

Left Main Trifurcation Lesion

***Treated with Cross-over Technique
Using Drug-Eluting Stents***

**Operator;
Seung-Jung Park
Seong-Wook Park**

***CardioVascular Research Foundation
Asan Medical Center***

Angioplasty Summit 2007 Live Case

Demographic Characteristics

Age : 65

Gender : male

Risk Factors : Hypertension, Smoking

Past History : History of CVA in Jan.2000 without sequale

Family History : No

Clinical Presentation

Stable angina

Non-Invasive studies : Echocardiography – Normal

Treadmill test – Not done

Thallium scan – Not done

Cardiac Catheterization Findings

Left angiogram showed significant distal LM trifurcation, diffuse middle LAD and diffuse distal LCX narrowing lesions.

Right angiogram showed significant middle RCA narrowing lesion, which was treated with DES at 2 days ago.

Target lesion(s)

1. Distal LM trifurcation

Planned strategy

1. Directional atherectomy at LM shaft to ostium of LAD lesion

2. Kissing ballooning after Cross-over stenting

Adjunctive Medication

ASA : Yes

LMWH : No

Clopidogrel: Yes

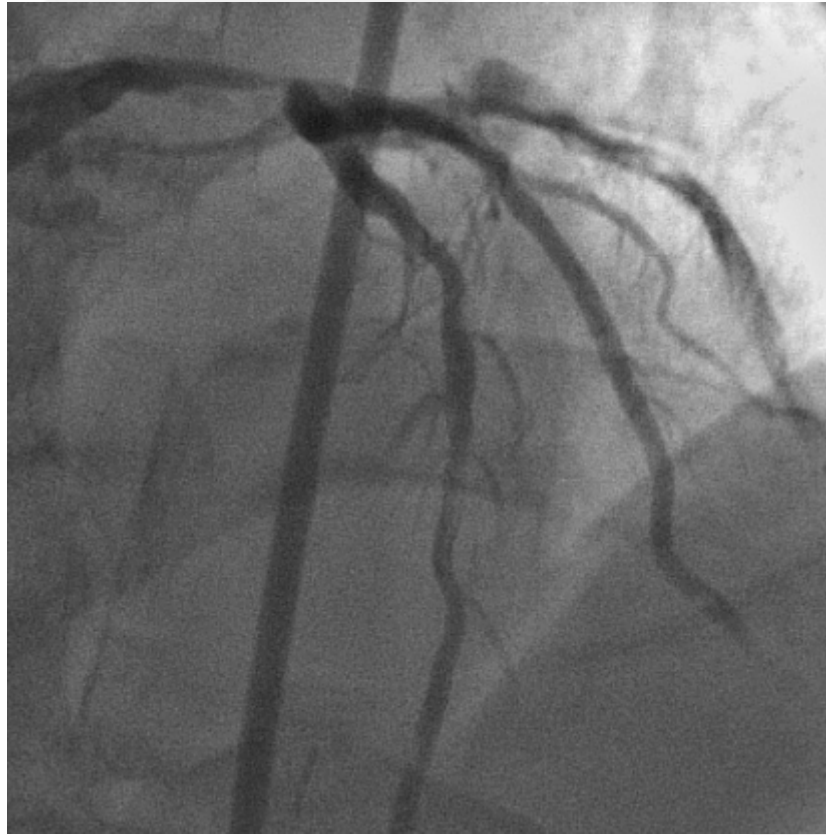
Heparin : No

Nitrates : Yes

IIb/IIIa : No

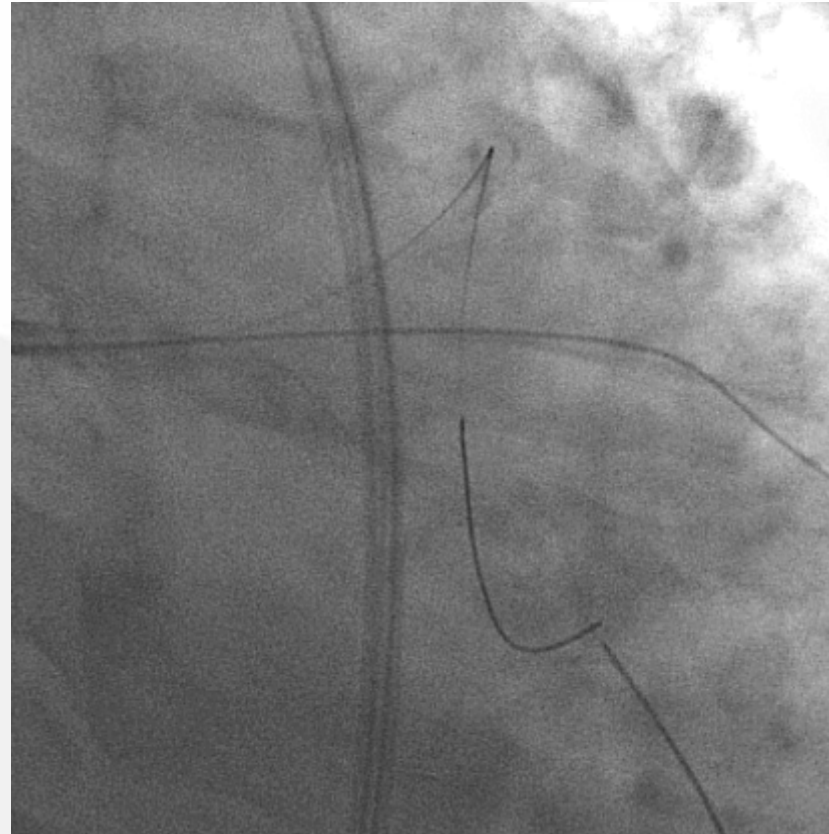
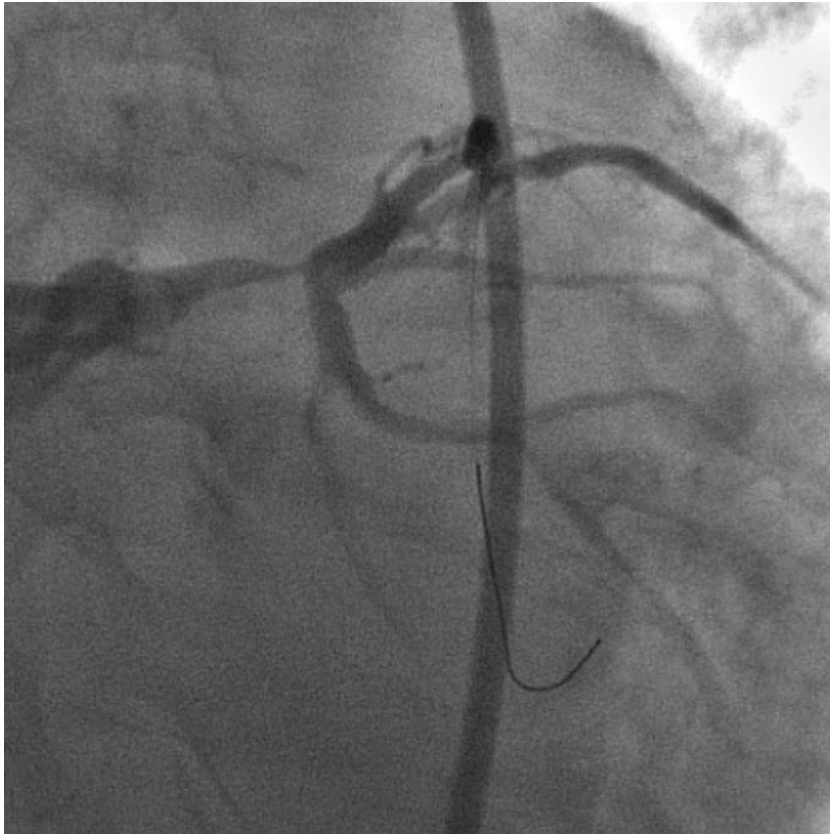
Other(s): β -blocker

Baseline Angiogram



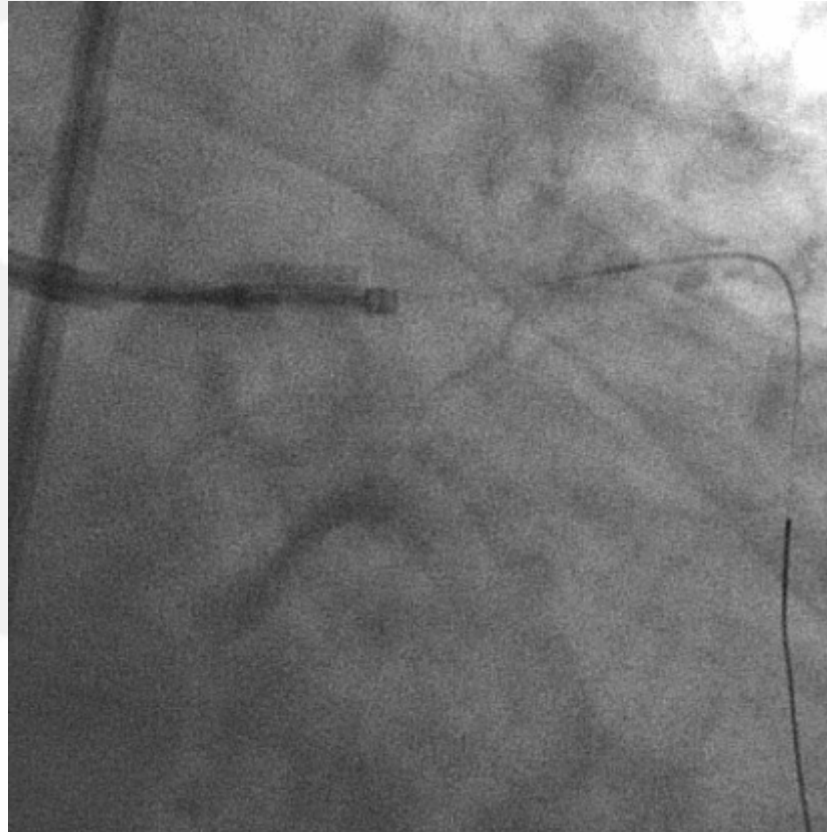
Guiding catheter : 8Fr EBU

Wiring



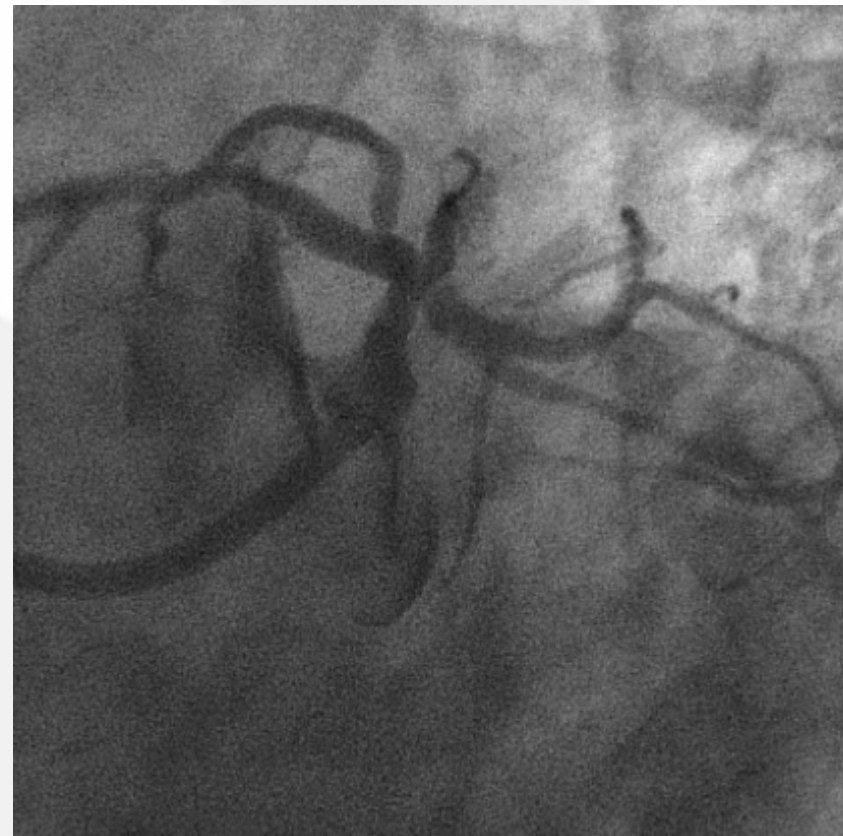
Floppy (Flexi) 0.014"-300cm wire to LAD
Floppy (BMW) 0.014"-190cm wire to LCx
Choice PT 0.014"-182cm wire to RI

Directional Atherectomy at LMCA



Flexi-cut 3.5-4.0 mm at LM to ostium of LAD

After DCA at LMCA

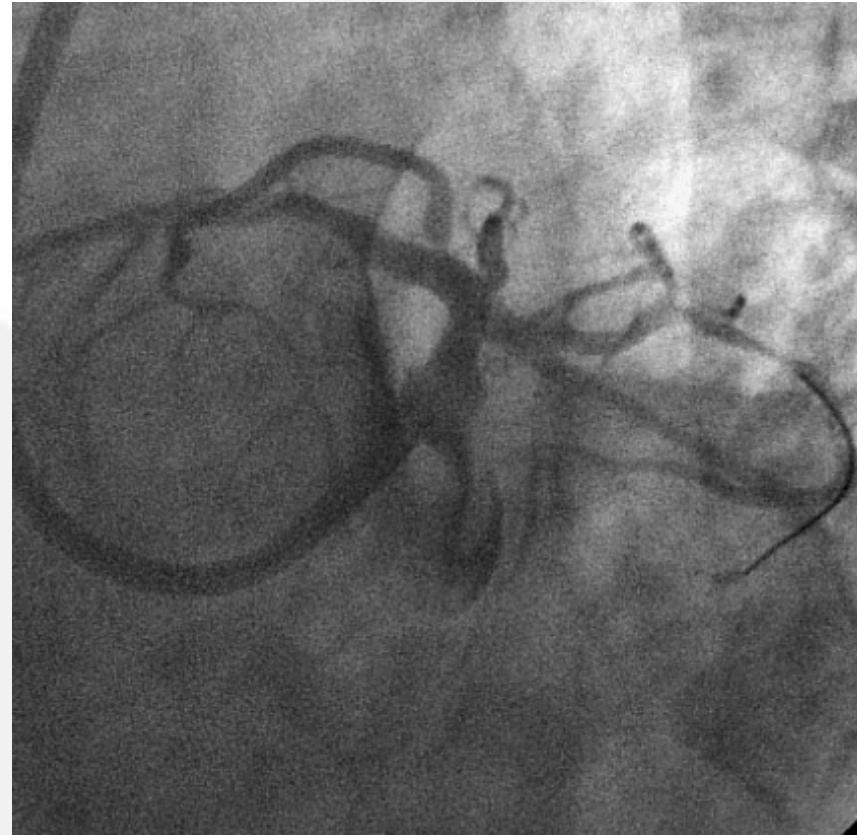
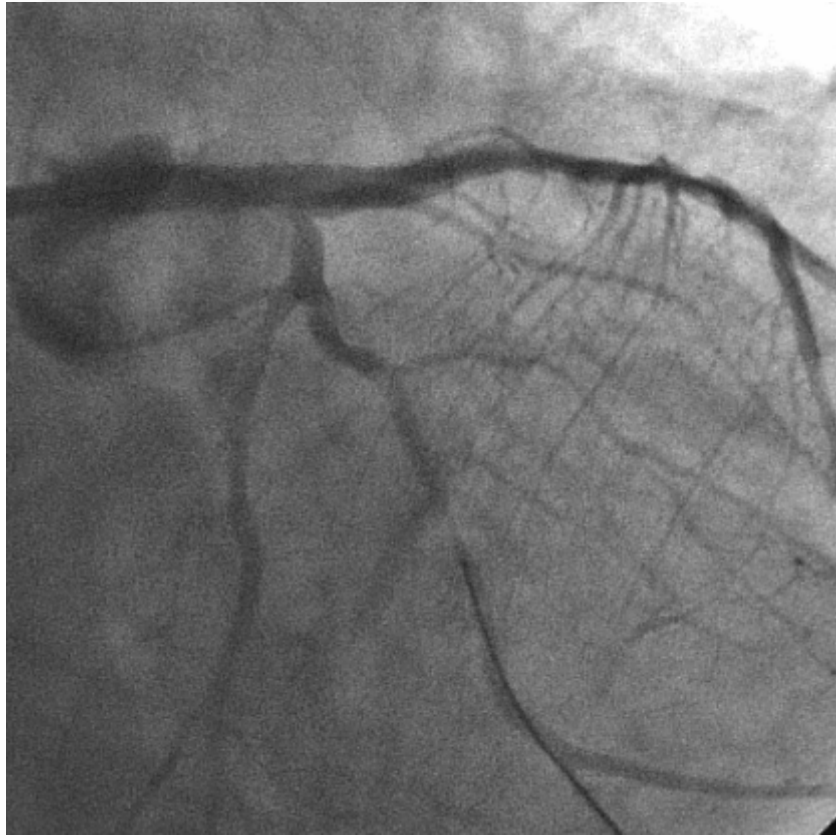


Stent Positioning



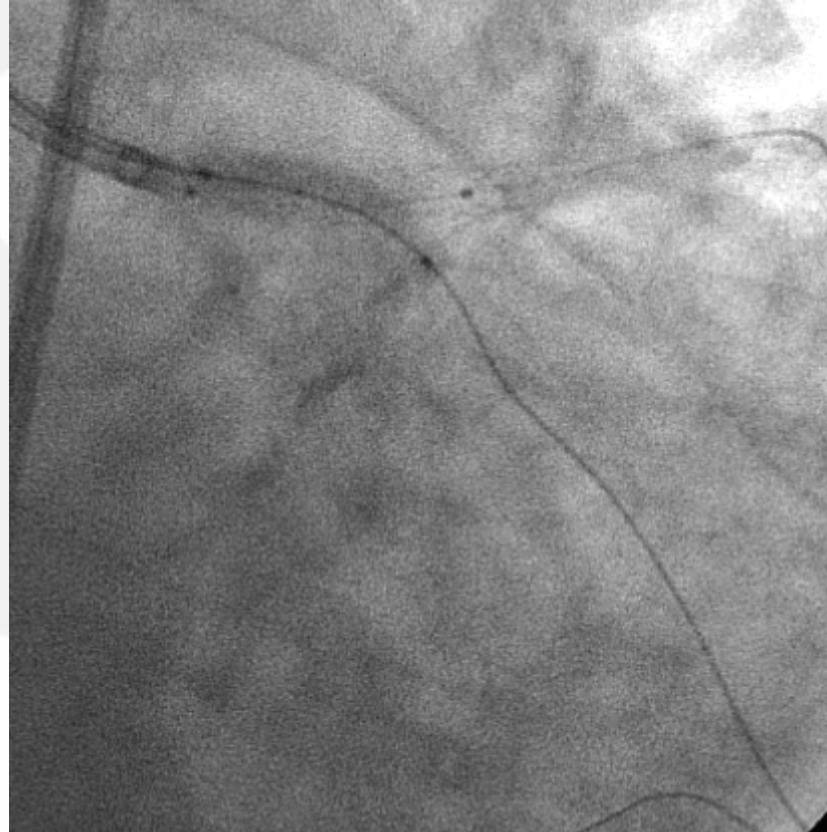
Cypher 3.5x28 mm at LMCA to proximal LAD

After Stenting



Post-LM to prox LAD stent

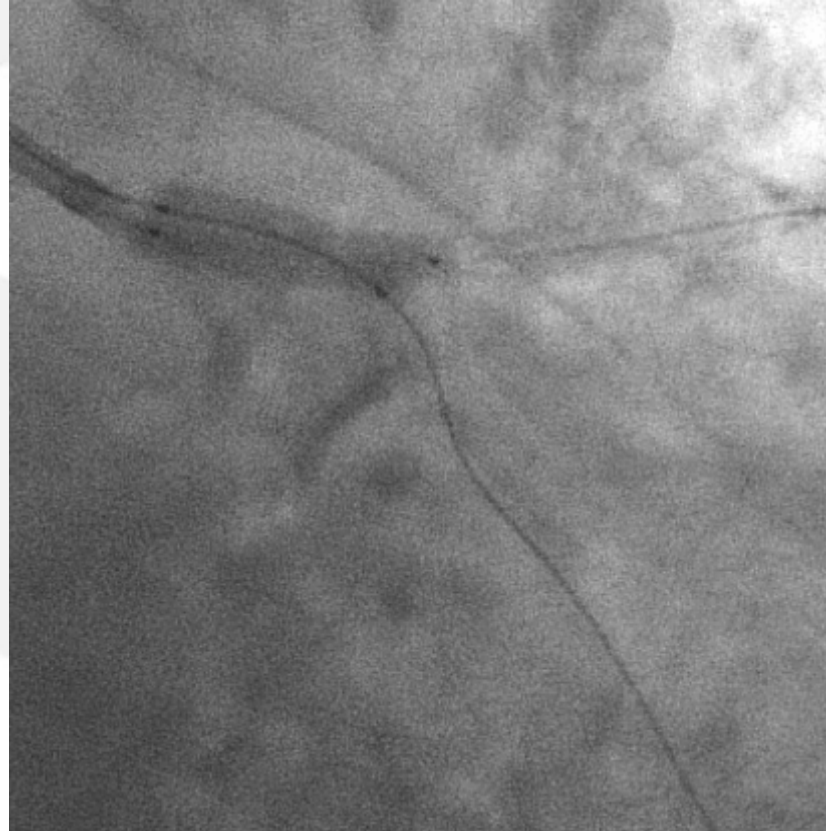
Additional Balloon Dilation



LM to prox LAD : Ryujin 4.0x20 mm upto 4.46 (16atm)

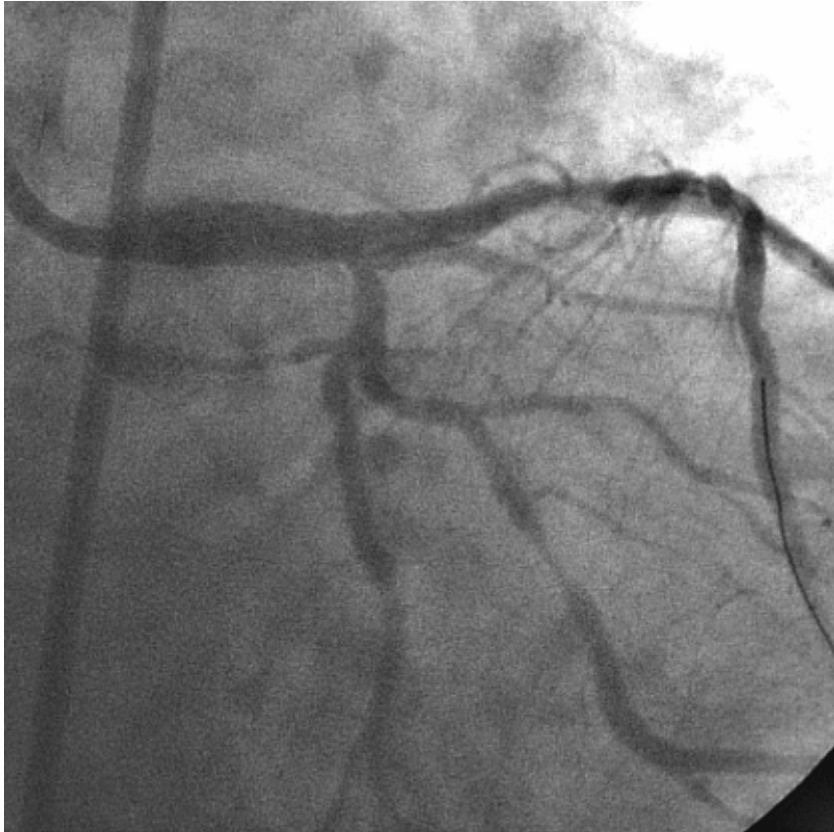
LM to prox LCx : Sprinter 3.0x20 mm upto 3.15 (10atm)

Kissing Ballooning



LM to prox LAD : Black-Hwak 3.5x20 mm upto 3.72(10atm)
LM to prox LCx : Sprinter 3.0x20 mm upto 3.15 (10atm)

Final Angiogram



Brief Case Summary

A 65 year old man was admitted with effort chest pain. His risk factors were hypertension and smoking. Baseline ECG and echocardiography were normal. Coronary angiogram showed significant distal LM trifurcation, diffuse middle LAD, diffuse distal LCX, and middle RCA narrowing.

Teaching Points

- 1. Stenting techniques for LM distal trifurcation lesion**