

Paradigm Shift to Functional Angioplasty

Mismatch Lesion

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Case

- **F/49**

- **Chief complaints**

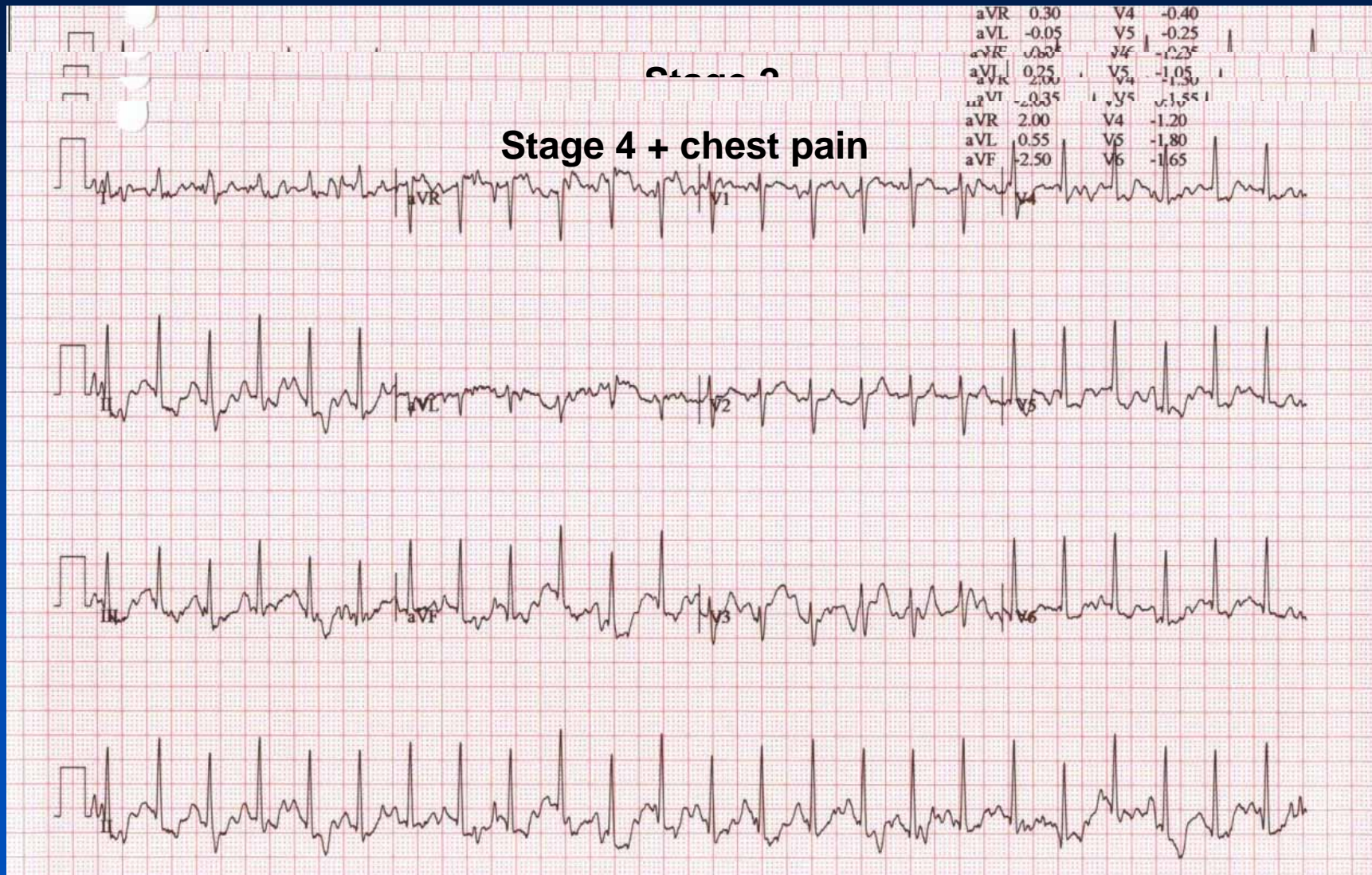
Efforting related chest discomfort from 4 months ago

- **Past medical history**

Hypertension

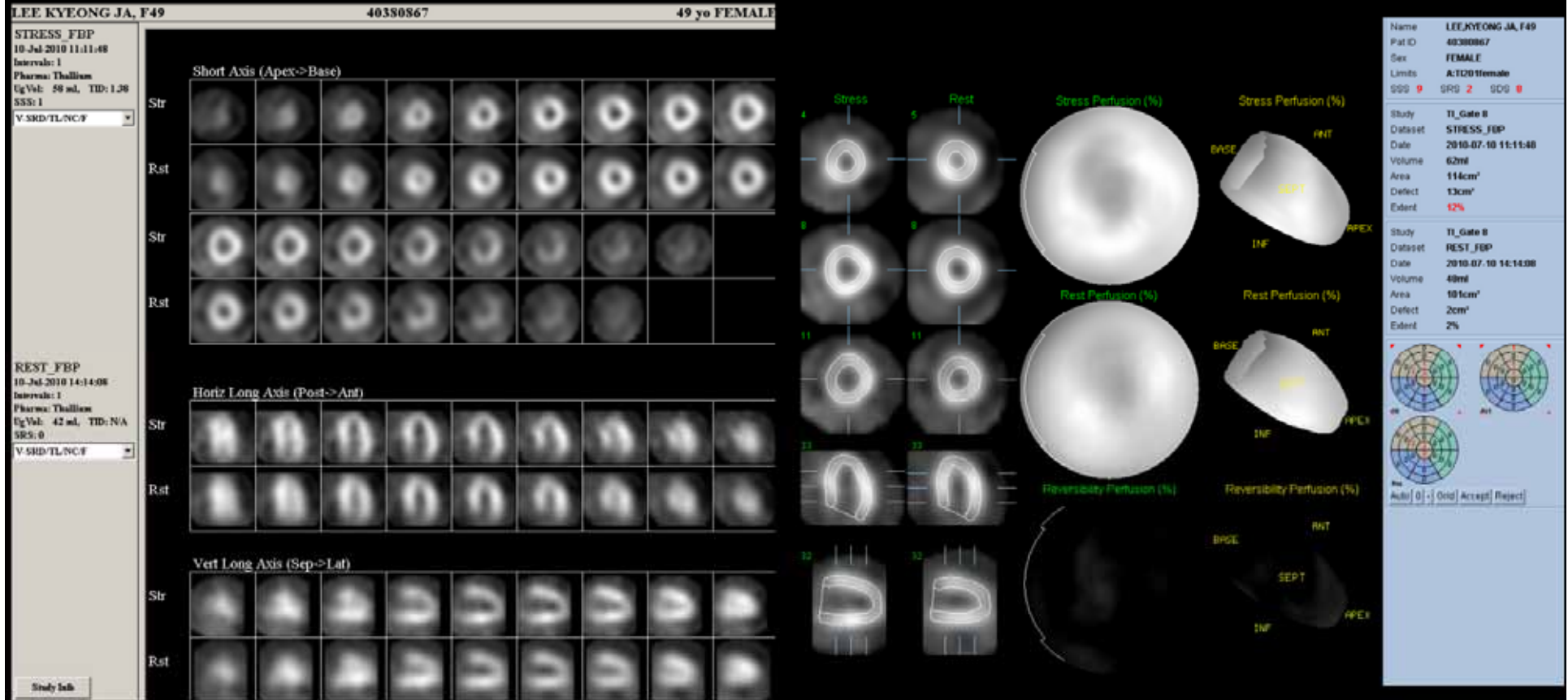
Hyperlipidemia

Treadmill test



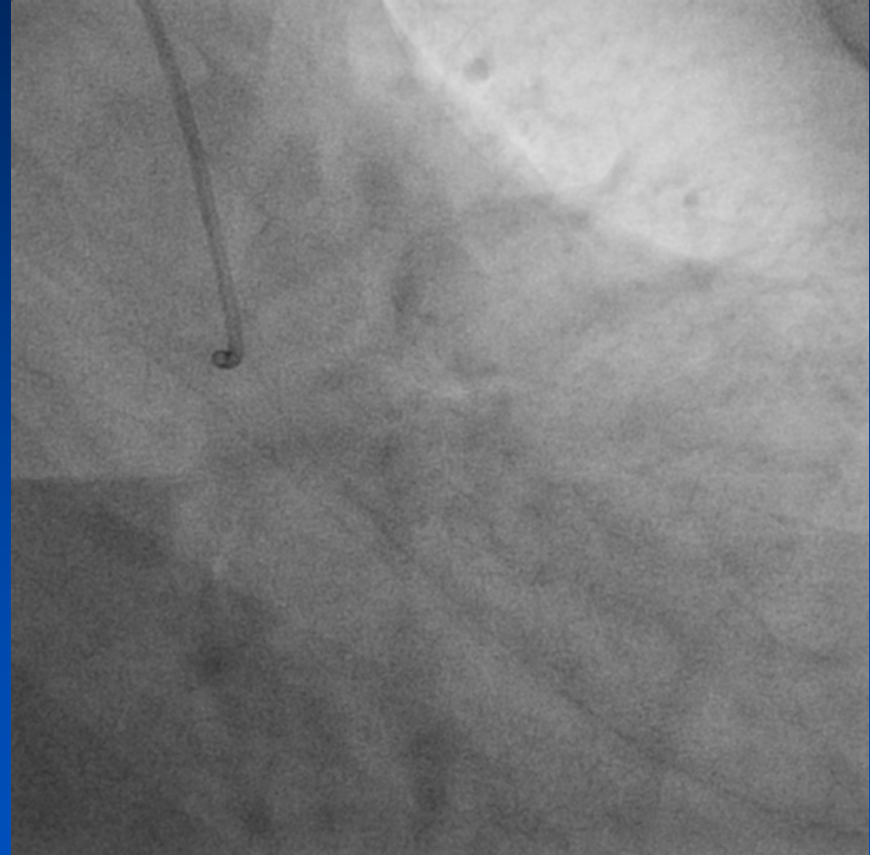
positive

Thallium Spect



Normal

Coronary Angiography

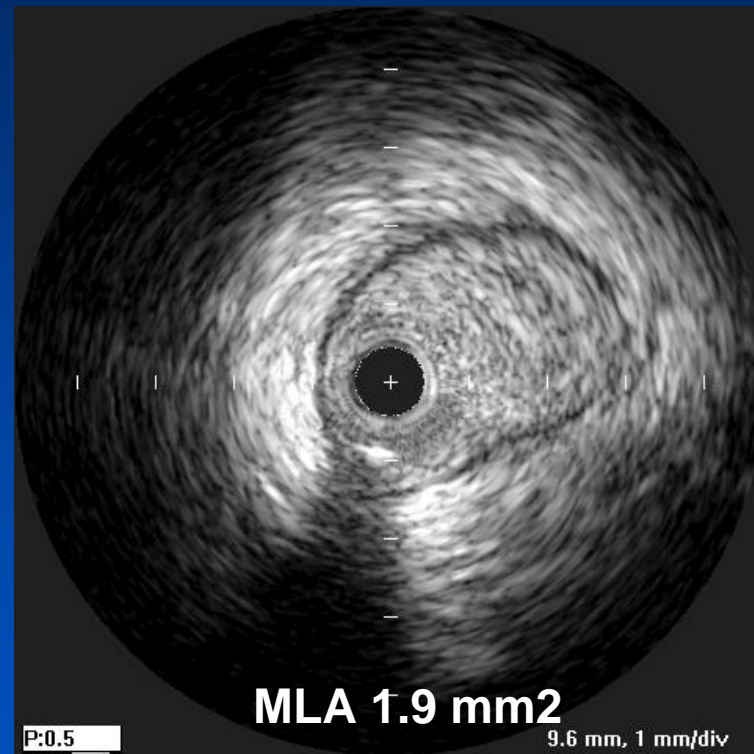


Coronary Angiography

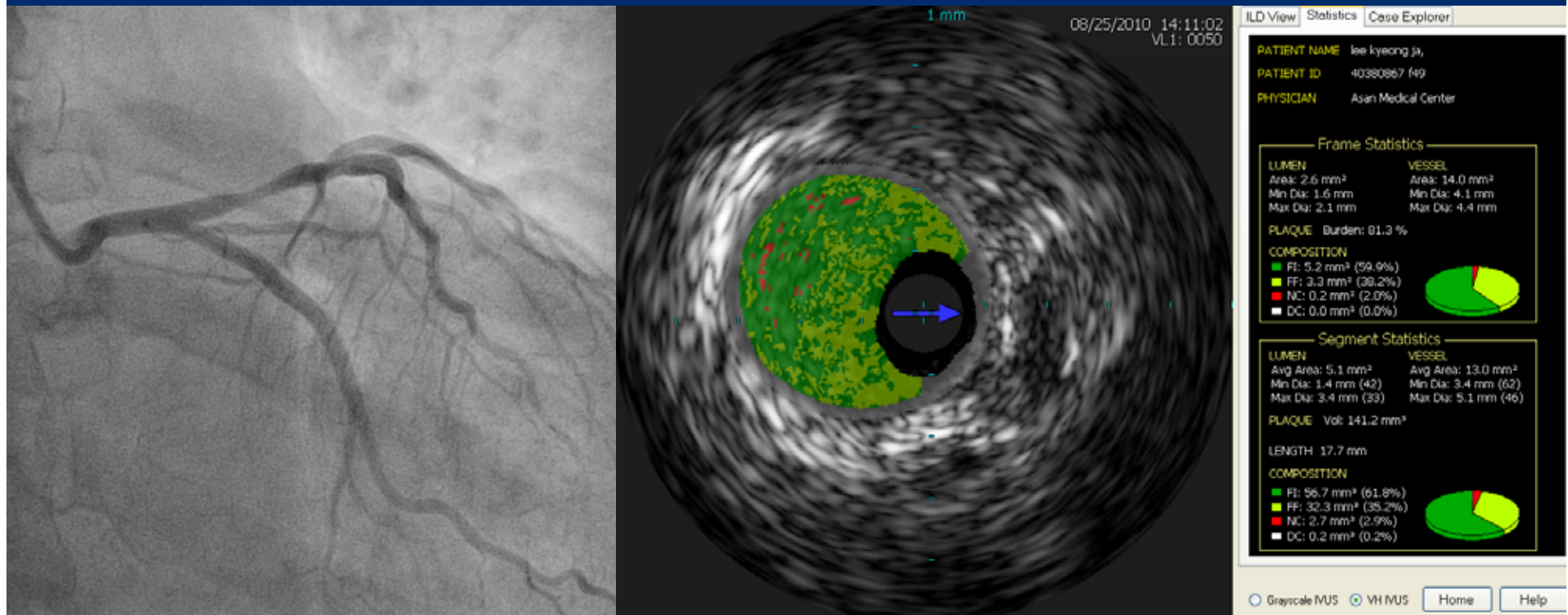


Intermediate stenosis in proximal LAD

IVUS (LAD)



Virtual histology (LAD)

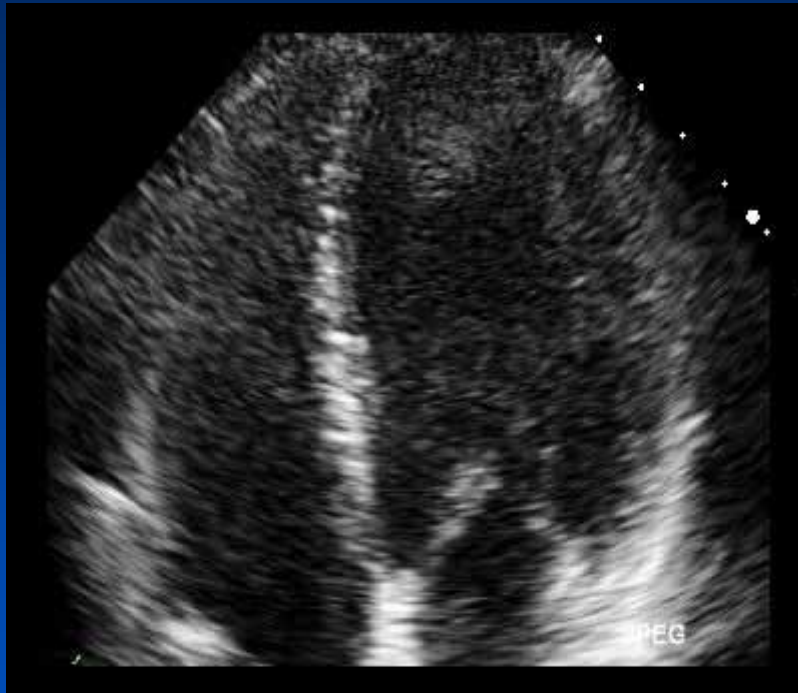


FFR

Intravenous (140ug/kg/min)



Stress EchoCG



Baseline



Adenosine 100ug/kg/min

Positive at LAD territory

What would you do ?



Typical angina (+)

Visual Estimation : **60%**

IVUS MLA : **1.9 mm²**

FFR : 0.61

Treadmill test : (+)

Stress EchoCG : LAD (+)

Thallium spect (-)

PCI !!

FFR & Non-invasive testing

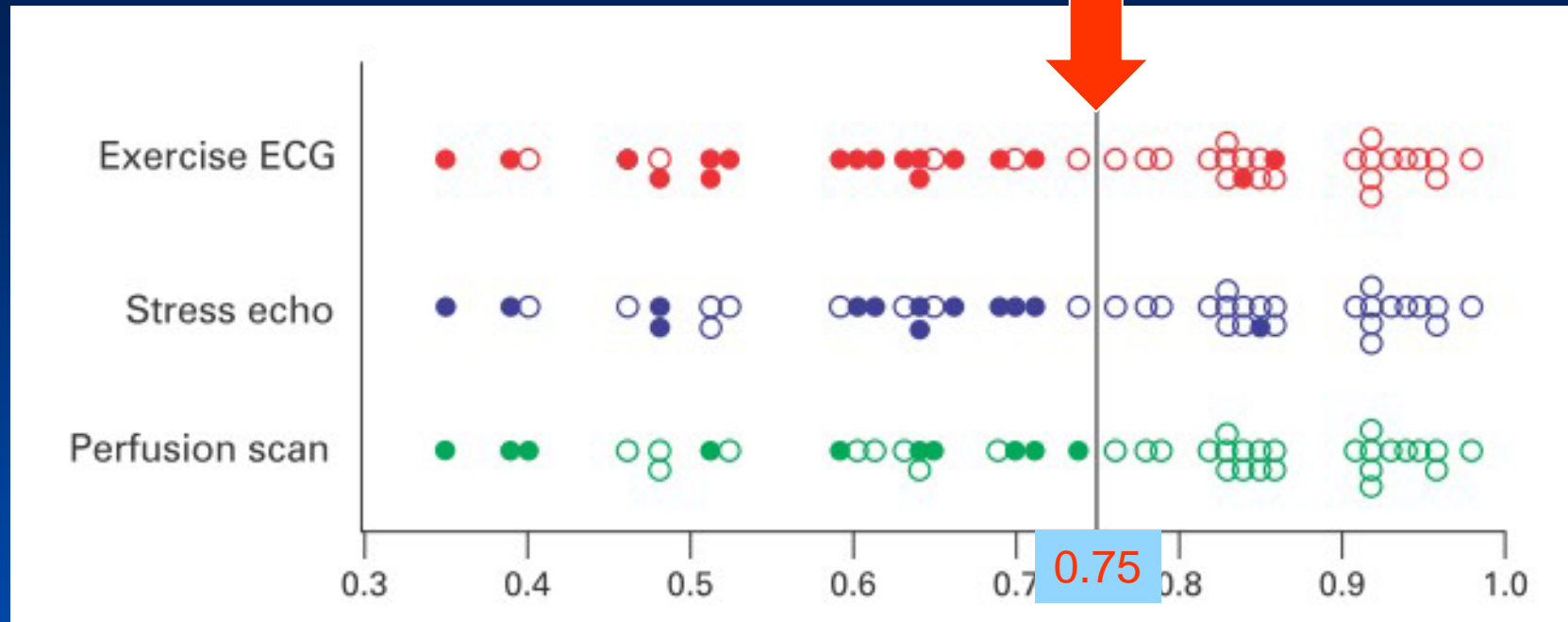
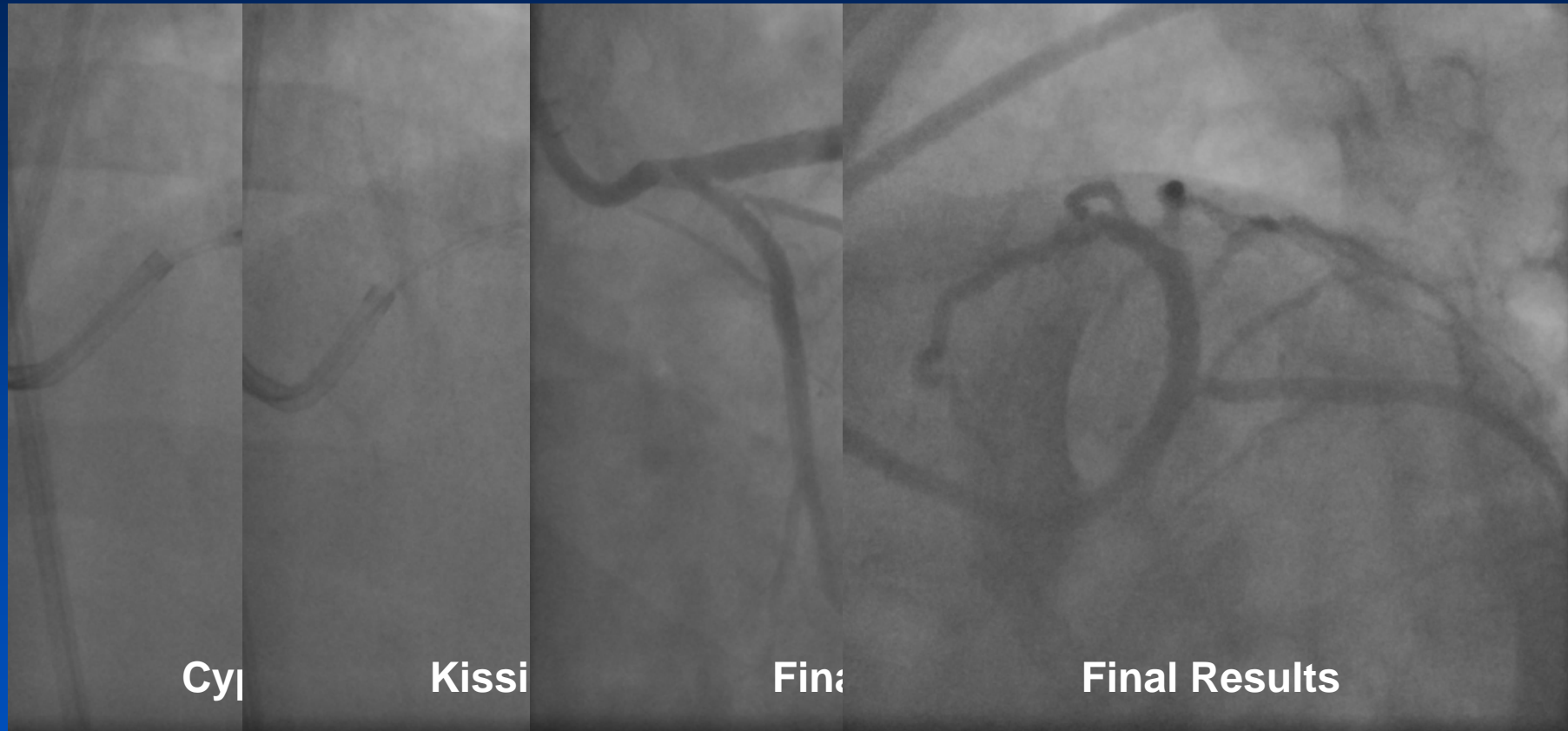


Figure 4 Plots of the fractional flow reserve (FFR) in 45 patients with an angiographically intermediate stenosis according to the results of non-invasive testing. The hollow circles represent negative tests. The black dots represent patients who were considered positive only if they were positive before revascularisation and became negative after revascularisation. Among the 21 patients with an FFR ≤ 0.75 , 18 showed concordant results of non-invasive tests (see Wijns *et al*³).

Sensitivity=88%
Specificity=100%
Positive predictive value=100%
Overall accuracy=93%

Final Results





Thank You !!

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