BVS in LM lesions, why not?

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BVS in LM lesions, why not?

No conflict to disclose

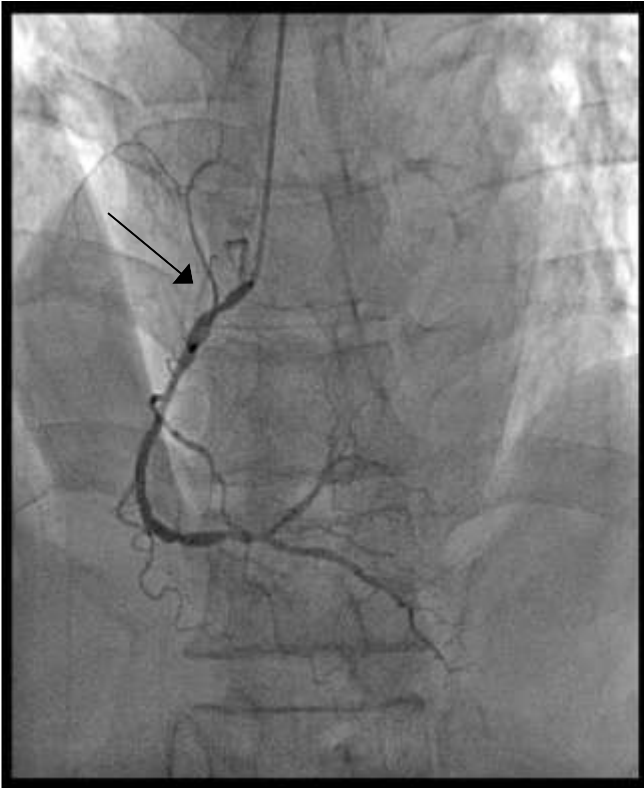
BVS in left main, why not?

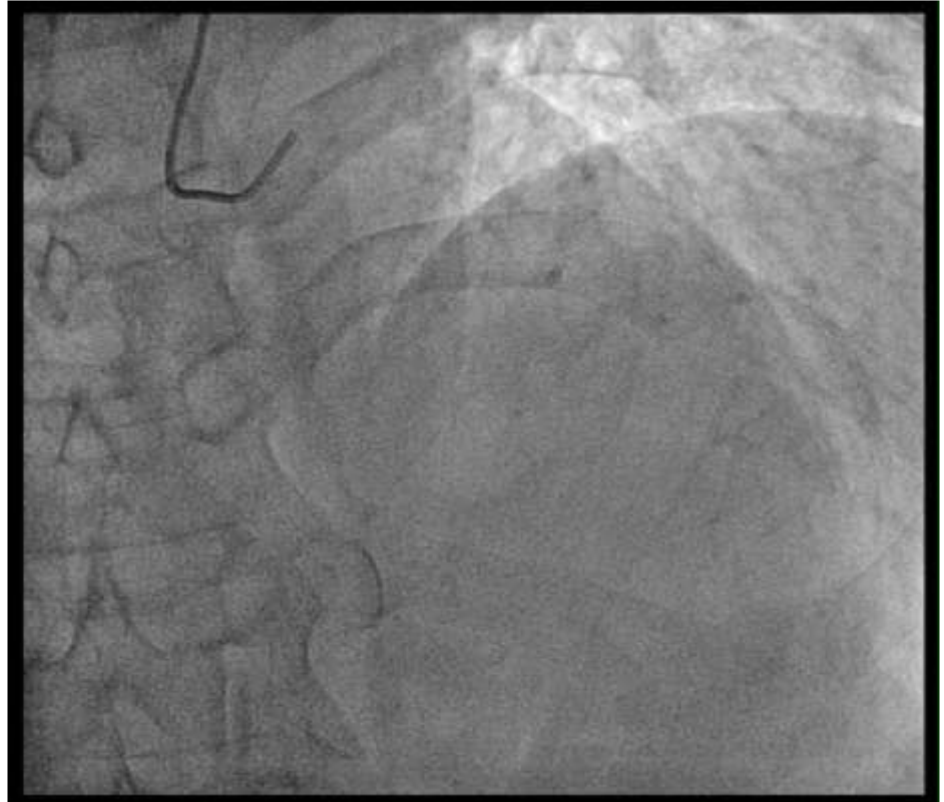
- **What is known from the bench testing ?**
- **1/** max expansion of a 3.5mm BVS (largest available) is 4mm, 4.2 max if we want to respect the integrity
- **2/** cells size expansion? (no more than 3mm)
- **3/** bifurcations cannot be treated with BVS like as a traditional metallic DES bifurcation

Case History(2014)

- 71 yr male CCS II Angina for 2 months
- Background: Non-Insulin Dependent Diabetes
- Preserved renal function: serum creatinine=77µmol, clearance 78 mL/min
- Preserved LV function with normal ECG
- Active and otherwise well

Diagnostic Angiography



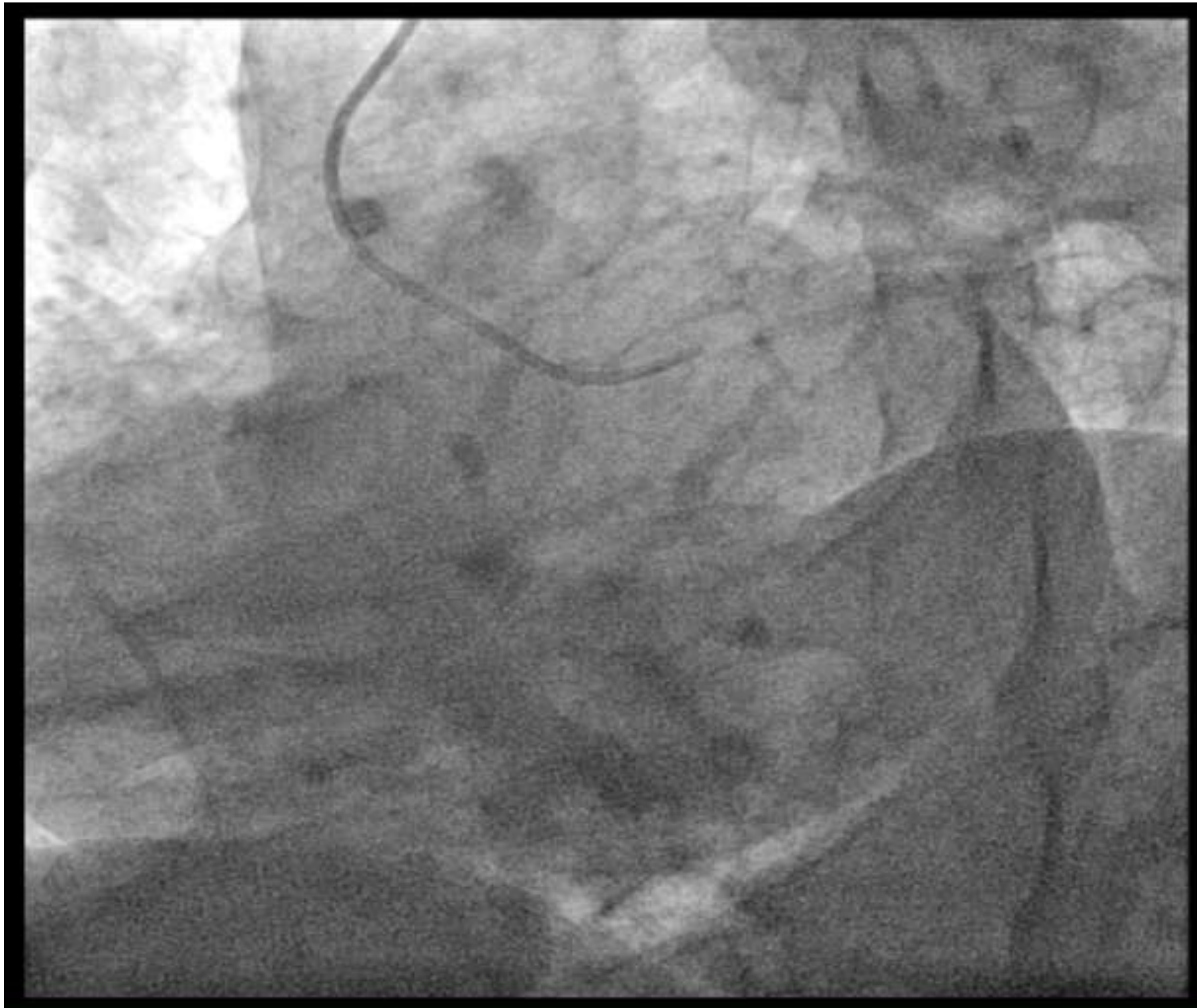


RCA: proximal lesion

LMS: distal lesion

LAD: mid and distal lesions

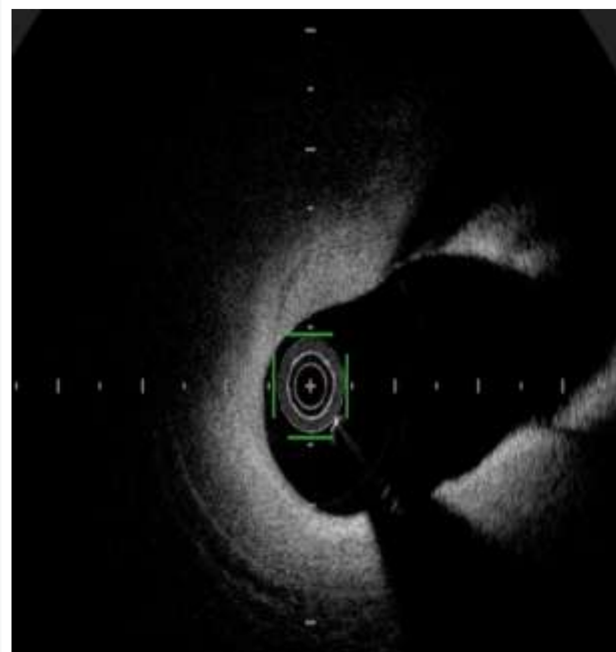
Diagnostic Angiography- LMS Lesion Medina (1,0,0)

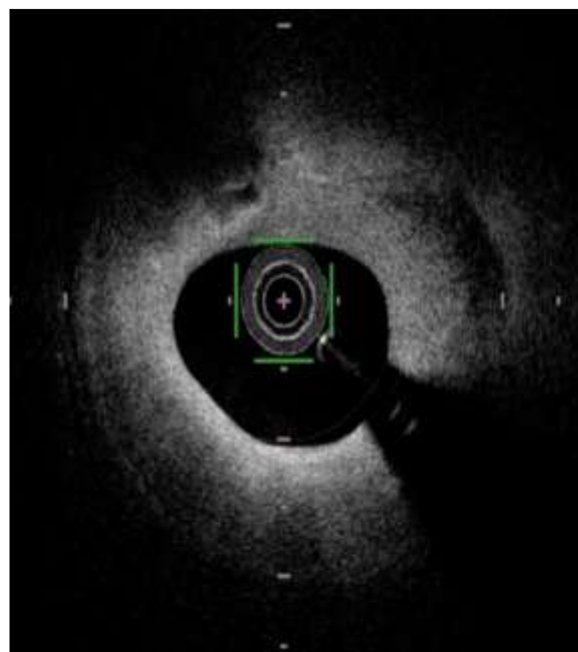


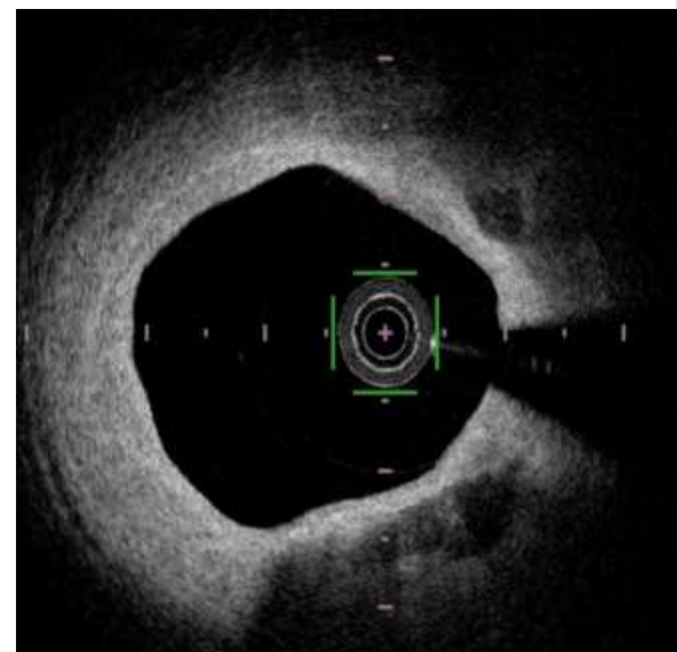
Diagnostic Angiography

- LMS (1,0,0) with FFR Left Main/ LAD =0.79
- Severe lesion LAD mid and distal
- Significant RCA proximal
- Syntax Score= 21(Low Risk 0-22 Group)
- Euroscore II= 0.92%(low risk for CABG)

OCT LMS Pre





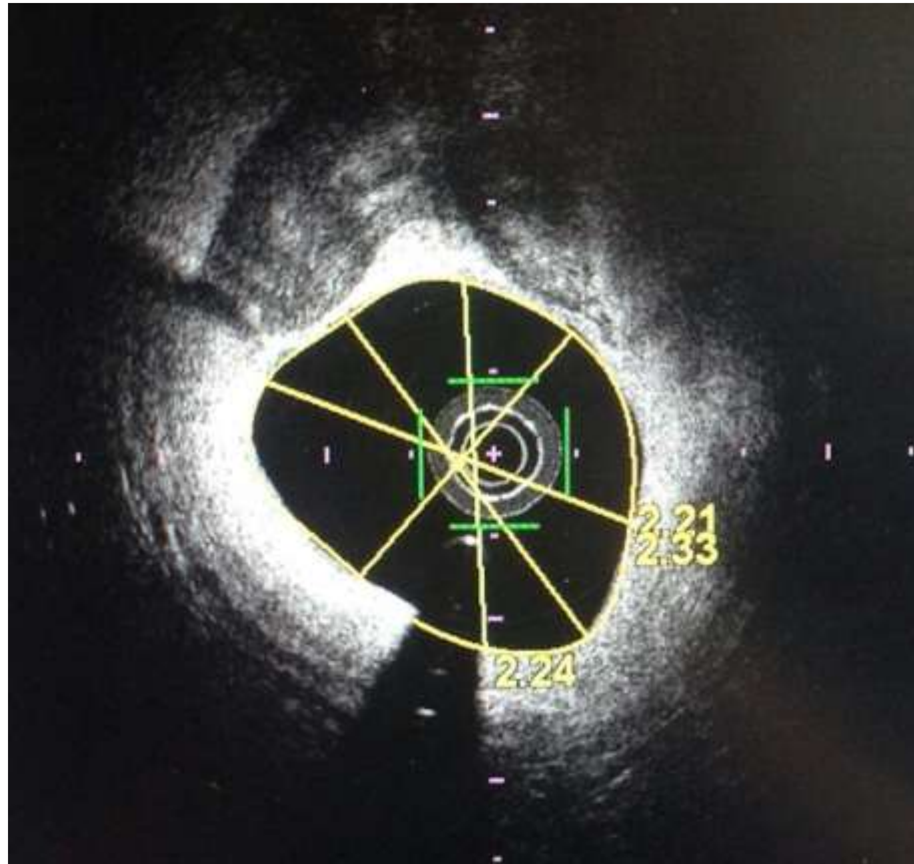


OCT Bifurcation

OCT Distal LMS

OCT Proximal LMS

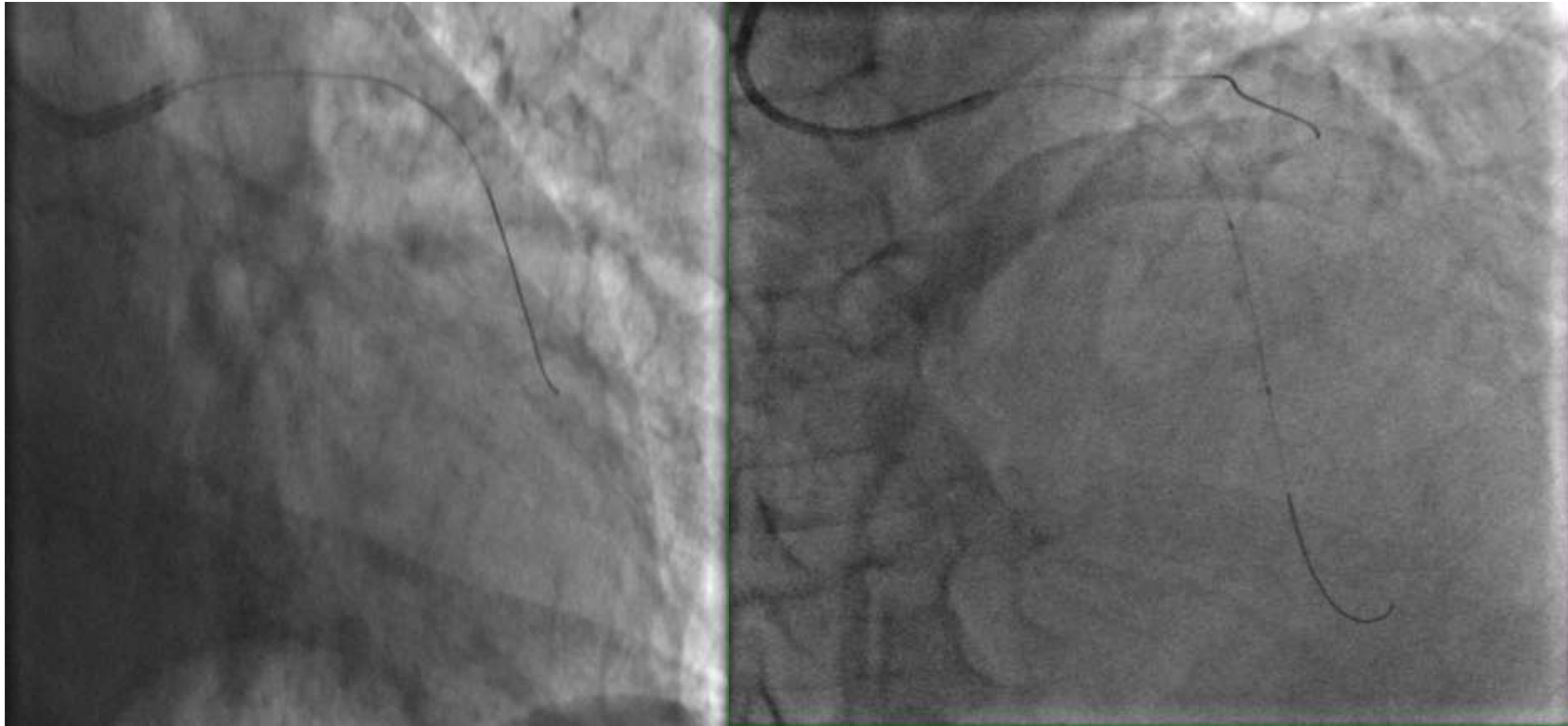
OCT LMS Measurement Pre



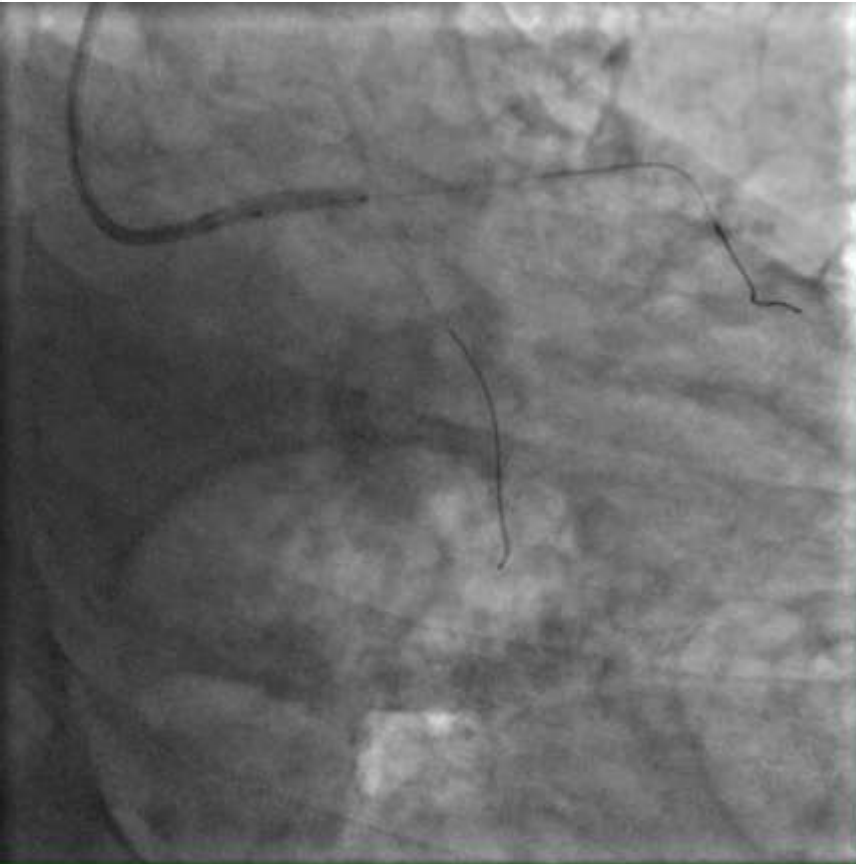
Index PCI LAD and LMS

- 6F Right radial access,
- EBU 3.5 and 2 BMW wires
- Non compliant balloons for predilatation
- BVS Everolimus-eluting Stents

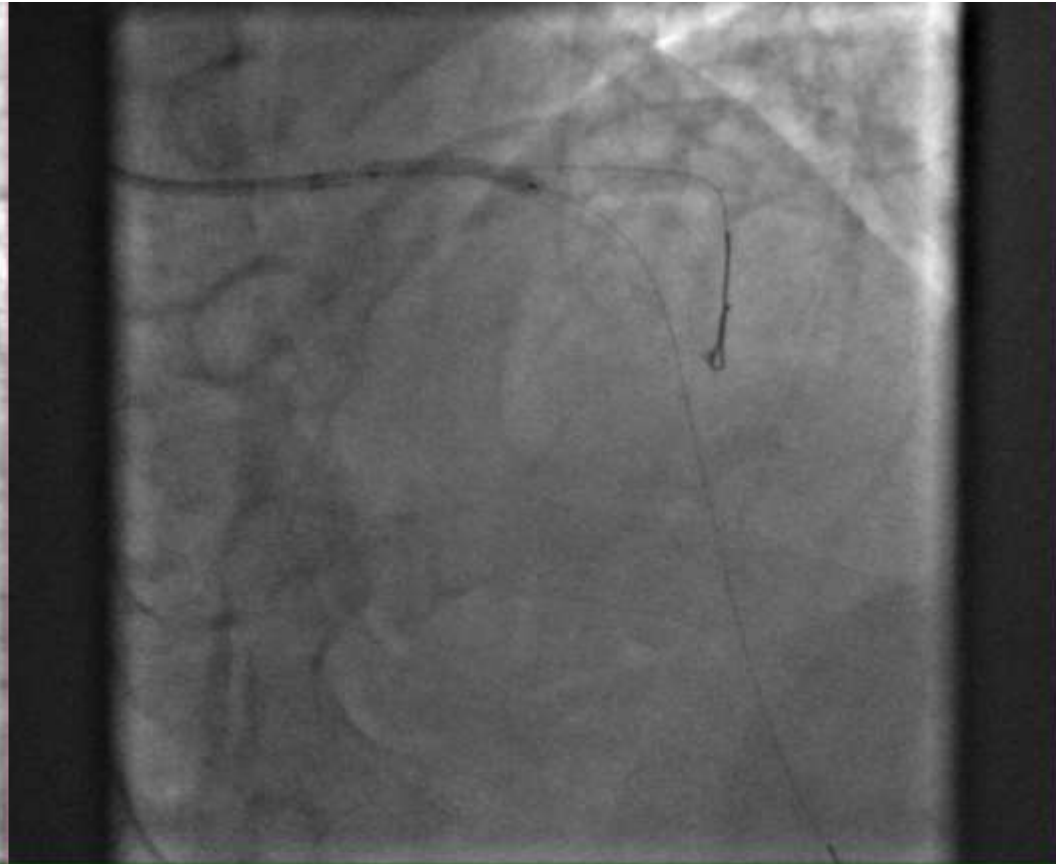
PCI to LAD Abbott BVS 2.5 x 28 mm to 12 atm post dilated at @) atm with non compliant balloon



PCI to LMS: Abbott BVS 3.5 x 18mm

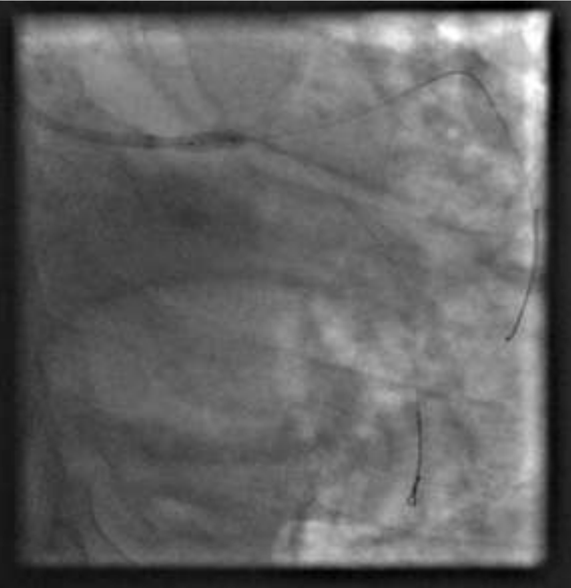


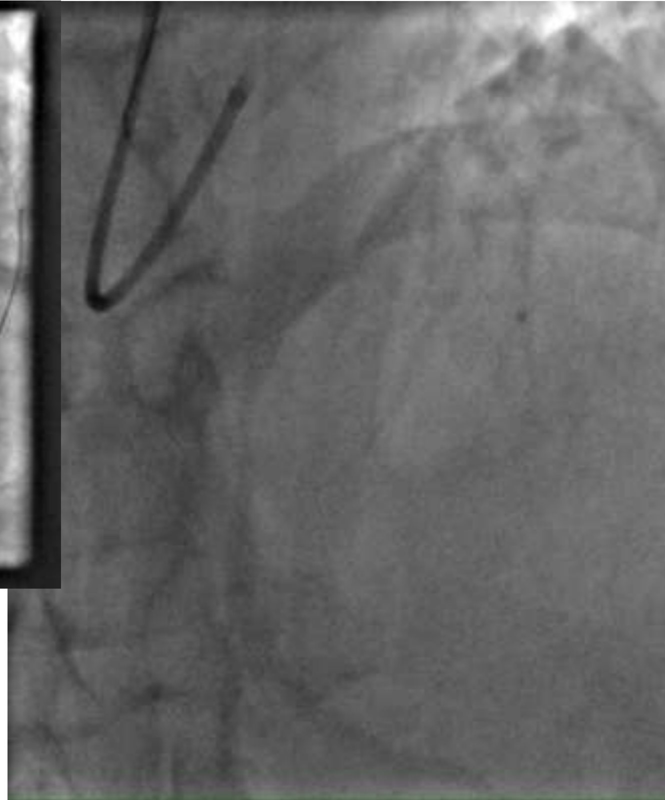
Predilatation Trek 3.5 x 15 mm to 14 atm

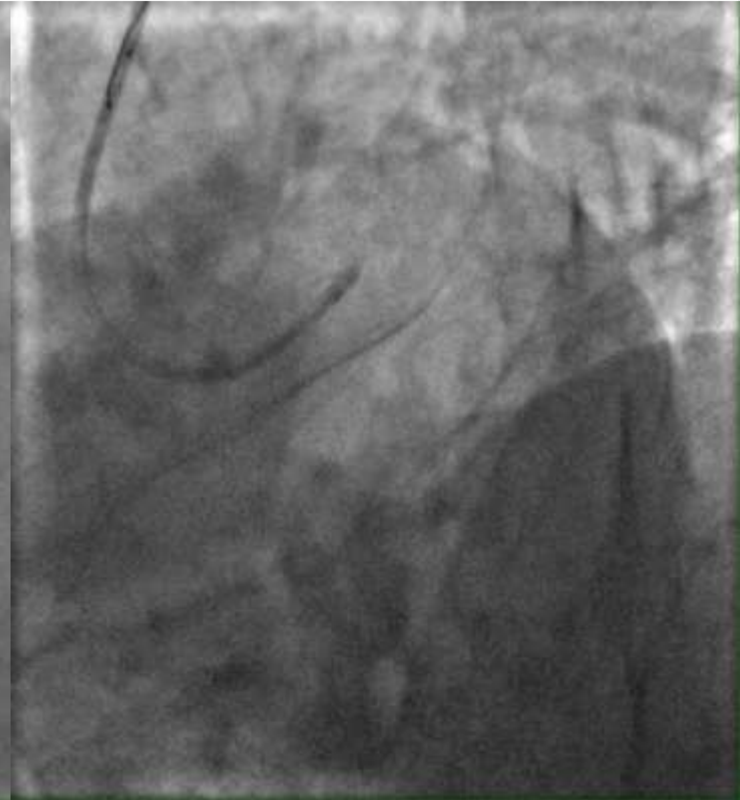


Stent deployment to 10 atm

Post Dilatation and Final Result

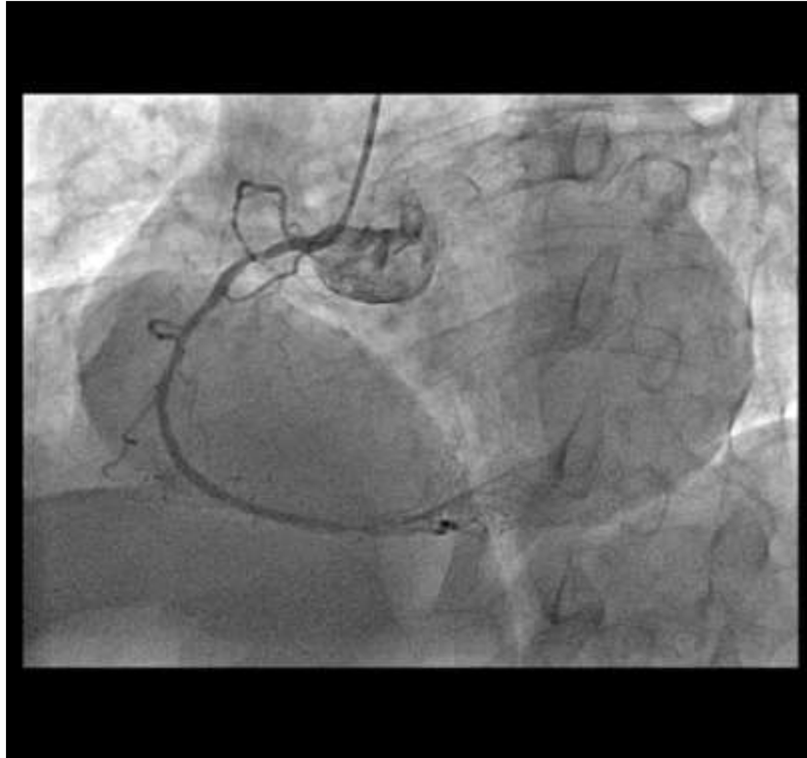


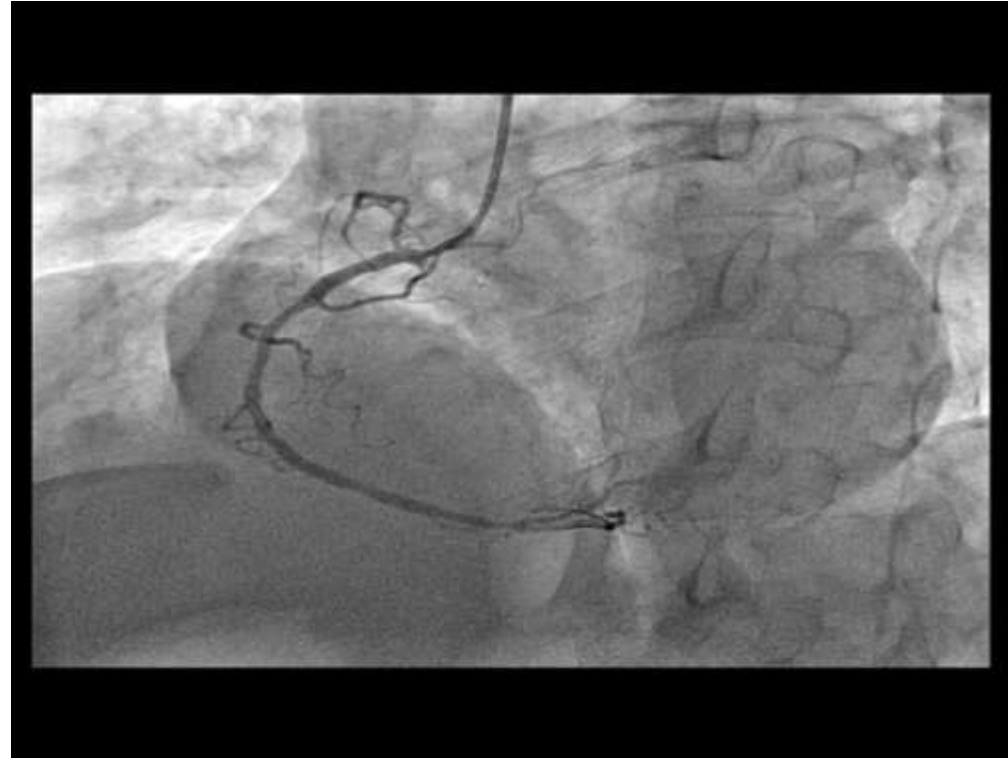




4.0mm x 15 mm Trek to 18 atm

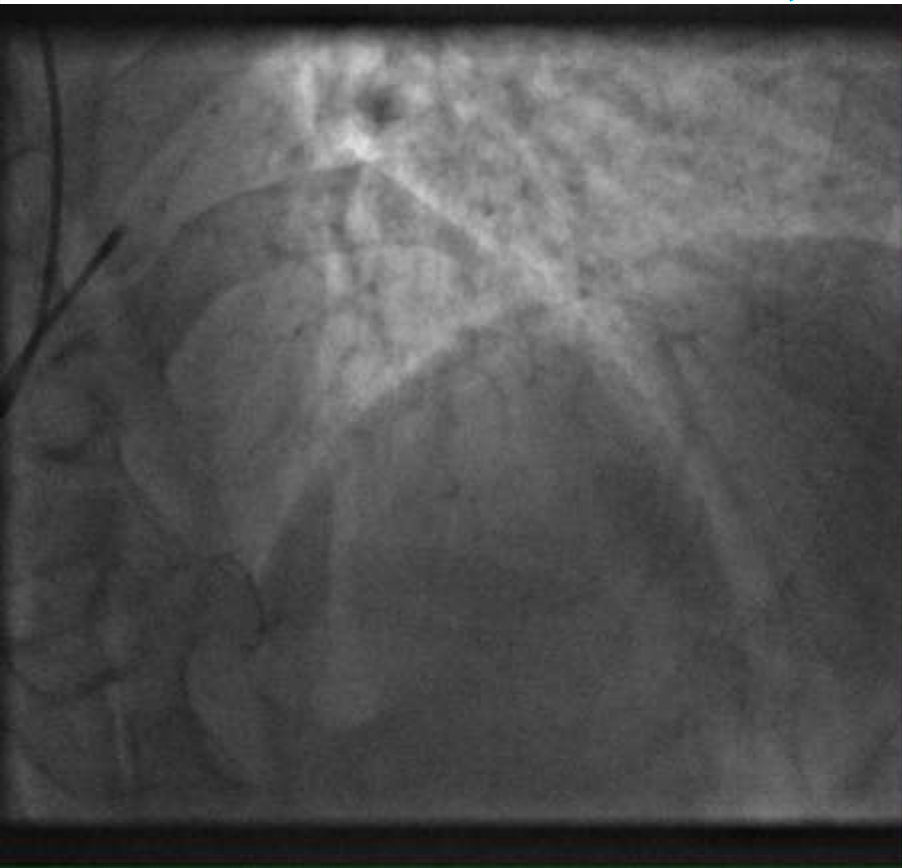
PCI RCA 2 weeks later

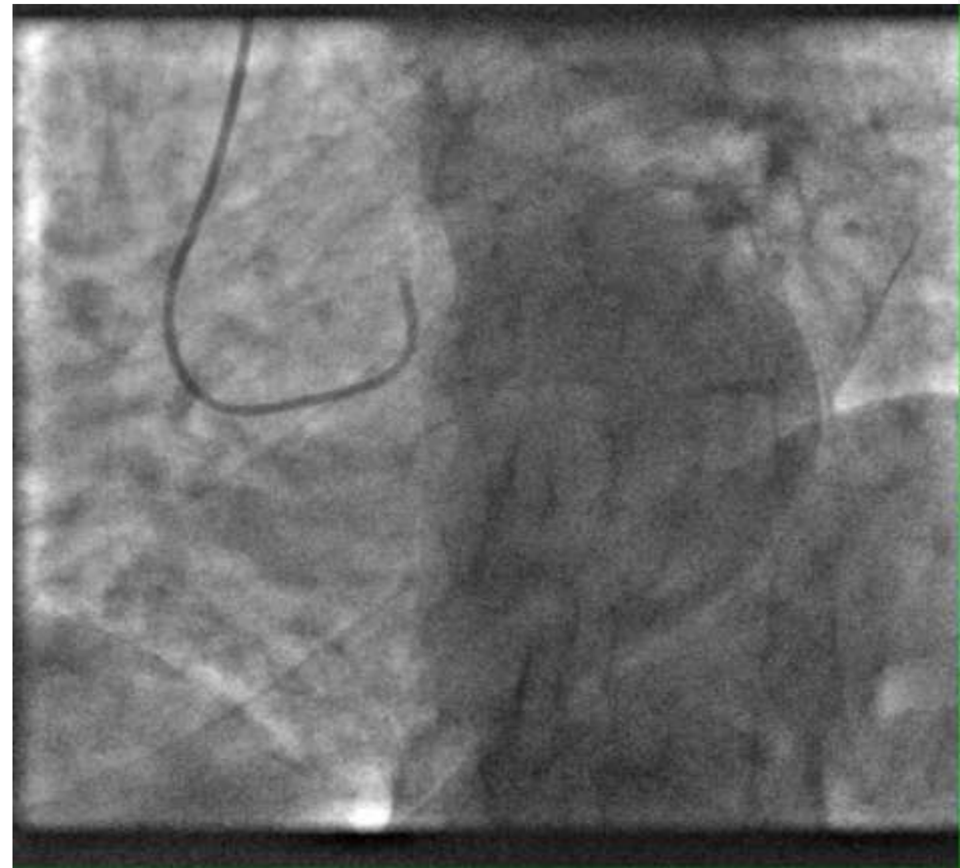




Nobori Biolimus-A9 3.0 x 14 mm

Control angiogram at 14 months for atypical symptoms, FFR negative on LAD,LM and RCA





Summary

- BVS seems to be as effective as last generation DES, and have many advantages compared to DES , in particular for young patients, but also in bifurcation allowing simple cross over technique
- If all bench informations are taken into account (no over expansion, new ways of performing bifurcations (M/S/M or snuggle)
- Why not use them in pts with small LM (less than 4.2mmm while waiting for larger BVS?
- Additional imaging (IVUS/OCT) is mandatory