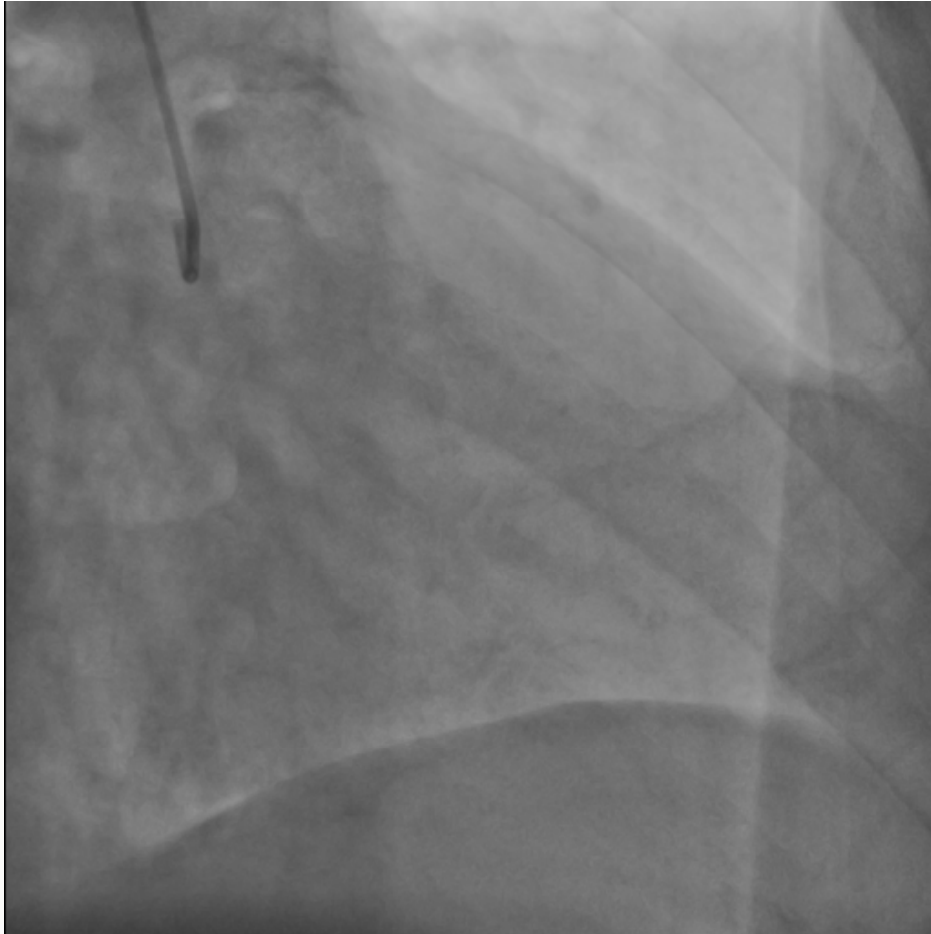
1 Case Review



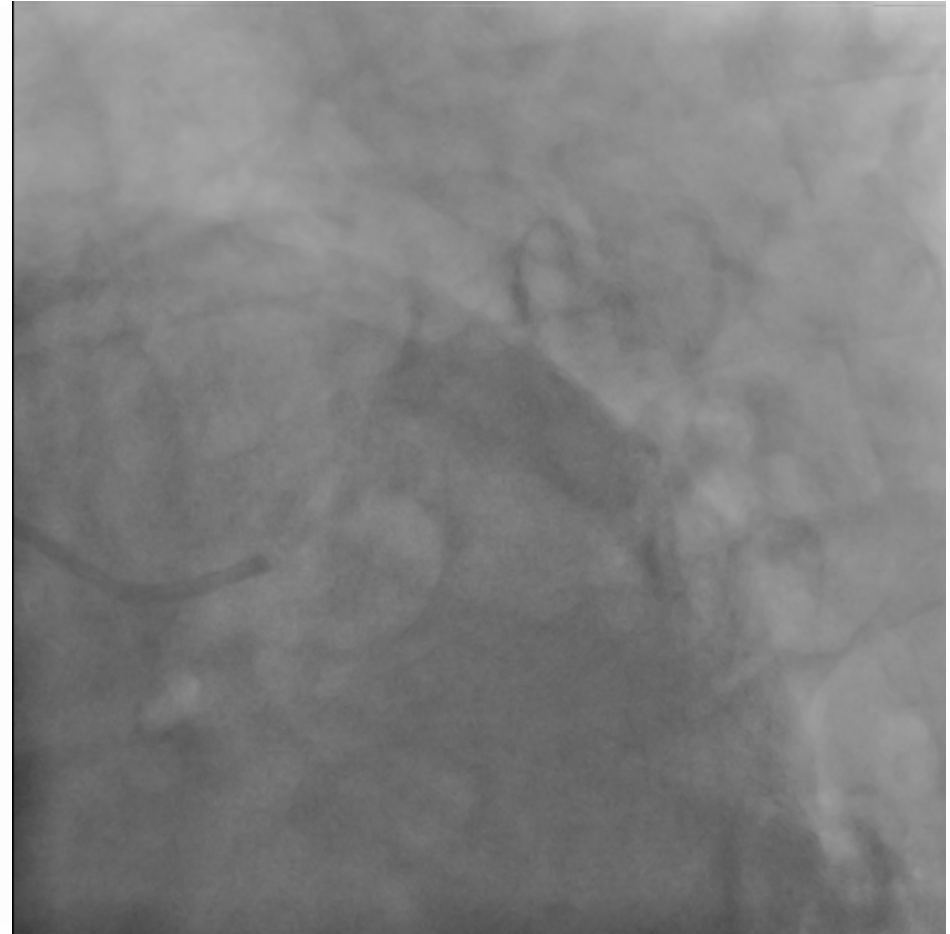
[CONCLUSION]

1. Intracoronary stent state at proximal RCA with suspicious in-stent low density, R/O in-stent intimal hyperplasia. DDx. beam-hardening artefact.
2. Multifocal, discrete, calcified or soft plaques along proximal & middle LAD with moderate stenosis.
3. Moderate to severe stenosis at middle LCX without calcified plaque.

1 Case Review

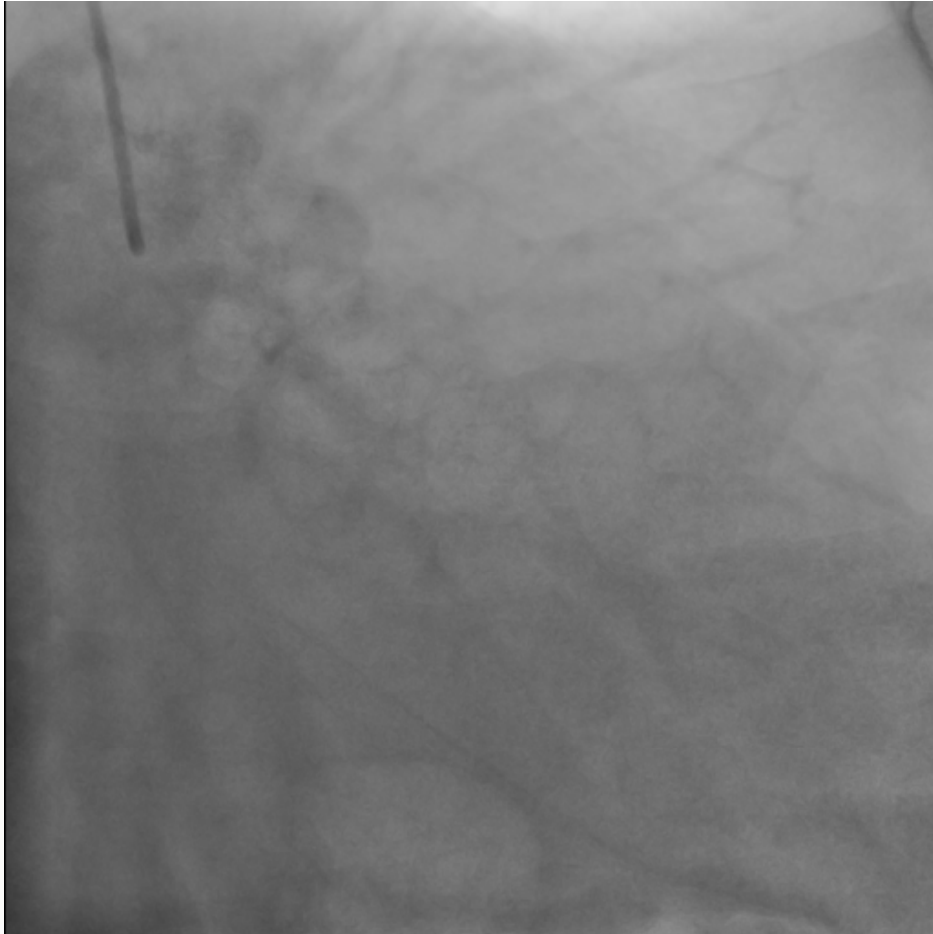


RAO Cranial



LAO Coudal (Spider view)

1 Case Review

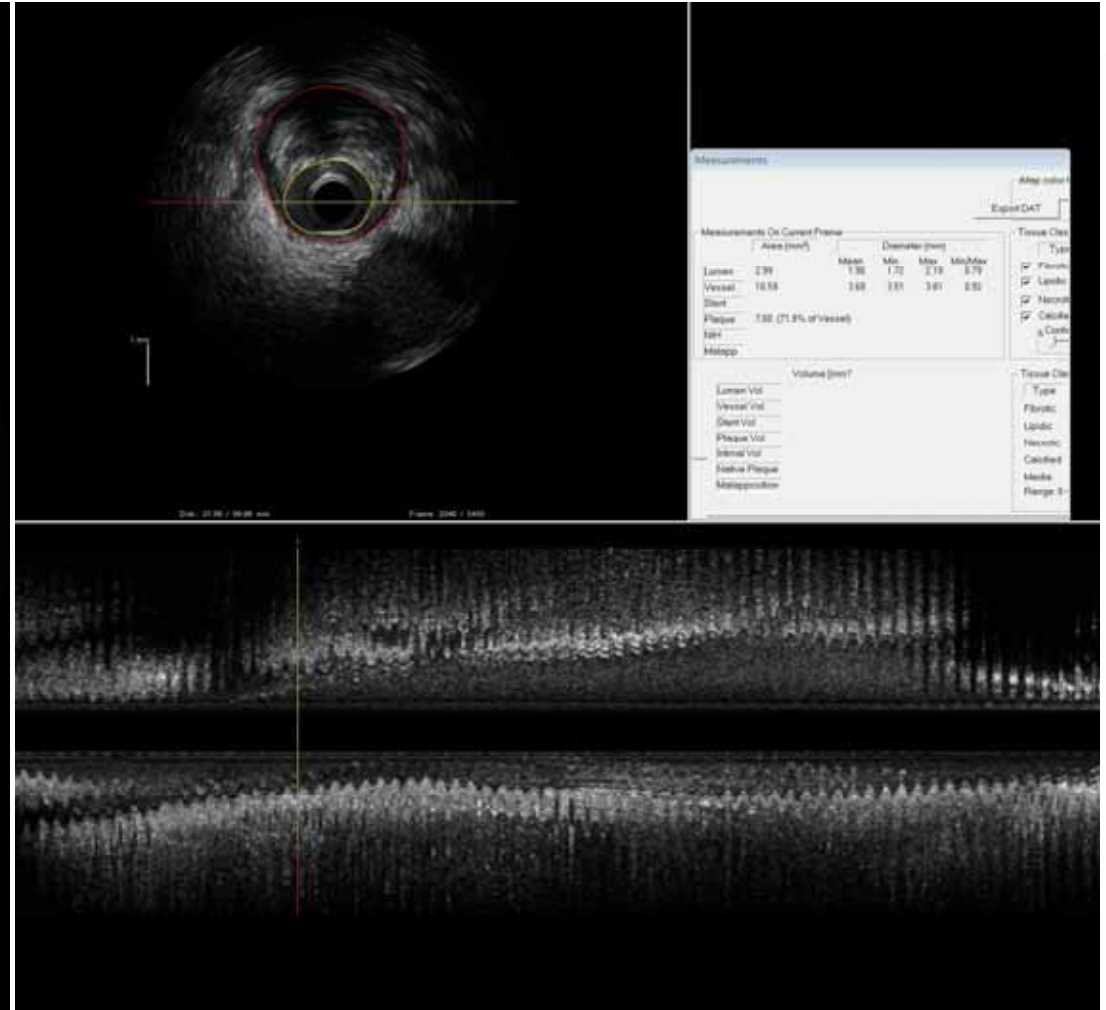
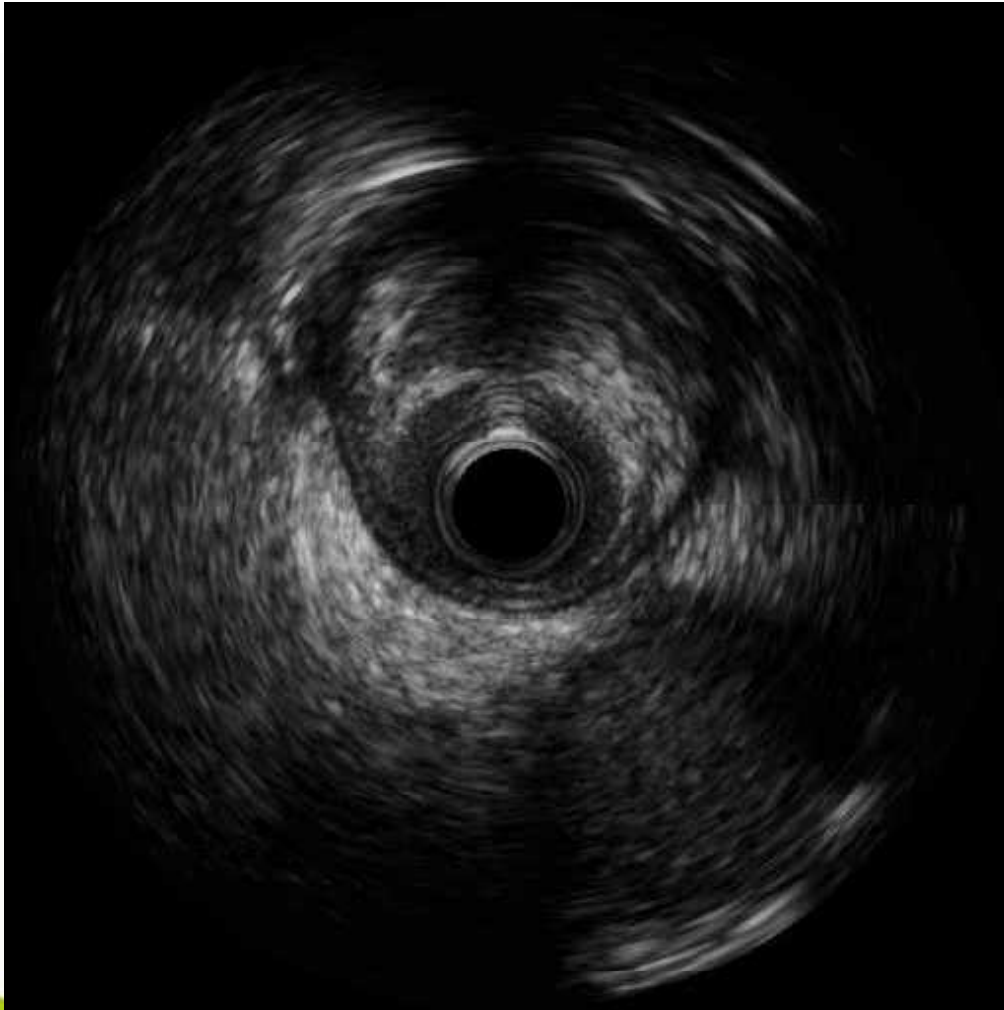


RAO Coudal



RCA LAO View

1 Case Review

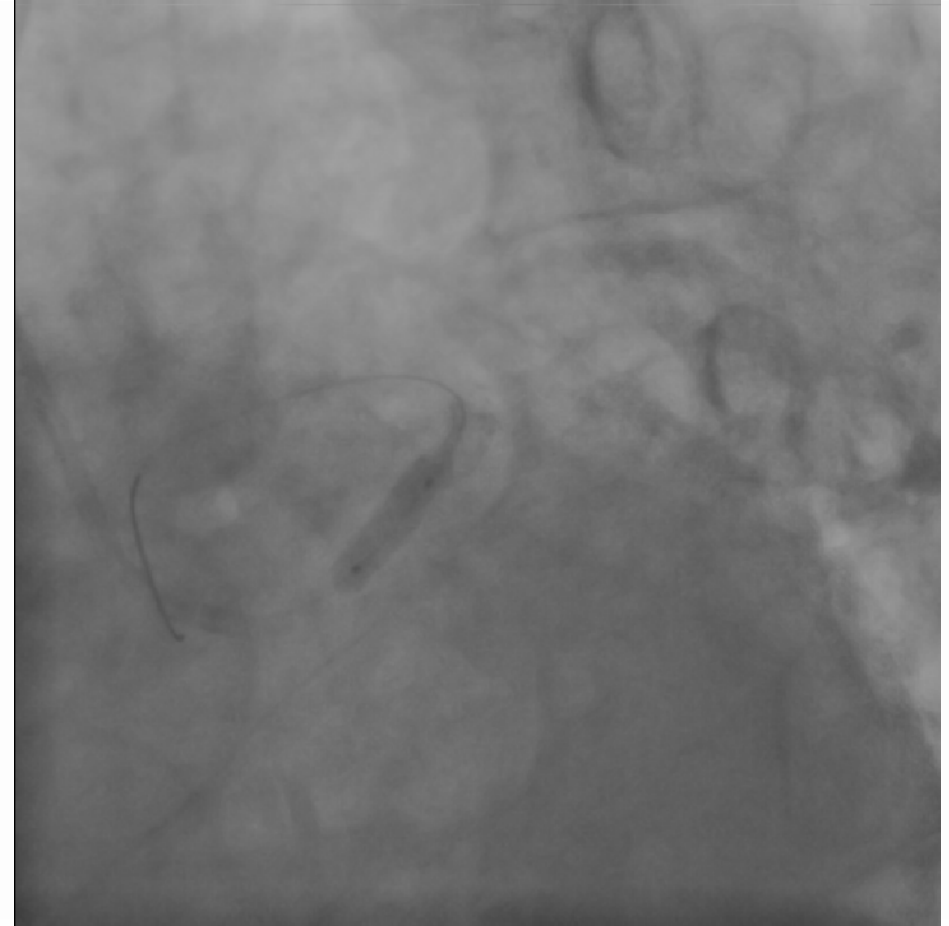
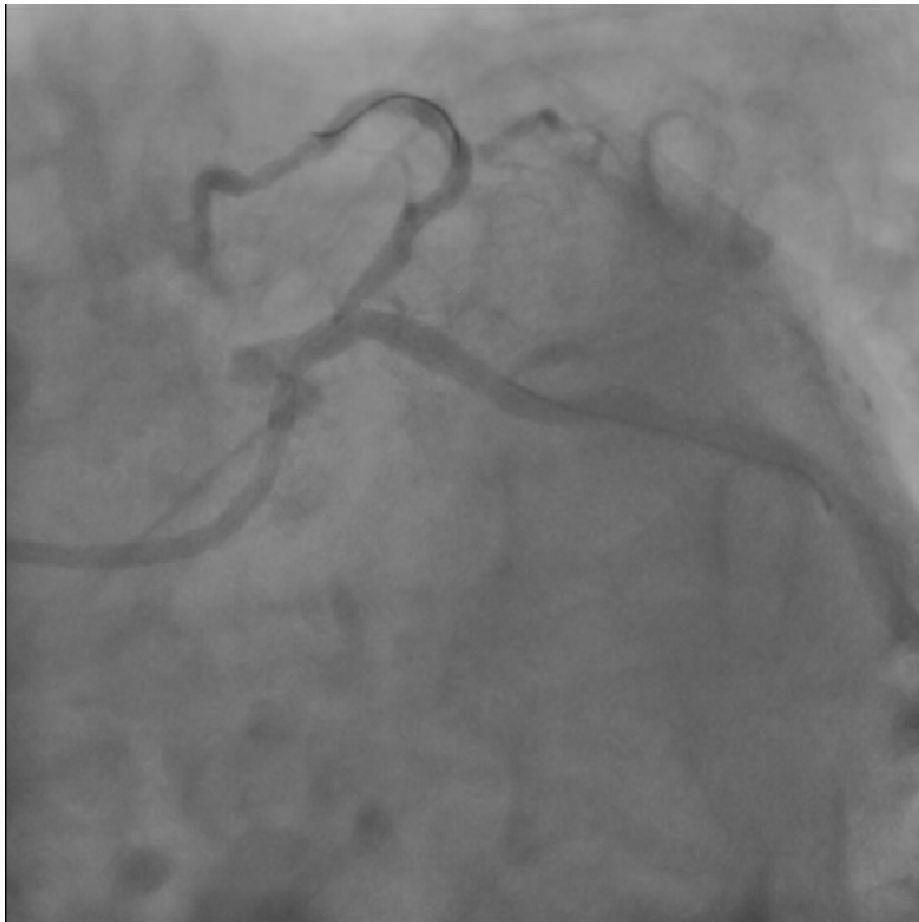


pLAD ; IVUS – MLA 2.99

,

Plaque burden - 71.8 %

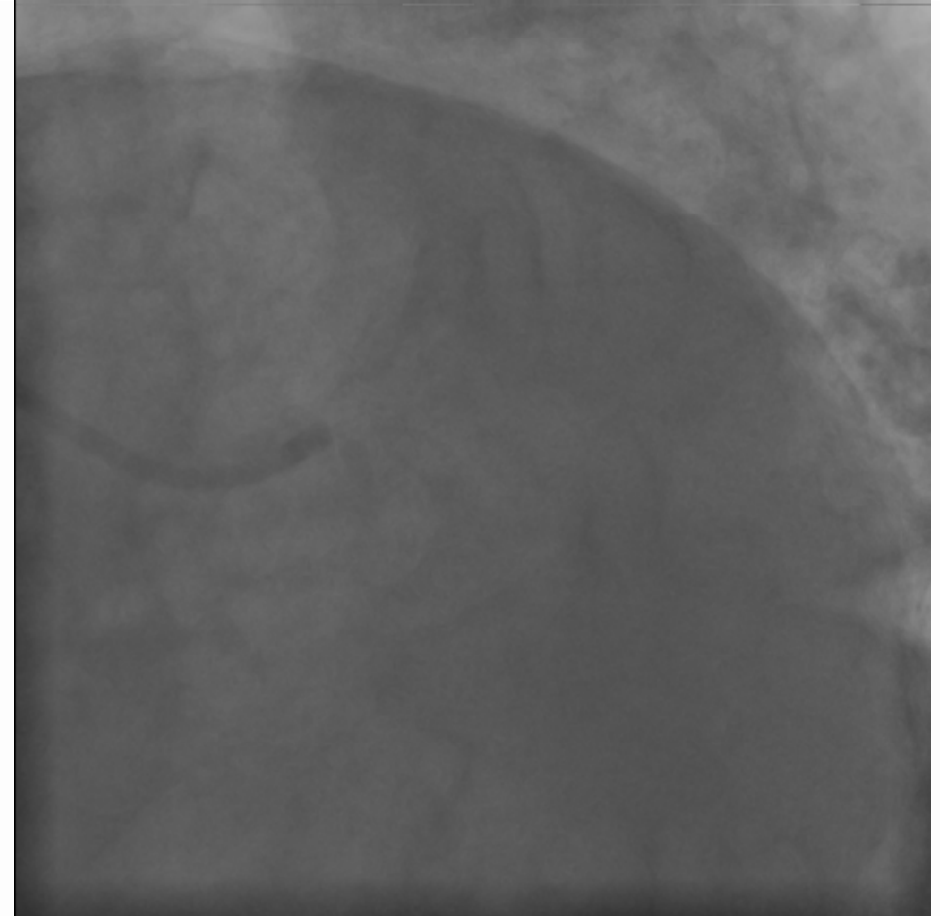
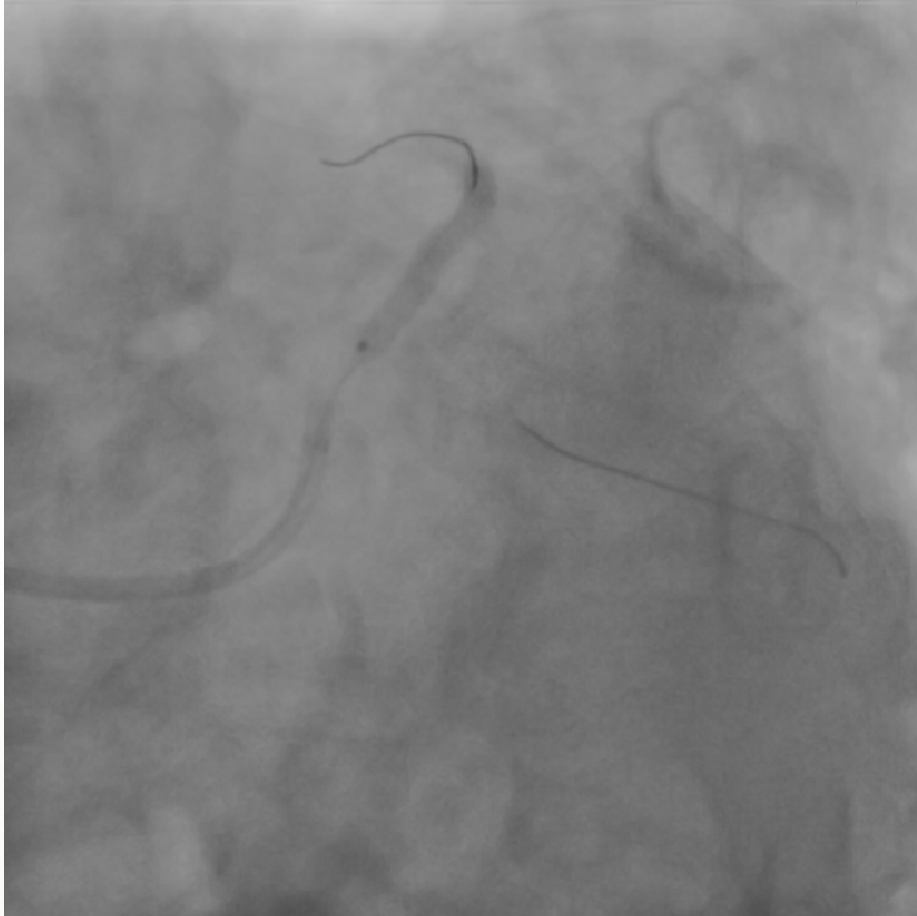
1 Case Review



LAO Coudal(Spider view)

LAD ostium 2.5mm - 15mm ballooning

1 Case Review

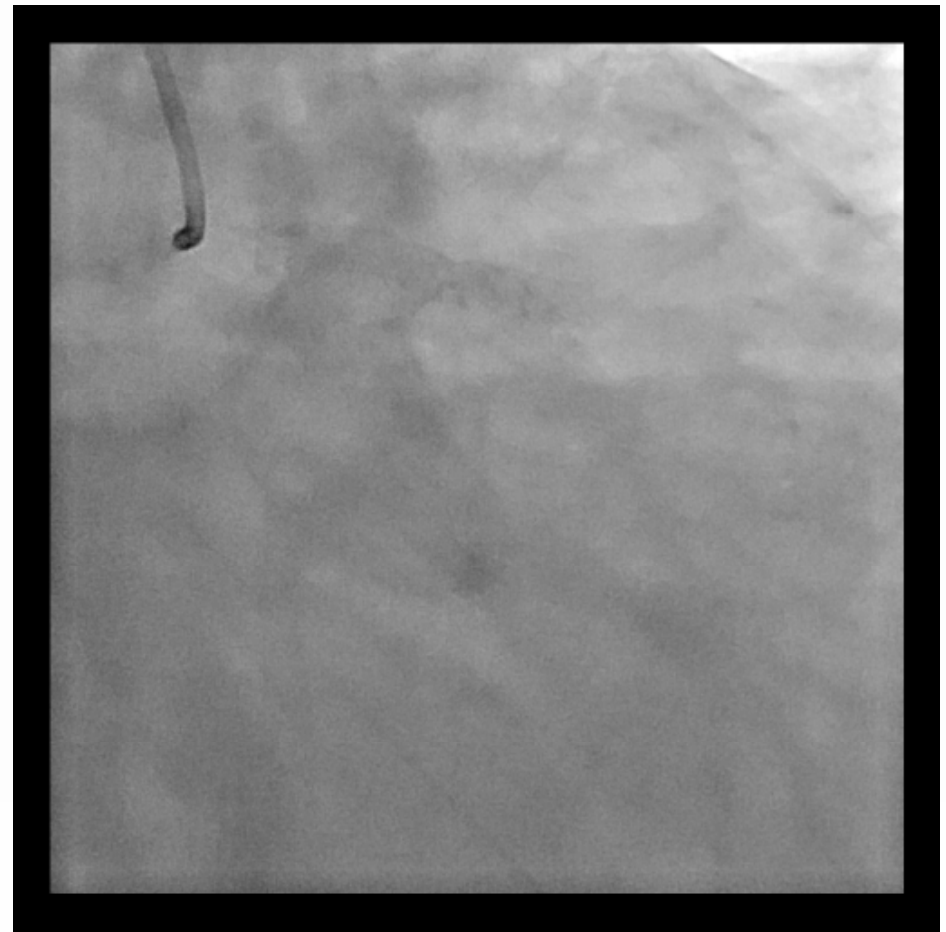
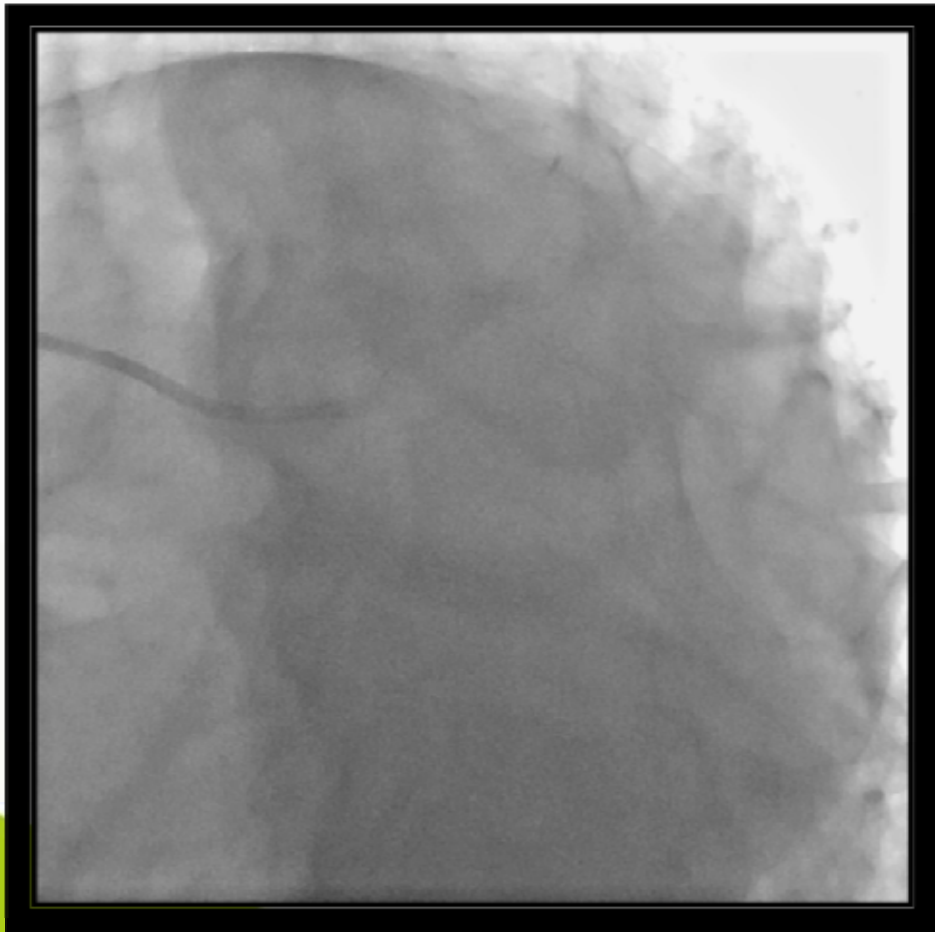


LAO Coudal(Spider view)

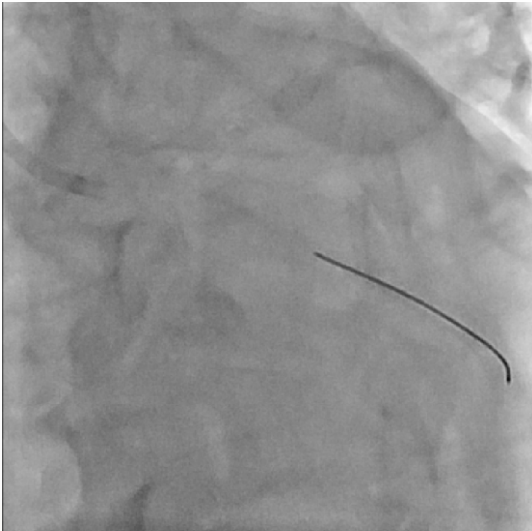
LAD ostium 3.0mm - 28mm xience Stent insertion

1 Case Review

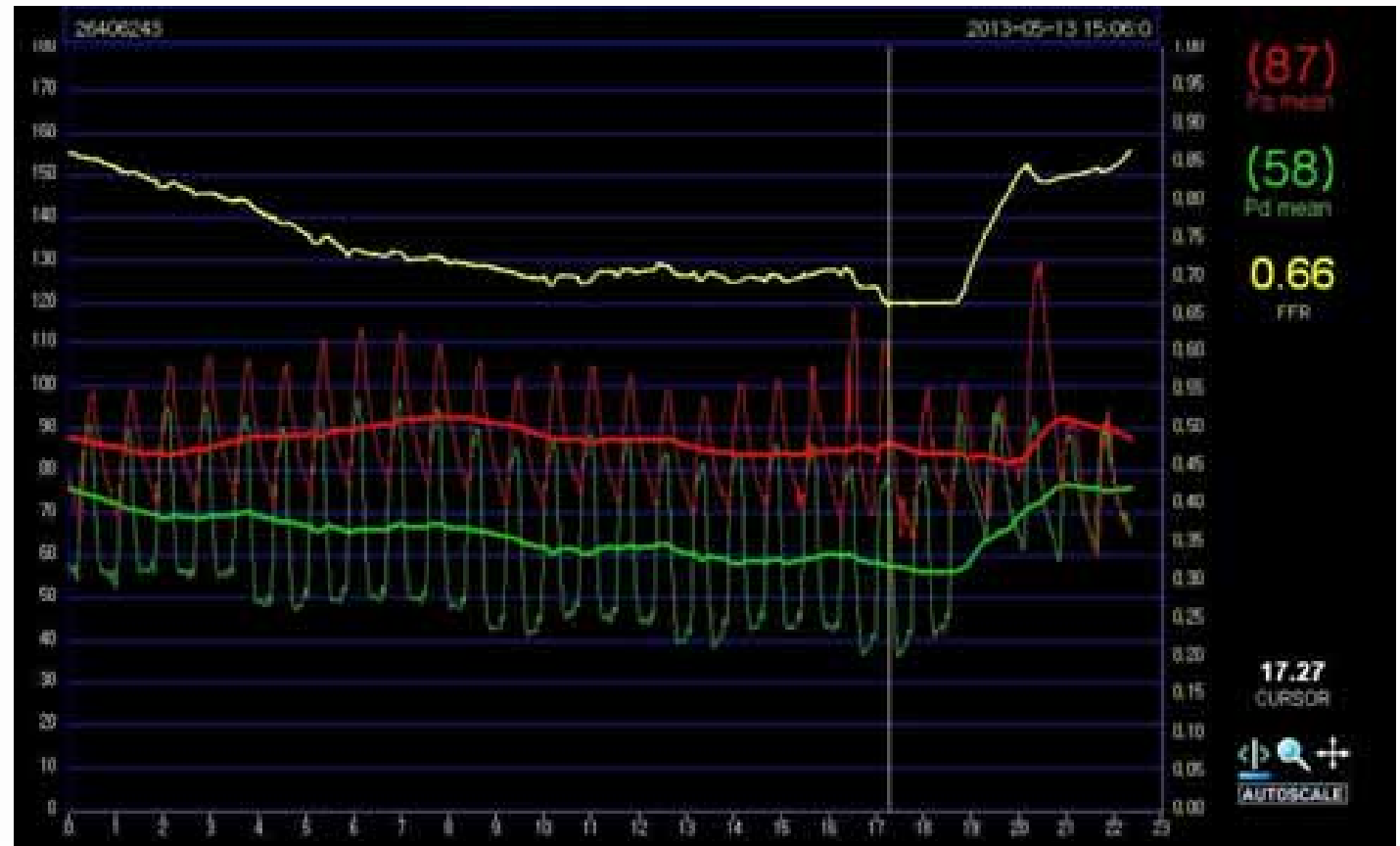
1 years follow up



1 Case Review



FFR wire in LCX

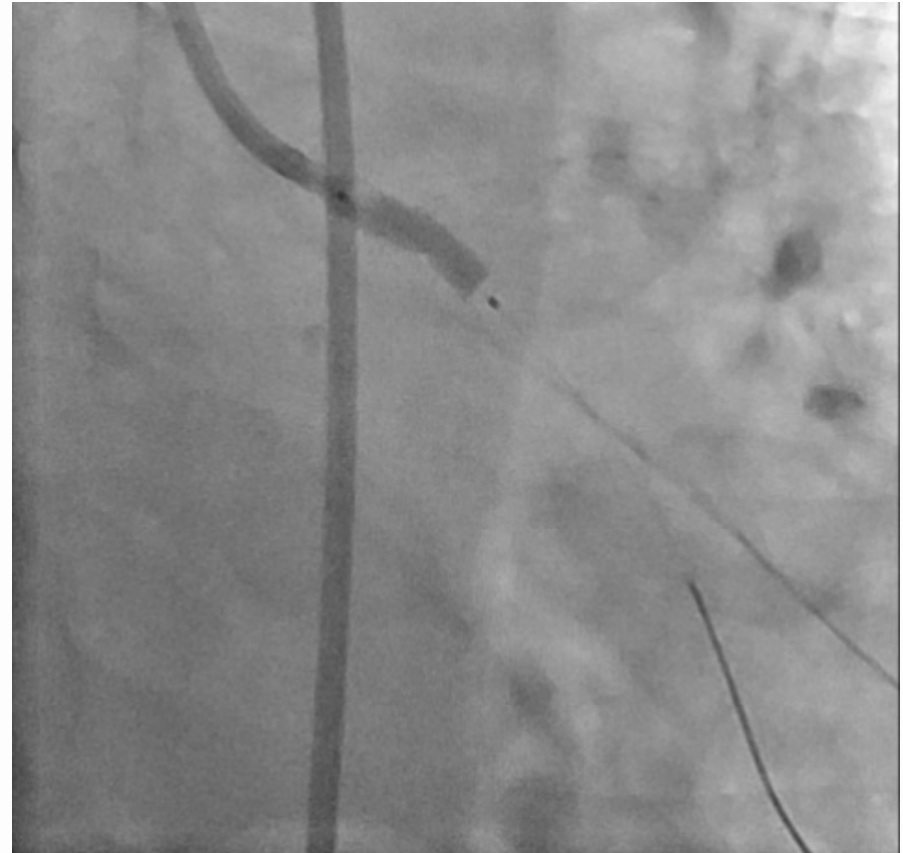


Proximal LCX FFR = 0.66

1 Case Review

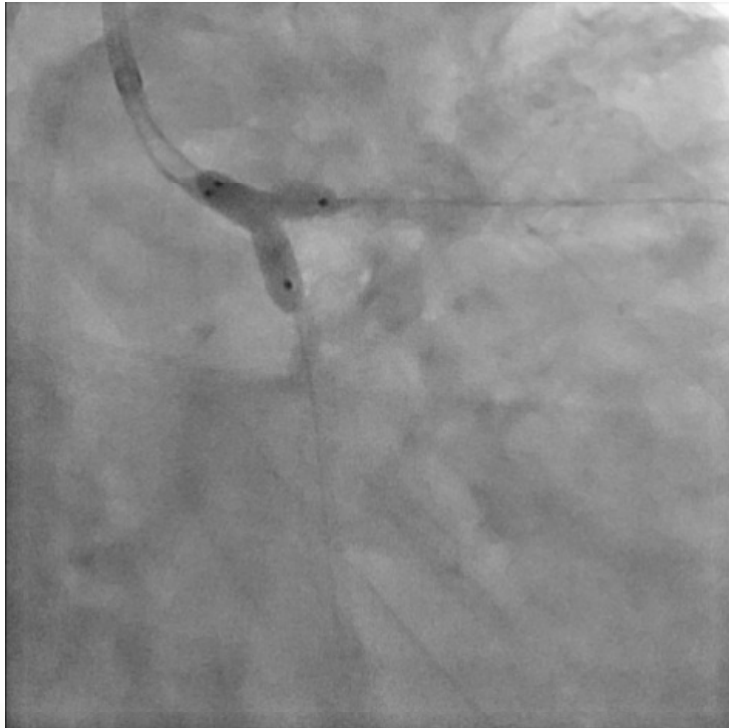


1 Case Review



3.5mm - 18mm xience Stent insertion
Left main~Proximal LCX Cross - over stent

1 Case Review



Kissing balloon
3.0 - 15 balloon (LM~LAD)
& 3.5 - 18 balloon (LM~LCX)



FINAL

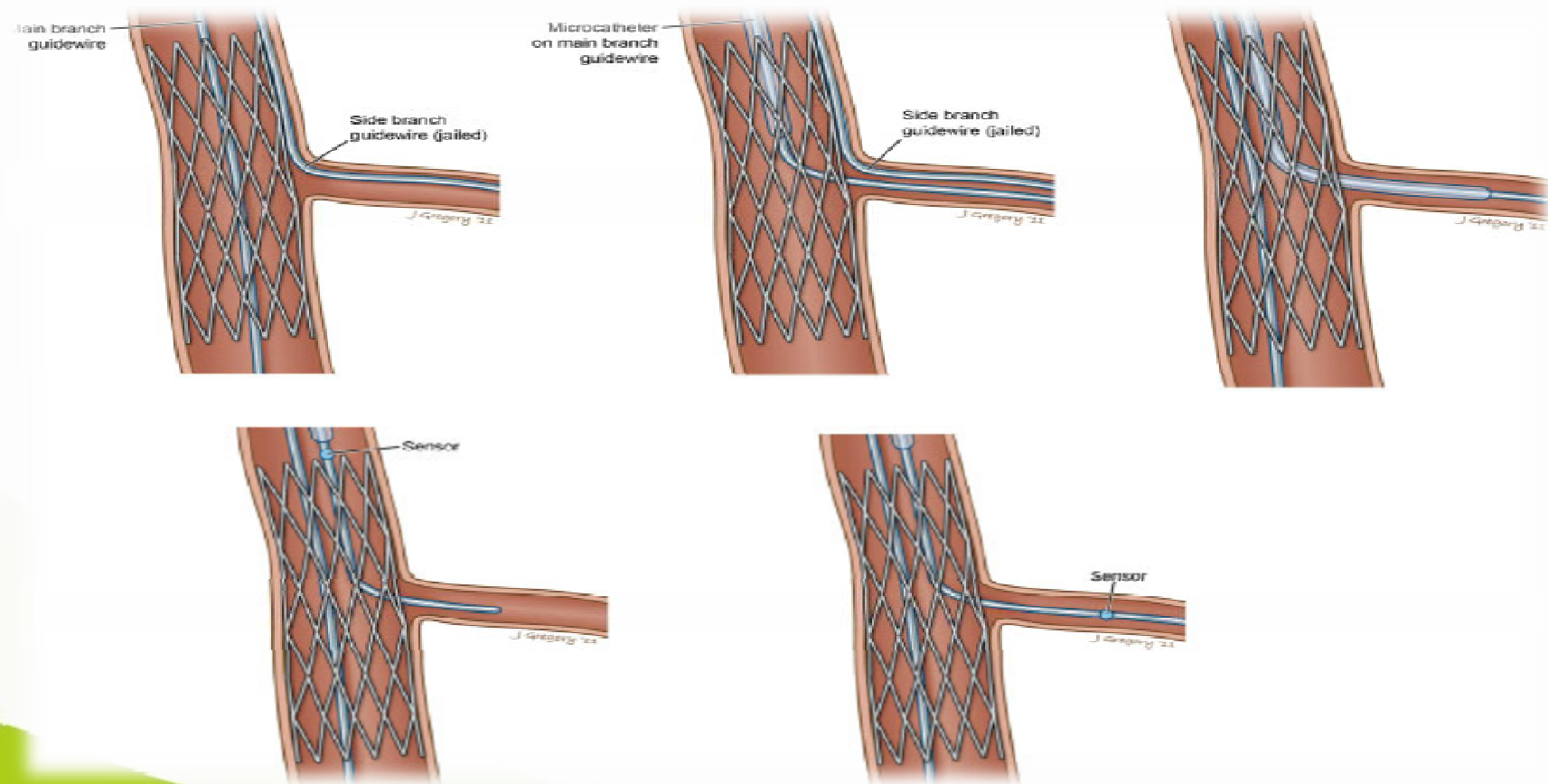
1 Case Review

Int J Angiol. 2012 Mar;21(1):59-62. doi: 10.1055/s-0032-1306419.

A novel technique in the use of fractional flow reserve in coronary artery bifurcation lesions.

Ratcliffe JA, Huang Y, Kwan T.

Department of Cardiology, Albert Einstein College of Medicine, Beth Israel Medical Center, New York, New York.



1 Case Review

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A novel technique in the use of fractional flow reserve in coronary artery bifurcation lesions.

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Department of Cardiology, Albert Einstein College of Medicine, Beth Israel Medical Center, New York, New York.

Result

This technique was successfully performed in 10 patients with difficult SB anatomy. In comparison to the conventional technique, the new technique had a higher success rate and shorter procedural time.

Limitation

This technique may add the extra cost of an additional guidewire and microcatheter. Otherwise, the pressure wire can be normalized inside the guiding catheter before reinserting into the microcatheter, which is not the ideal FFR measurement.

2 Case Review

Patient

58/F

Chief Complaint

Dyspnea on exertional

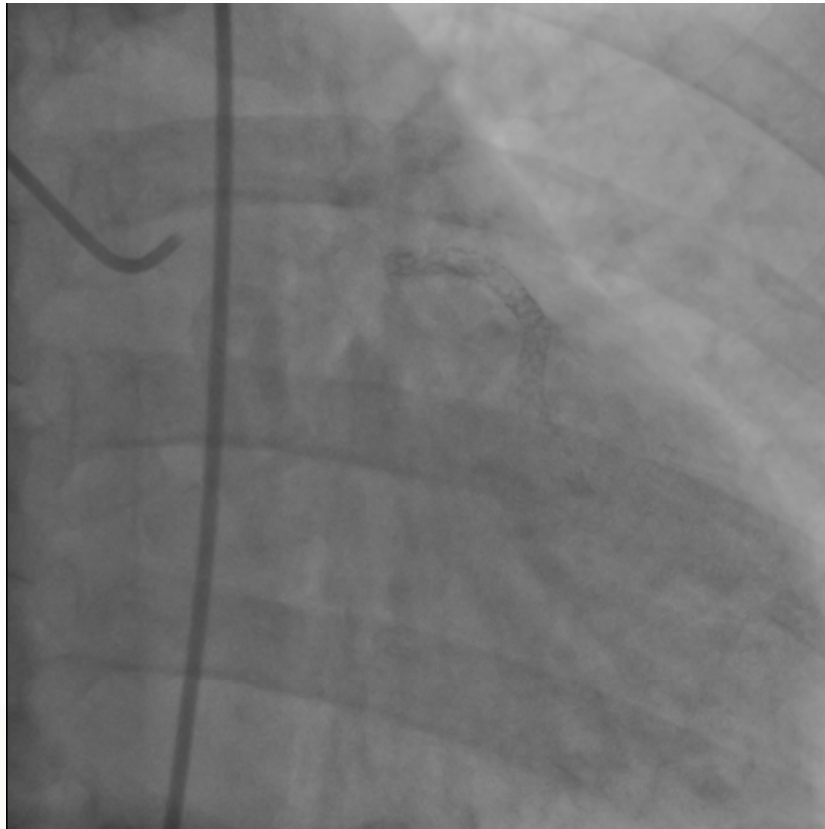
pain with dyspnea .

exertional chest

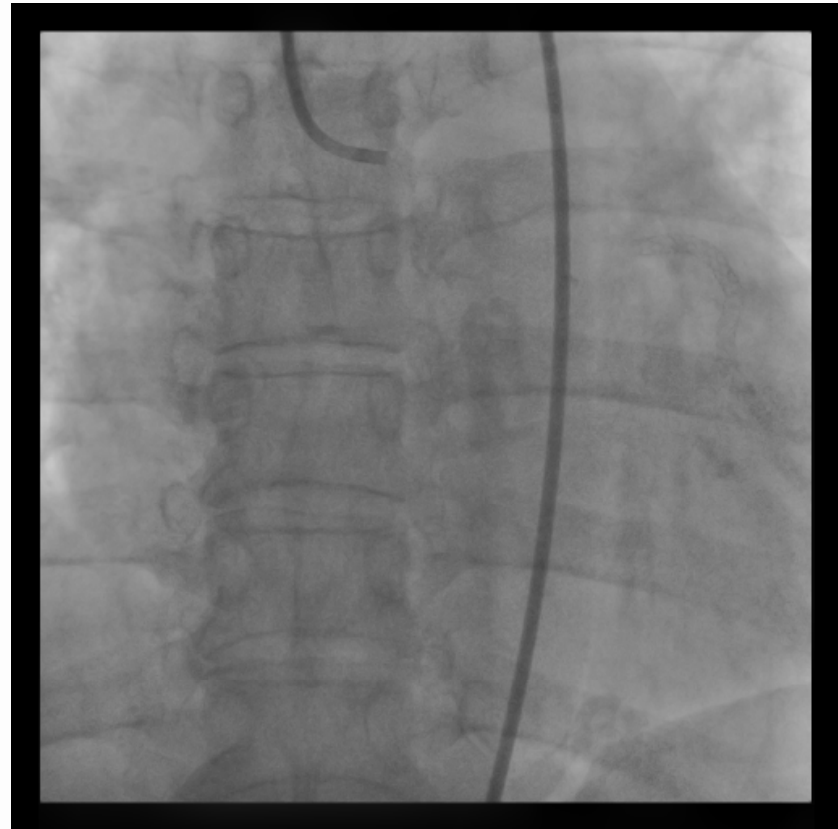
Present illness

1. Stable angina : 2004 .11 ->PCI for pLAD to mLAD

2 Case Review



LCA No ISR
Normal coronary artery



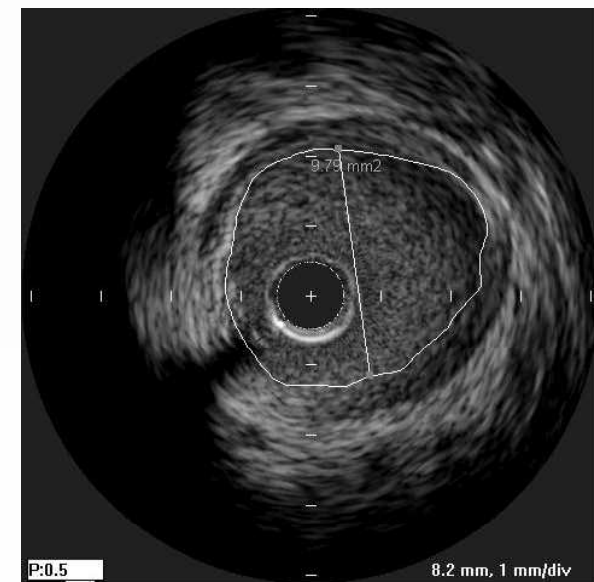
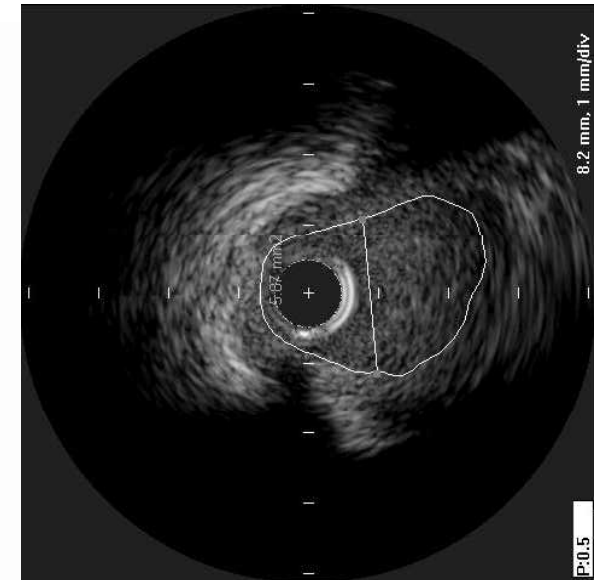
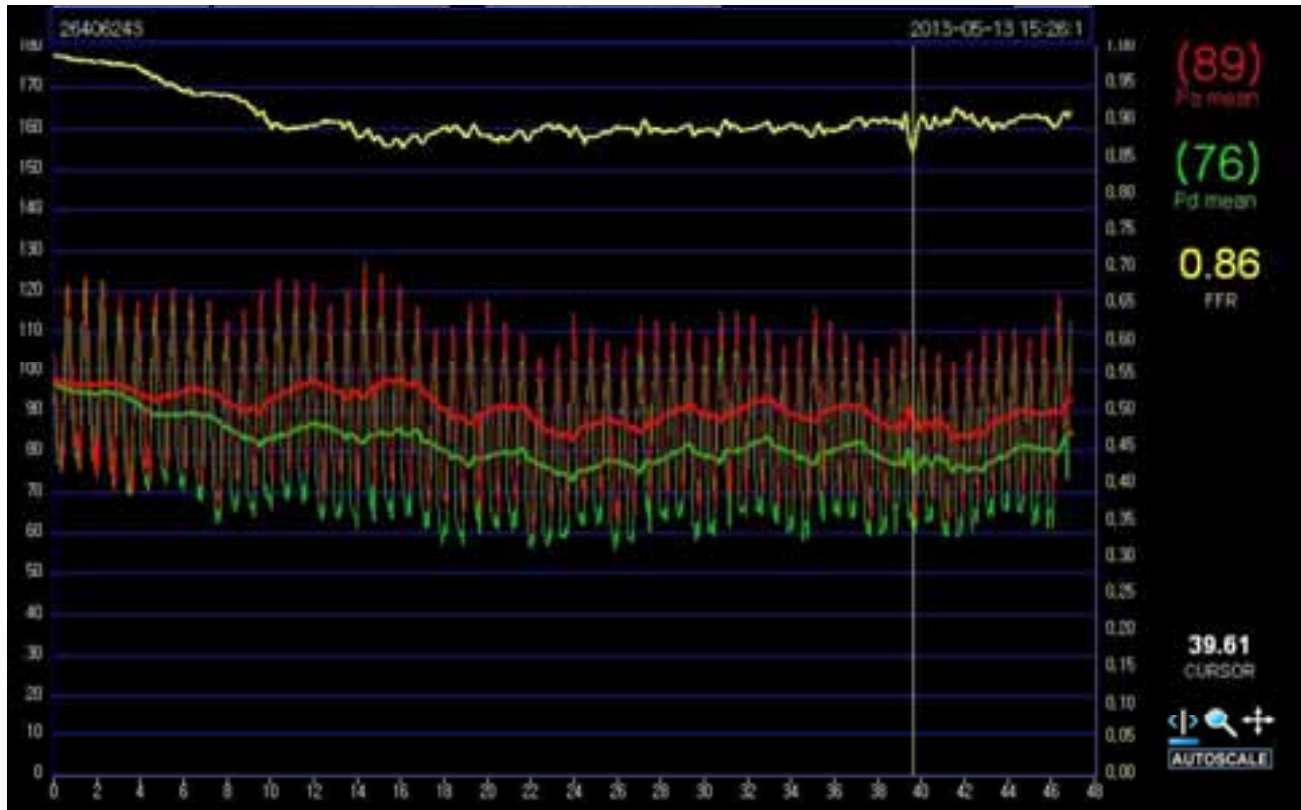
RCA anomalous origin of RCA

2 Case Review



RCA anomalous origin of RCA

2 Case Review



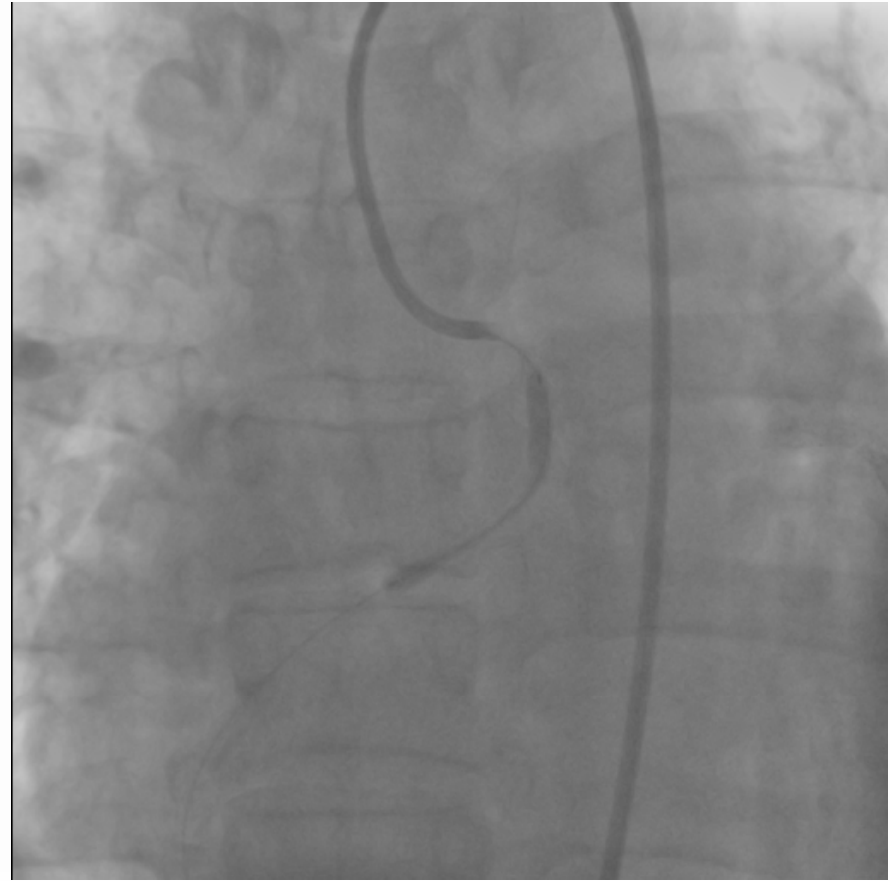
Heart beat vessel .

$$\text{FFR} = 0.86$$

2 Case Review

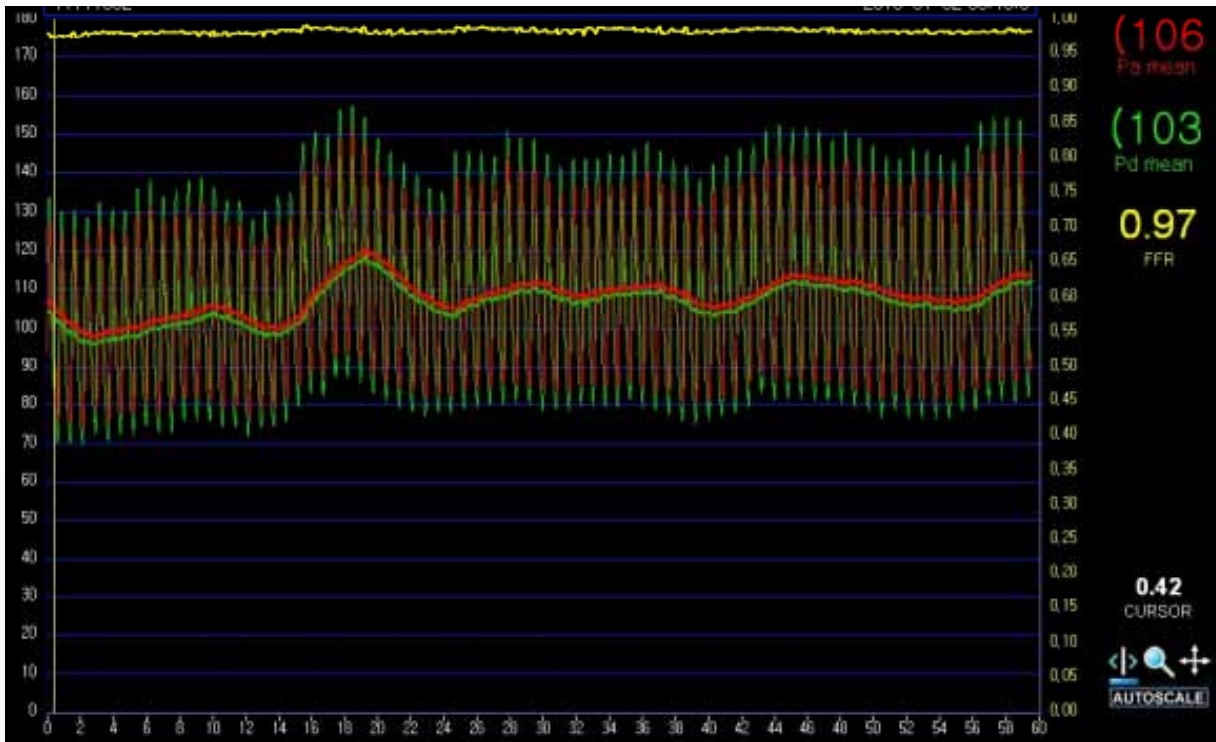


2 Case Review



3.5mm - 38mm pRCA Stent insertion

2 Case Review



- One month later
1. CAD(1VD), no ISR
 2. Anomalous origin of Rt. Coronary artery

much improved

Post procedure FFR = 0.97