

VALUE OF STRESS CMR TO GUIDE REVASCULARISATION IN MULTI-VESSEL CAD

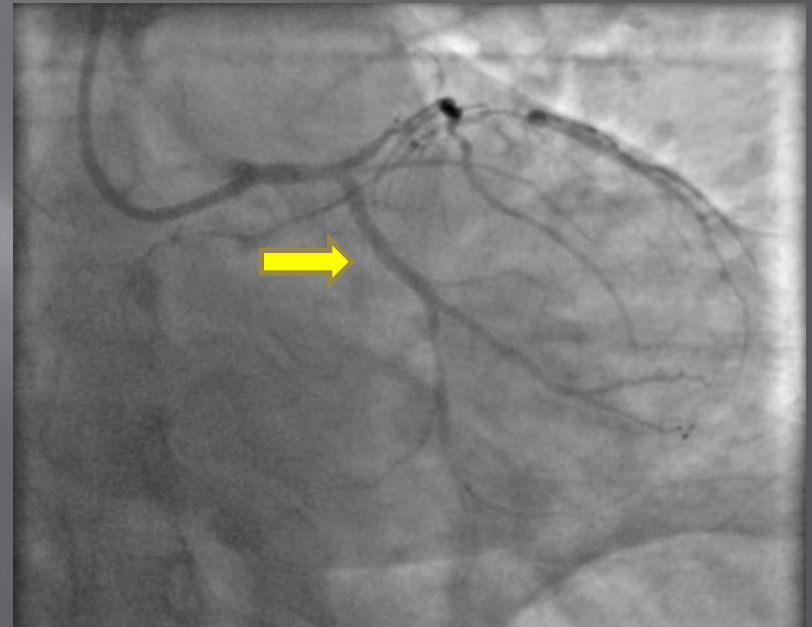
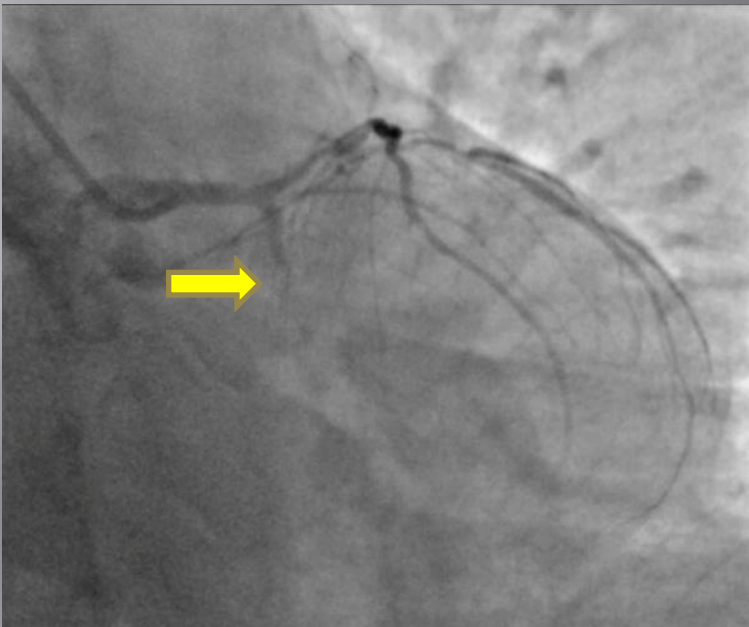
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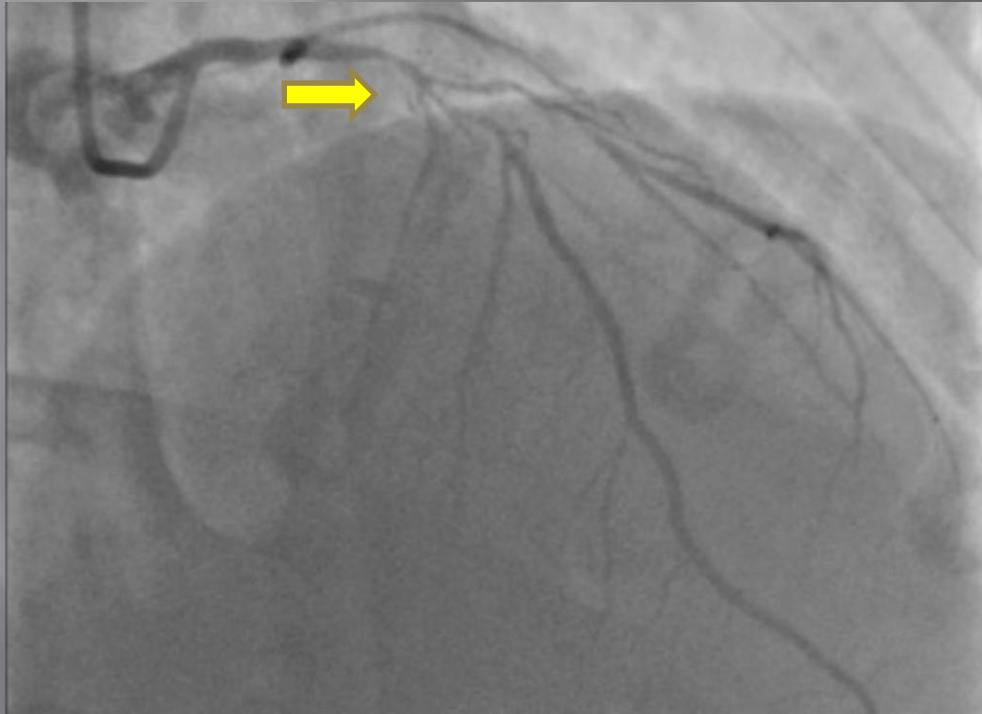
History

- ▣ 42 Year old South Asian Male
- ▣ Acute Chest Pain
- ▣ ECG: Lateral ST elevation
- ▣ Risk Factors: Hyperlipidemia, Smoker
- ▣ Admitted for Primary Angioplasty

Primary Angioplasty (PCI) to culprit LCX



Significant non-culprit disease in LAD + first diagonal branch



Significant non-culprit disease in mid and distal RCA

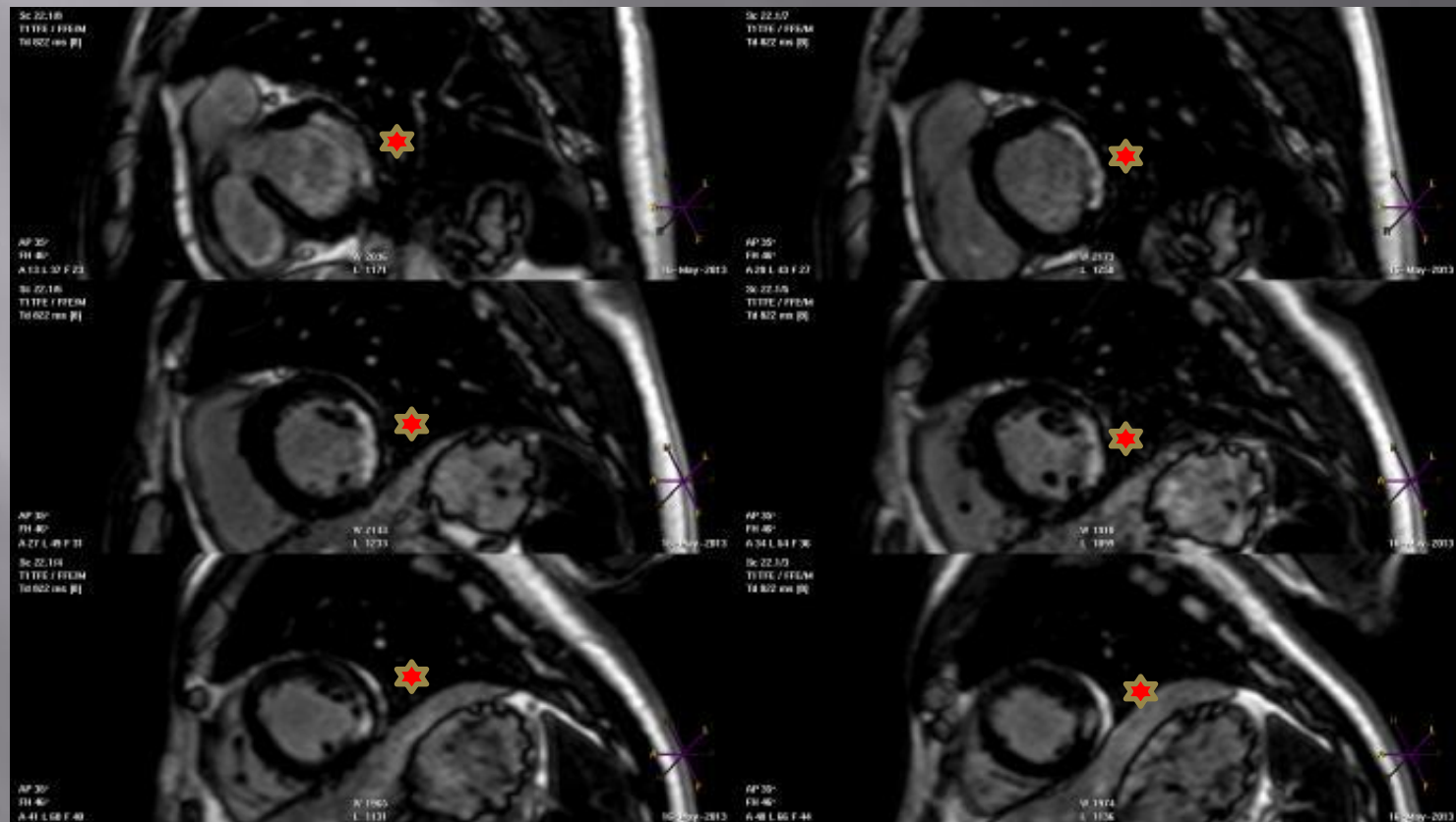


Plan

- ▣ CABG recommended – Patient declined.
- ▣ On follow up, **Class 3 Angina despite optimal medical therapy.**
- ▣ CABG recommended- Patient declined and opted percutaneous coronary revascularisation.

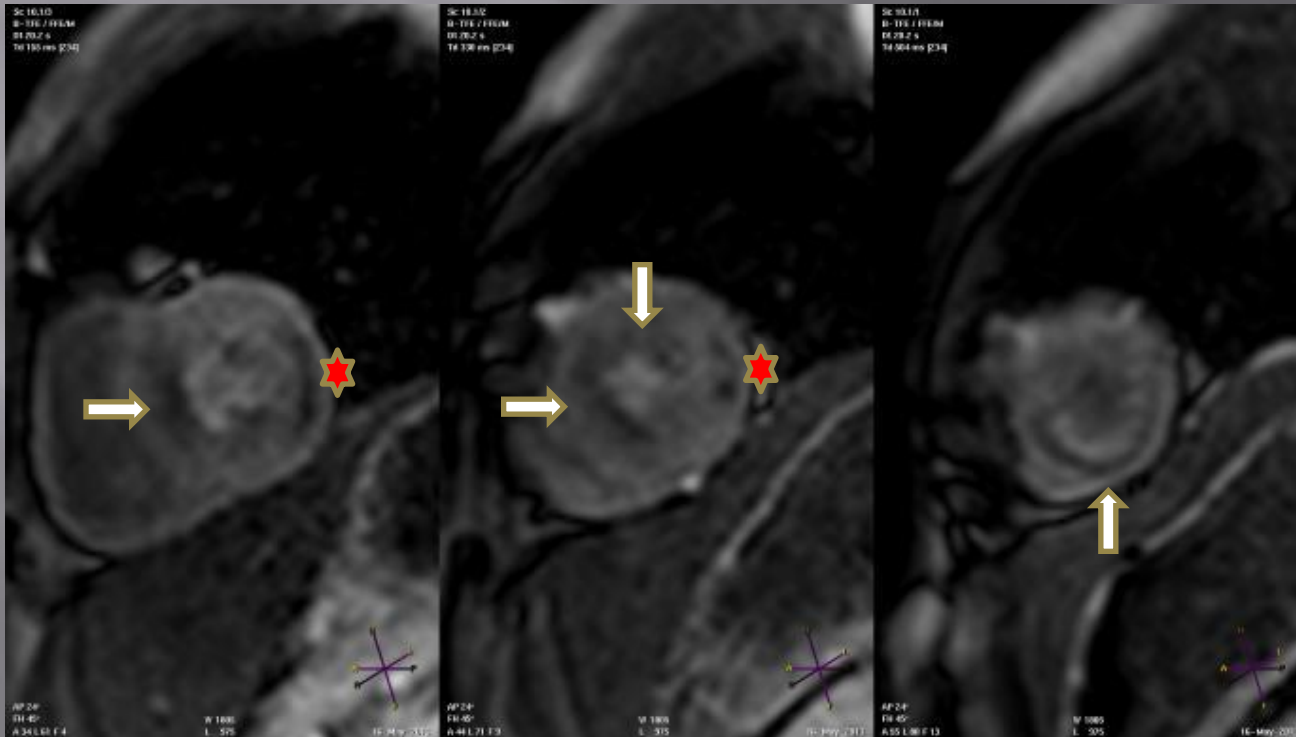
Perfusion CMR to guide revascularisation strategy

Sub-endocardial late gadolinium enhancement (LGE)



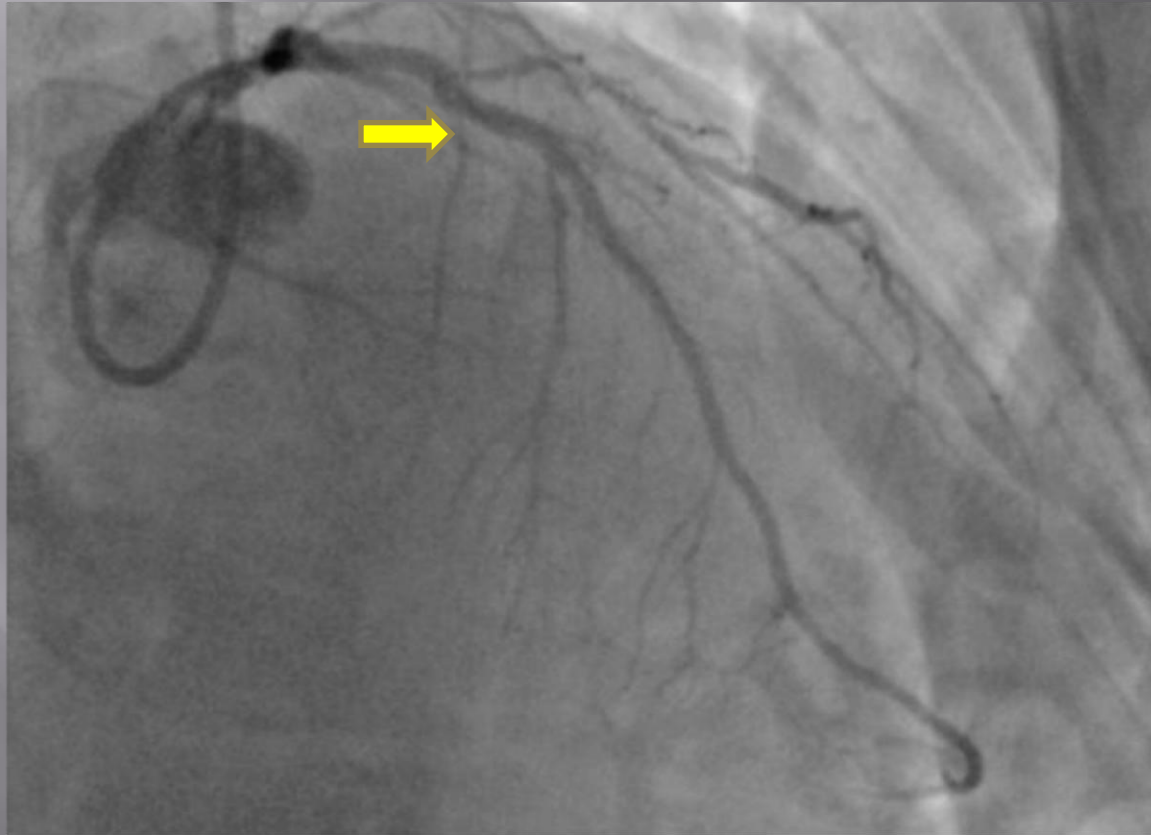
First pass perfusion sequence

- ❑ Large anterior and septal perfusion defect
- ❑ Small inferior perfusion defect

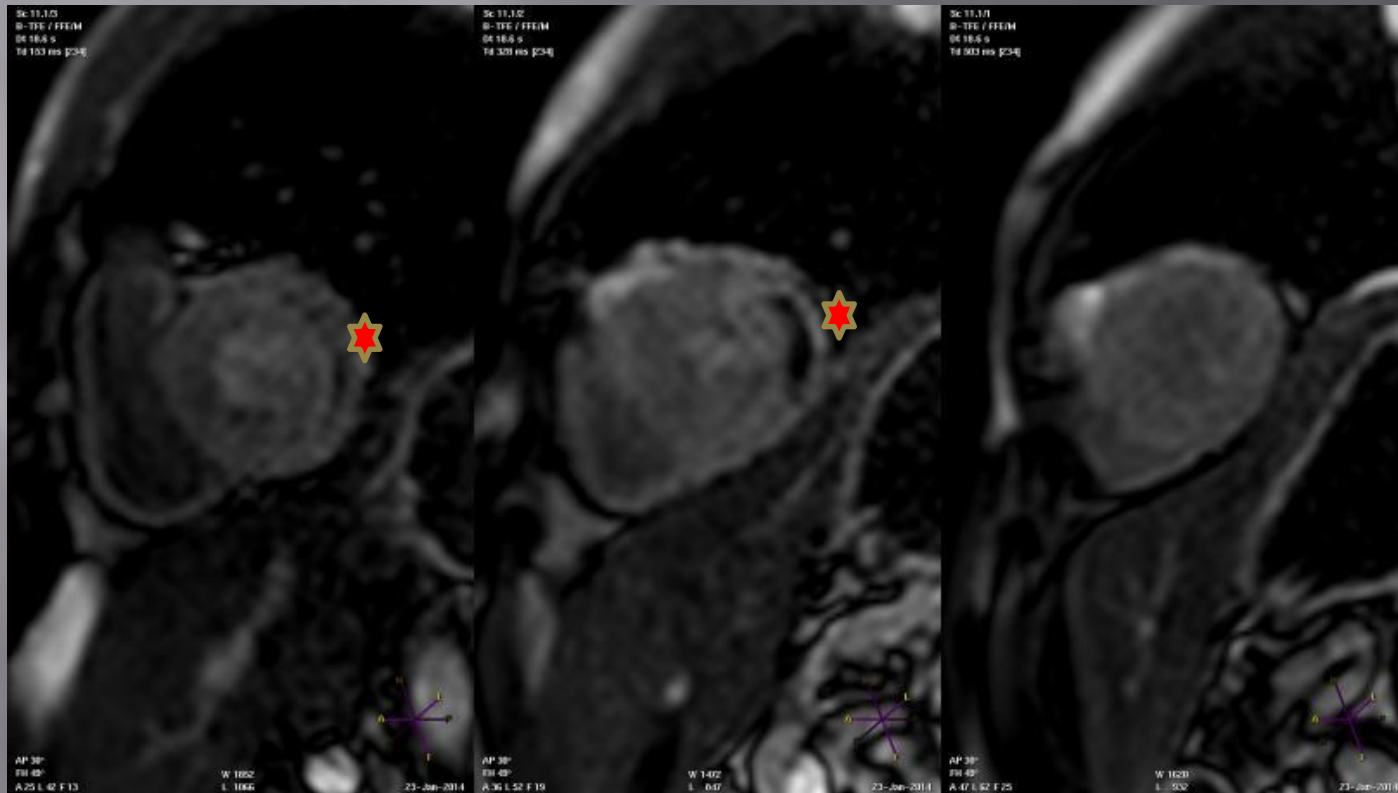


Matched Lateral Perfusion Defect

PCI to Proximal LAD



First pass perfusion - post PCI to LAD



To guide revascularisation strategy in multi-vessel CAD

- ▣ FAME Study – Fractional Flow Reserve (FFR) guided PCI is superior to PCI guided by angiography

- ▣ Perfusion CMR vs FFR:

Positive predictive value of 91%

Negative predictive value of 94%

Future?

CMR Vs FFR

- ▣ Added advantages of CMR:
 - Global Coronary Perfusion
 - LV function
 - Previous Infarction

MR-INFORM Study

Thank You