



# ACC Latin America Conference 2016

## **MEXICO CITY**

**OCTOBER 7 – 8, 2016**

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# Applying the Evidence in Stable Ischemic Heart Disease: Case Study

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# History

- 72 y/o male
- Type 2 diabetic on metformin & glimepiride
- Hypertension on losartan & nifedipine
- Smoker, 60 pack-years
- No past CV history

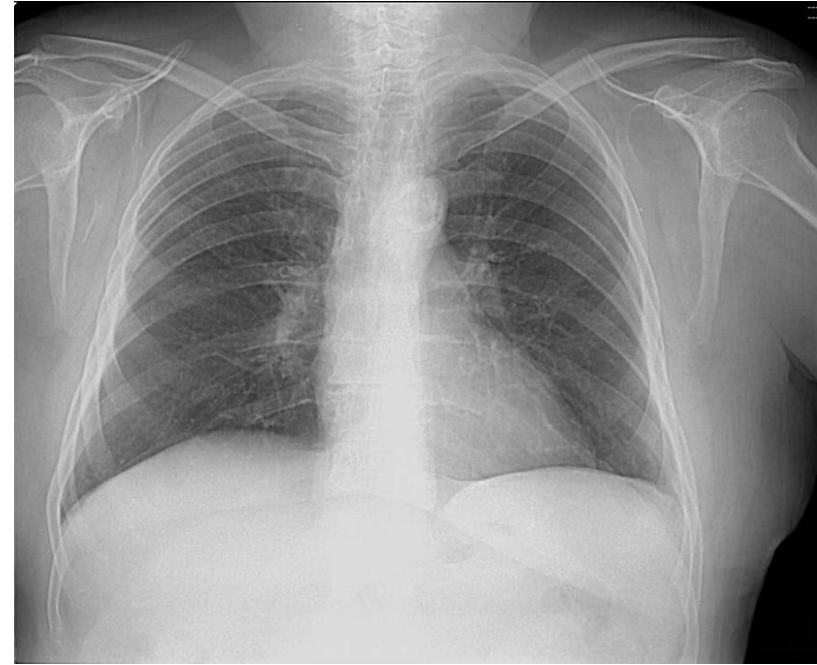
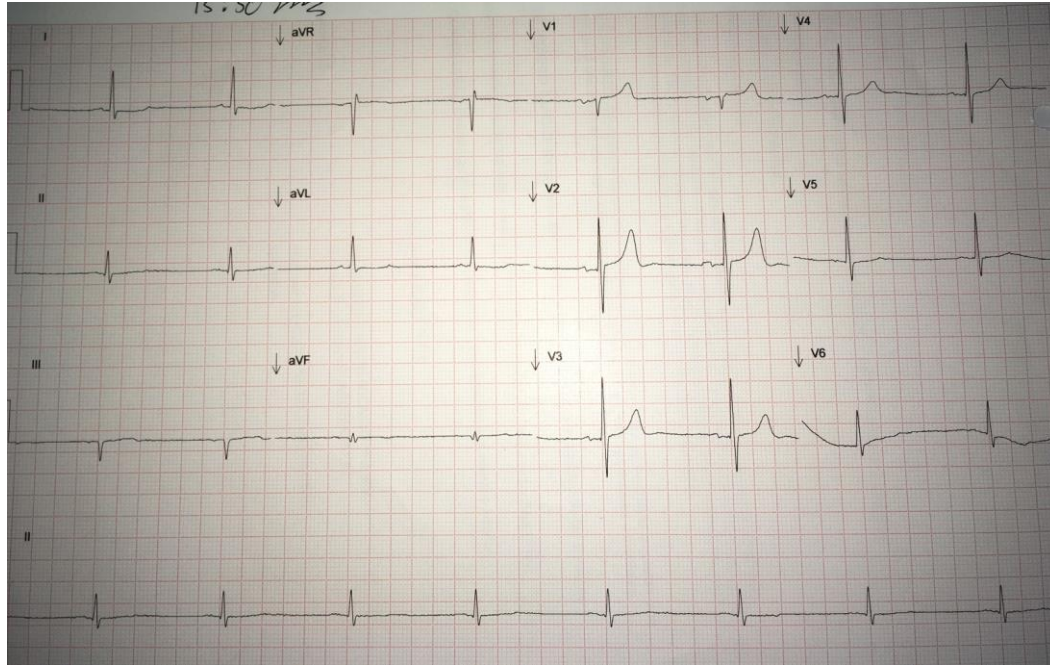


# Chief Complaint & Physical Exam

- 2 months history of exertional angina
- Class II CCS
- II/VI systolic mitral murmur
- II/VI systolic tricuspid murmur



# EKG & Chest X-ray



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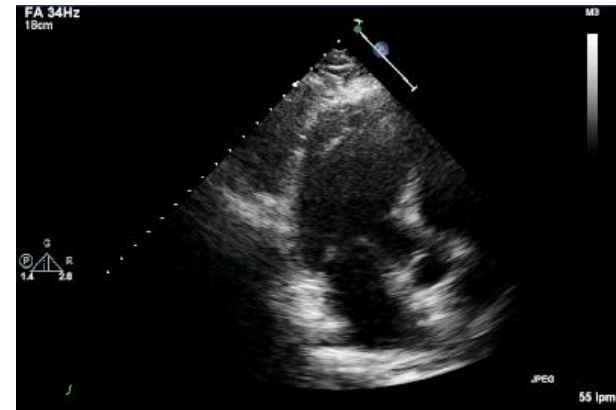
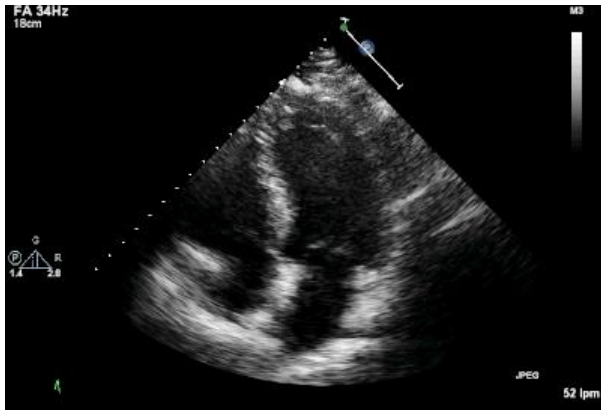
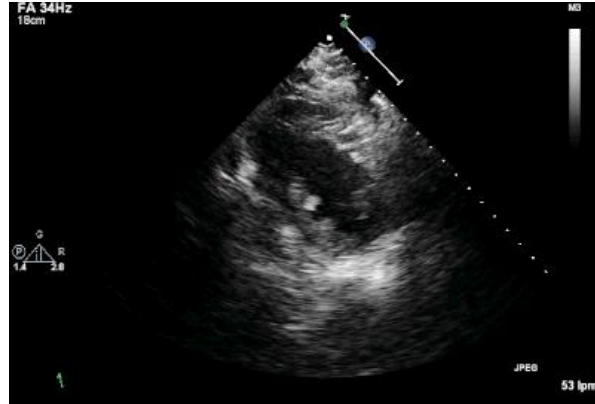
# Non Invasive Assessment

- Seen in outpatient clinic, was started on AAS, statin, beta-blocker
- Treadmill stress test stopped
- Rest echo and pharmacological stress nuclear MPI were performed



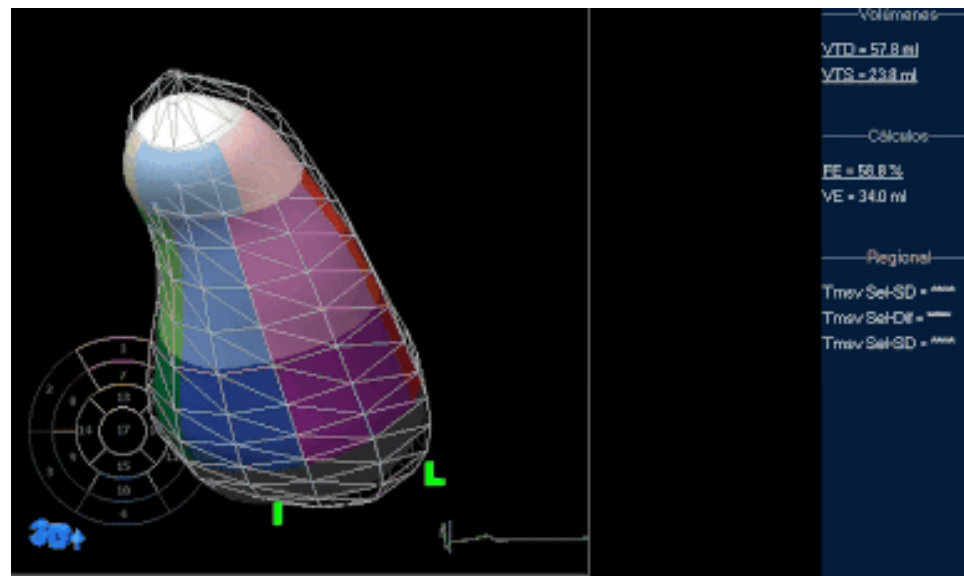
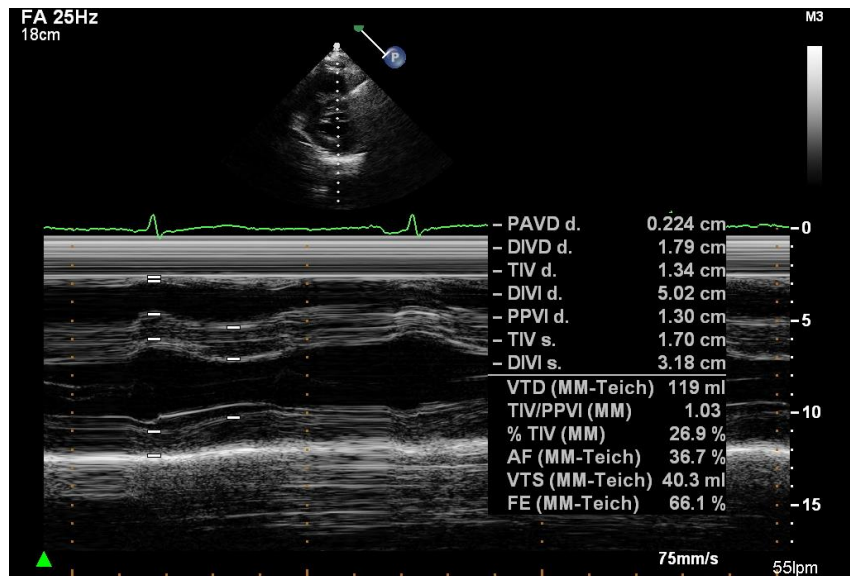


# Rest ECHO



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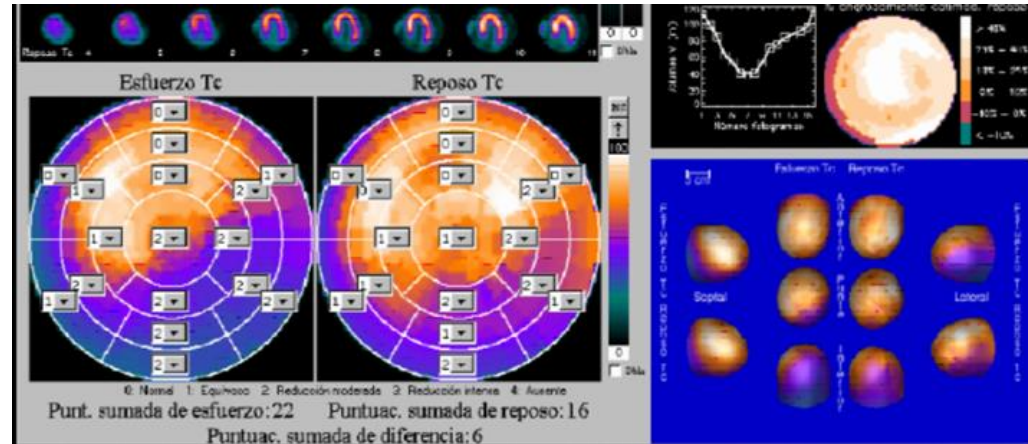
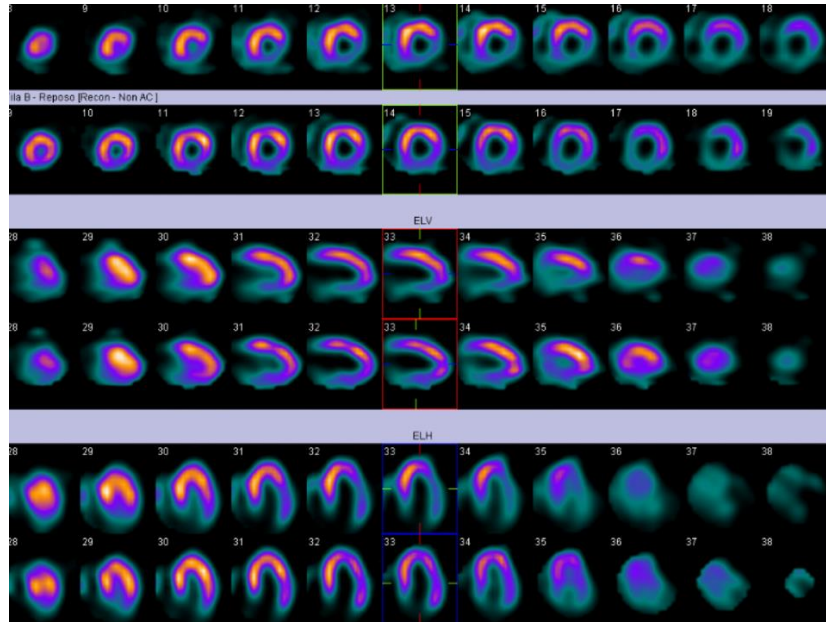
# Rest ECHO



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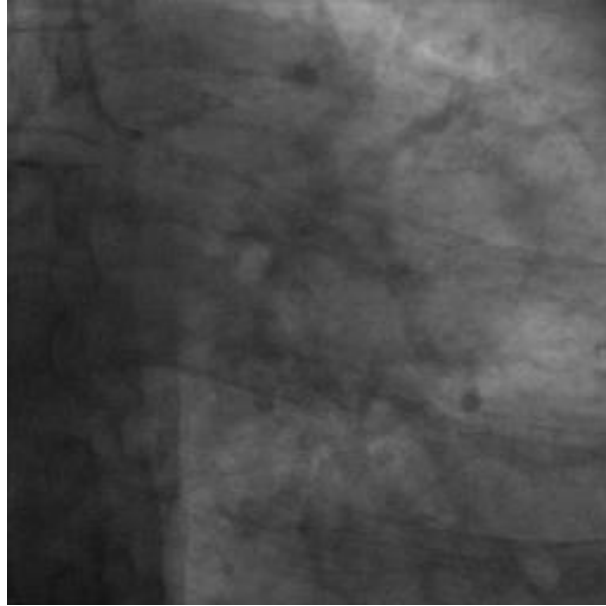
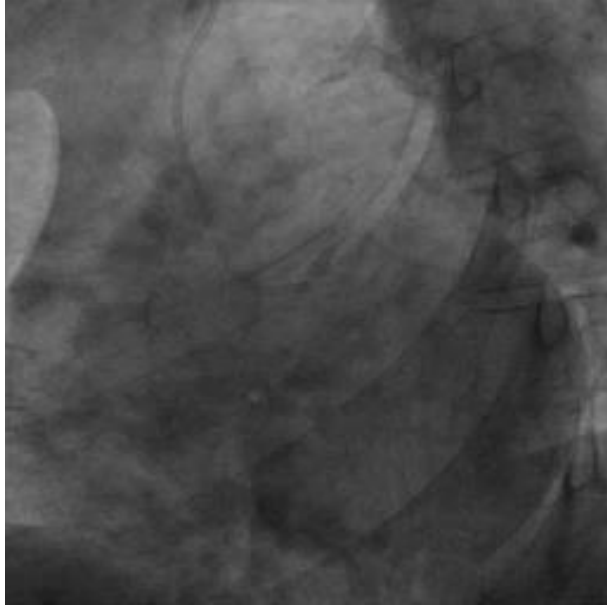


# Nuclear Stress MPI



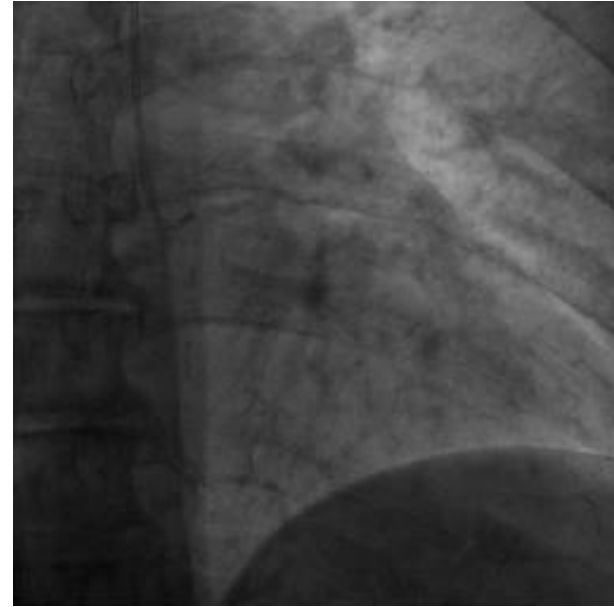
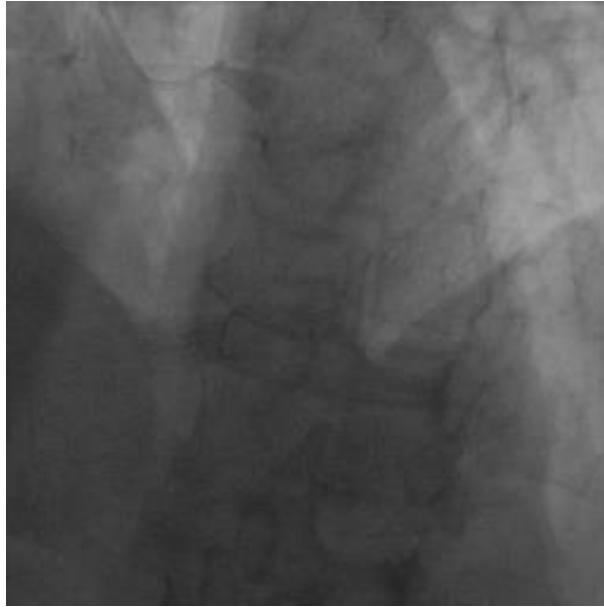
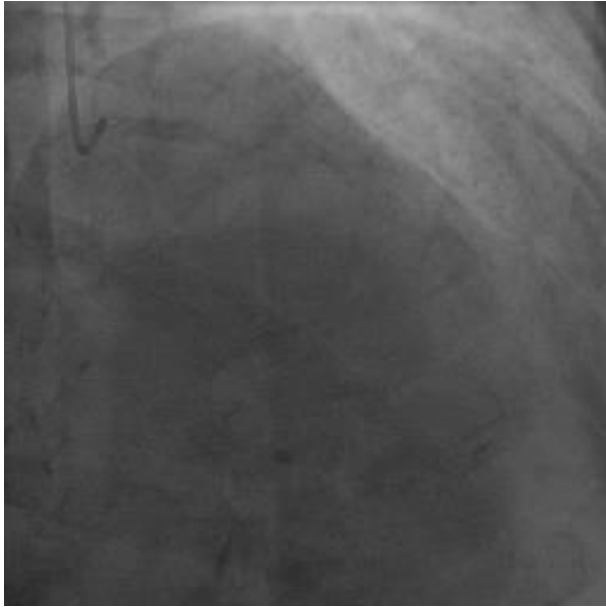
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# Coronary Angiography



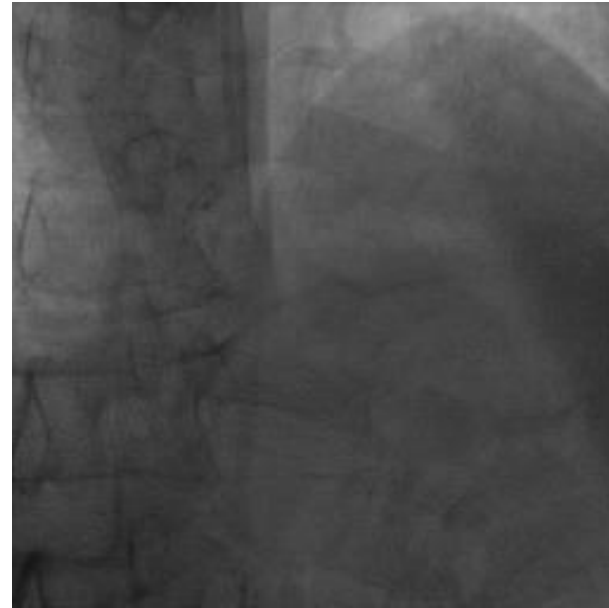
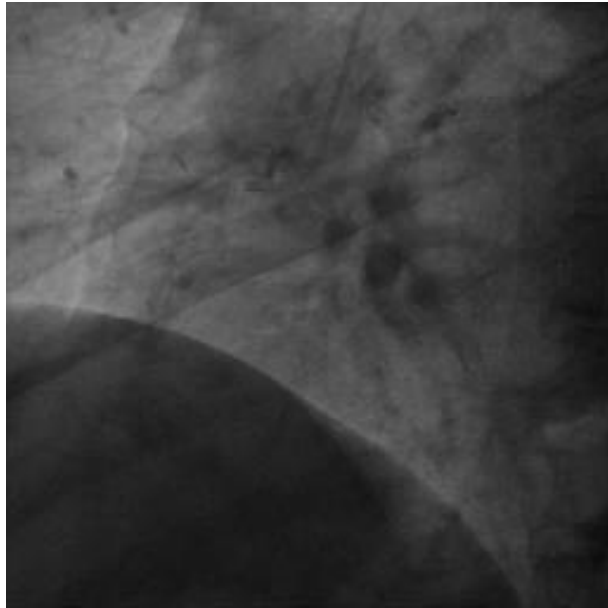
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# Coronary Angiography



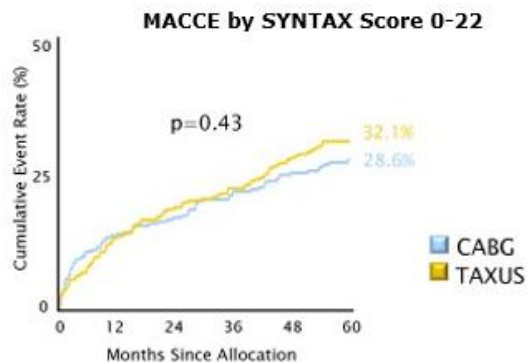
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# Coronary Angiography



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# What would be the best strategy?



The cumulative MACCE rate is displayed for the SYNTAX Trial group this score corresponds to.

## SYNTAX Score II

### PCI

SYNTAX Score II:	34.1
PCI 4 Year Mortality	9.5 %

### CABG

SYNTAX Score II:	38.5
CABG 4 Year Mortality	13.4 %

Treatment recommendation: CABG or  
PCI

## SYNTAX I Score 22



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# What would be the best strategy?

- EuroSCORE II 1,76%
- STS

Procedure: CAB Only

Risk of Mortality: 1.205%

Morbidity or Mortality: 13.527%

DSW Infection: 0.288%

Long Length of Stay: 4.357%

Permanent Stroke: 1.089%

Prolonged Ventilation: 6.795%

Renal Failure: 6.165%

Reoperation: 4.932%

Short Length of Stay: 49.275%





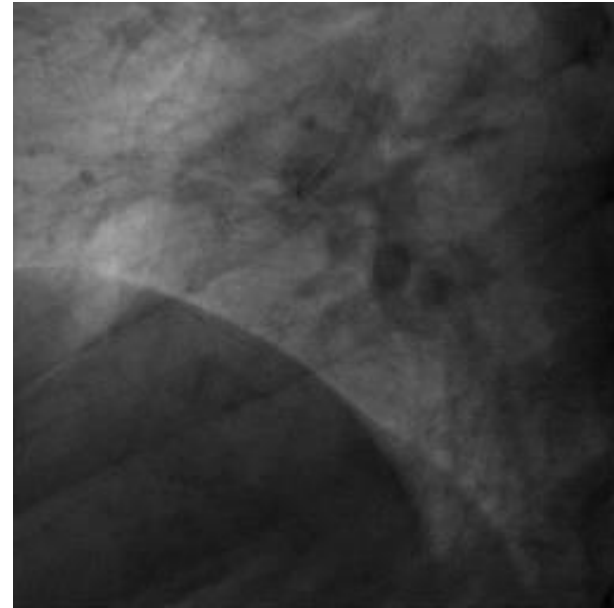
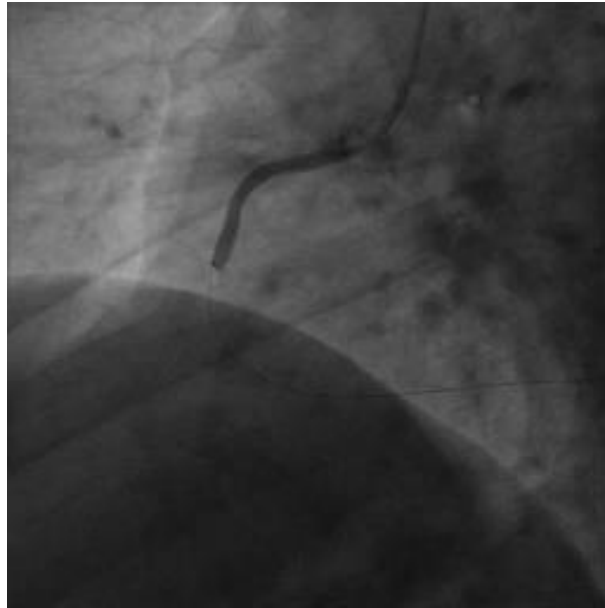
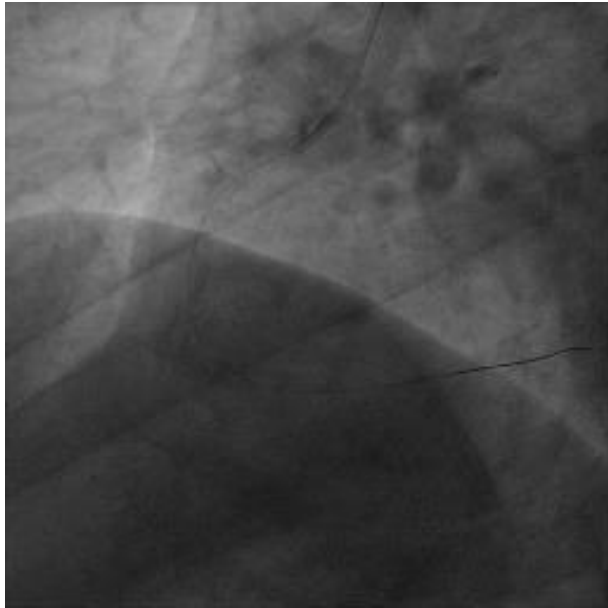
# What does the patient have to say?

- Heart team decision supported CABG
- Did not accept CABG
- PCI was performed



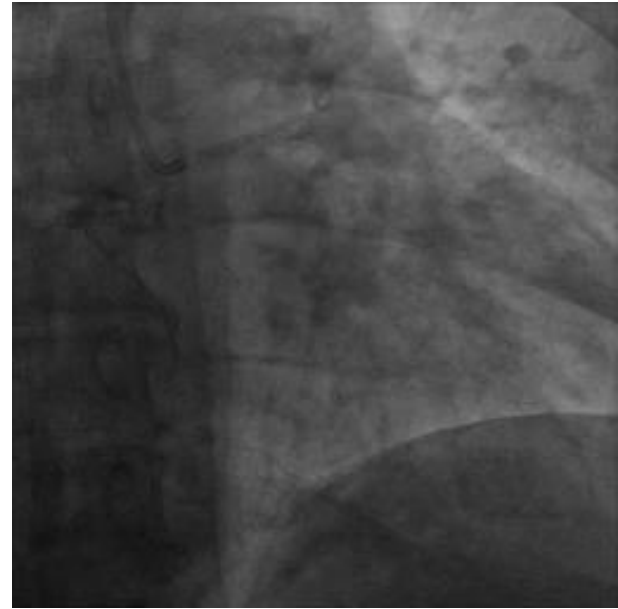
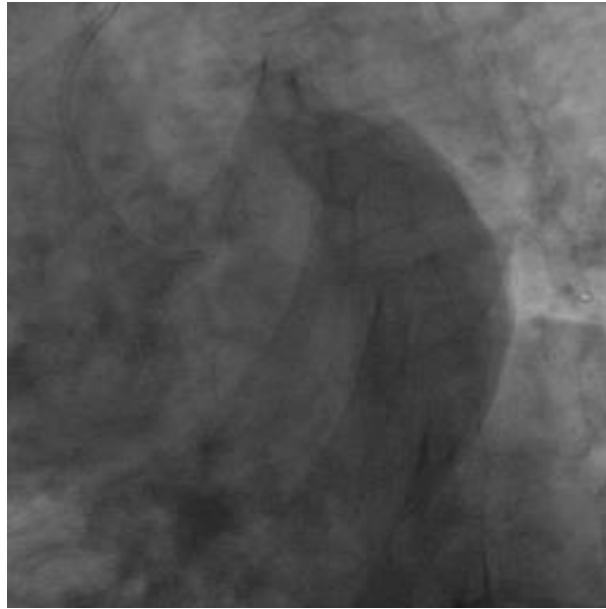
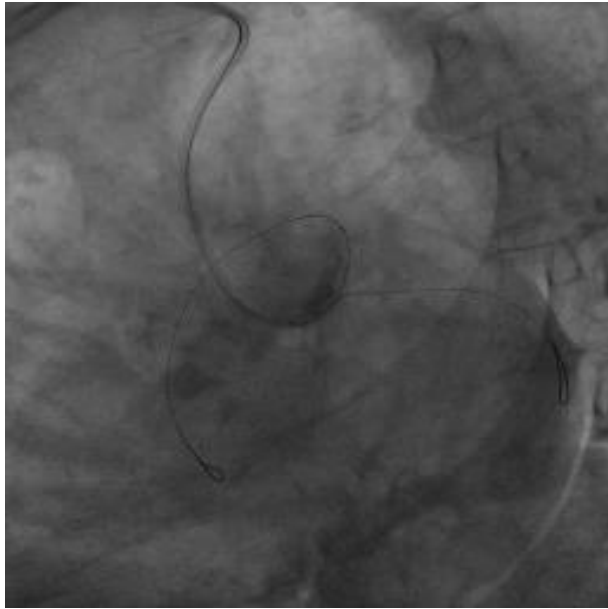
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# PCI



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# PCI



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# Outcomes

- Patient remained hospitalized for 48 hours
- No complications reported
- Discharged on DAPT
- Improvement on functional class
- No MACCE at 1 year follow up



# **2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease**

## **FOCUSED GUIDELINE UPDATE**

# **2014 ACC/AHA/AATS/PCNA/SCAI/STS Focused Update of the Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease**

*J Am Coll Cardiol 2012;60:e44-164*

*J Am Coll Cardiol 2014;64:1929-49*



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# Patient involvement

- Principle of autonomy
- Higher quality of care
- Choices about diagnostic and therapeutic options, shared decision making. Class I, LOE C

*J Am Coll Cardiol 2012;60:e44-164*



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# Diagnosis of SIHD

- Patient unable to exercise
- Pharmacological stress nuclear MPI / echo for intermediate to high pretest probability CAD, Class I LOE B

*J Am Coll Cardiol 2012;60:e44-164*



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# Diagnosis of SIHD

- No RCT data!
- Coronary angiography to define CAD in high risk patients and positive stress test, suitable for revascularization:
  - Class IIA, LOE C

*J Am Coll Cardiol 2014;64:1929–49*



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# CAD Revascularization

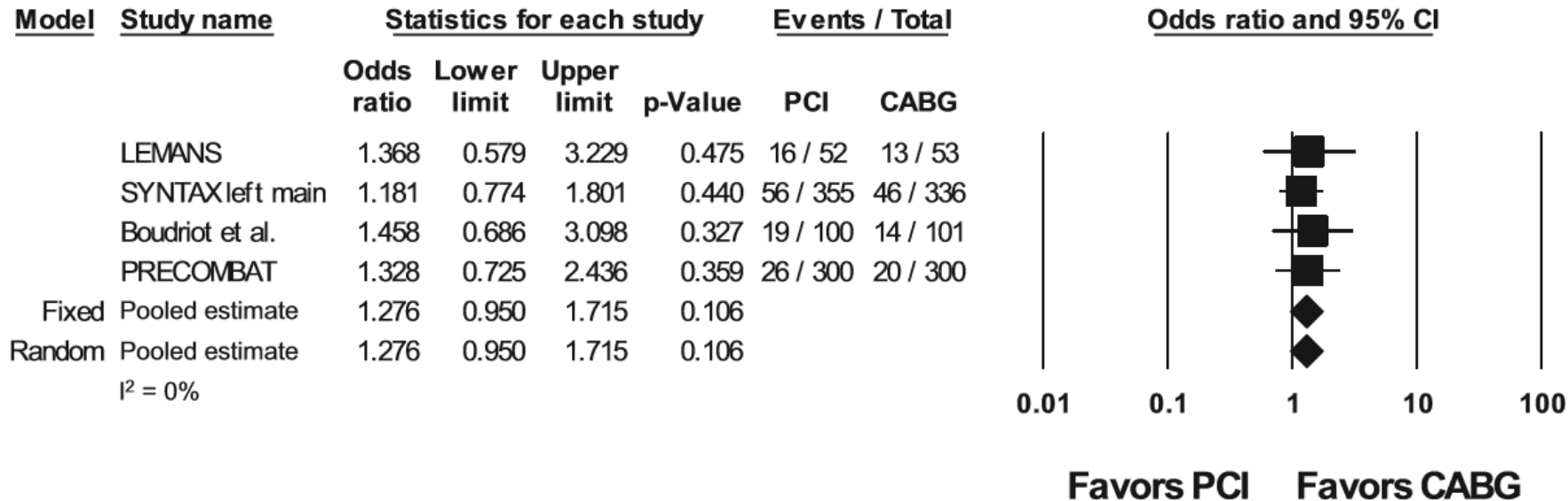
- 2012: CABG recommended in multivessel CAD & diabetes, LIMA graft to LAD. Class IIA, LOE B
  - 2014: Changed to Class I
- 2014: Heart team approach in diabetes and complex CAD. Class I, LOE C

*J Am Coll Cardiol 2012;60:e44-164*  
*J Am Coll Cardiol 2014;64:1929-49*



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# PCI or CABG: MACCE

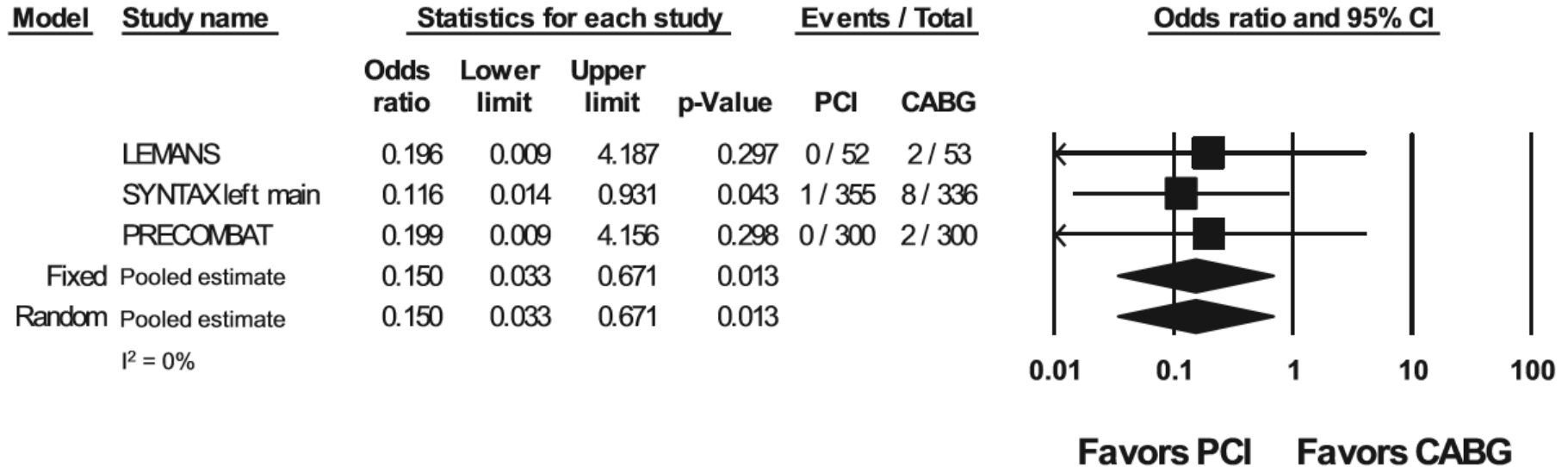


*J Am Coll Cardiol 2011;58:1426-32*



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# PCI or CABG: Stroke

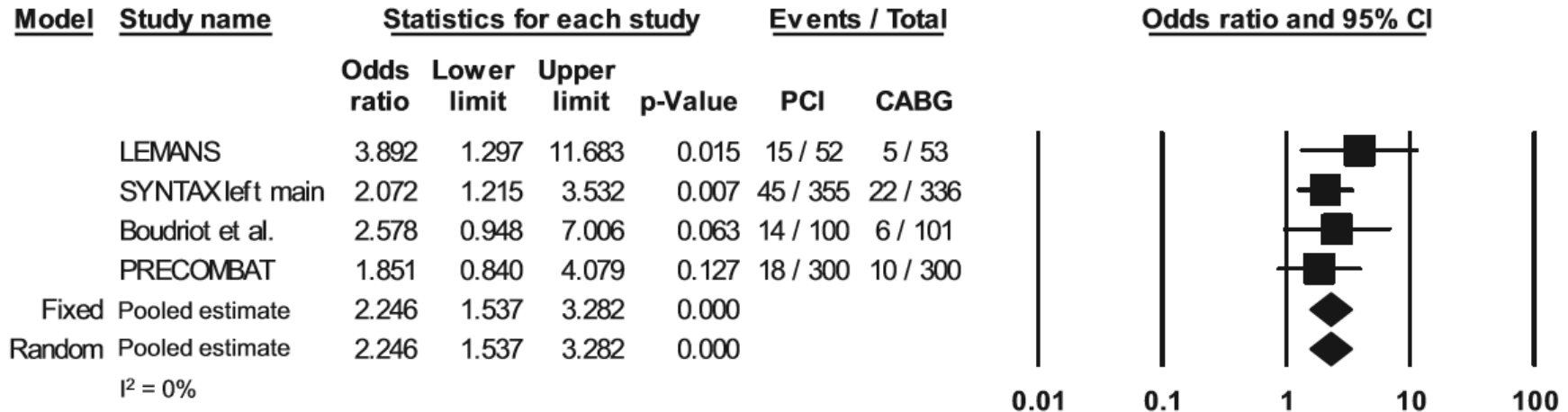


*J Am Coll Cardiol 2011;58:1426-32*



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# PCI or CABG: Repeat Revascularization



**Favors PCI    Favors CABG**

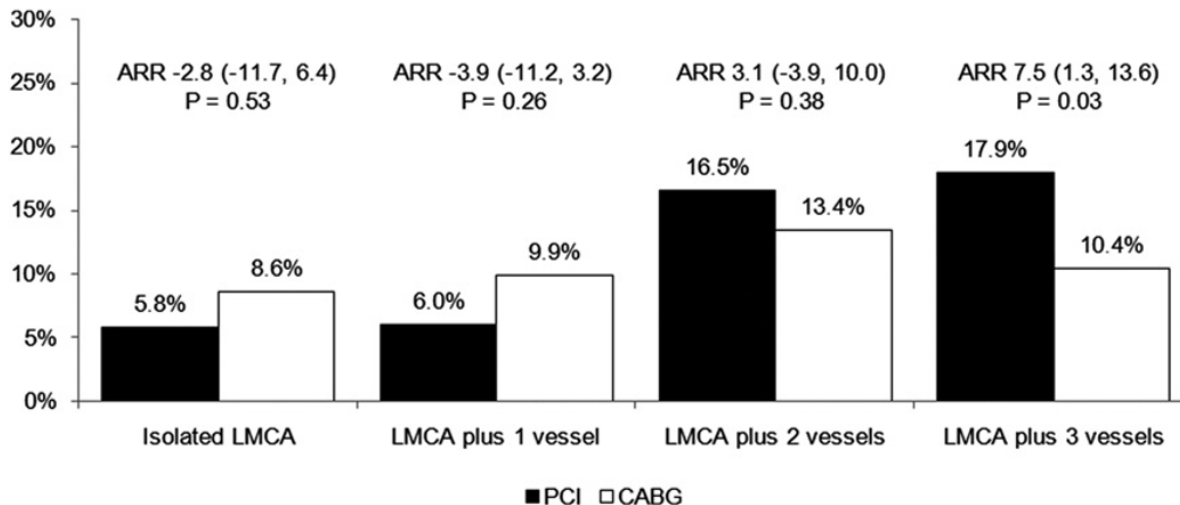
*J Am Coll Cardiol 2011;58:1426-32*



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# PCI or CABG: Outcomes



**Differences in 1-Year MACCE Between PCI and CABG in the Pooled Analysis of the SYNTAX Left Main and PRECOMBAT Studies After Stratification by Burden of Coronary Artery Disease**

*J Am Coll Cardiol 2011;58:1426-32*



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# PCI VS CABG: Key Teaching Point

- No significant differences for 1 year MACCE
- PCI higher rates of TVR
- PCI lower rates of CVA



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# SIHD in Diabetic Patients

- CABG improves survival in DM
- Lower all cause mortality
- All should receive GDMT
- Consider revascularization



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# Thank you for your attention!



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