

Dallas
CARDIOVASCULAR
INNOVATIONS 2015



Case Presentation

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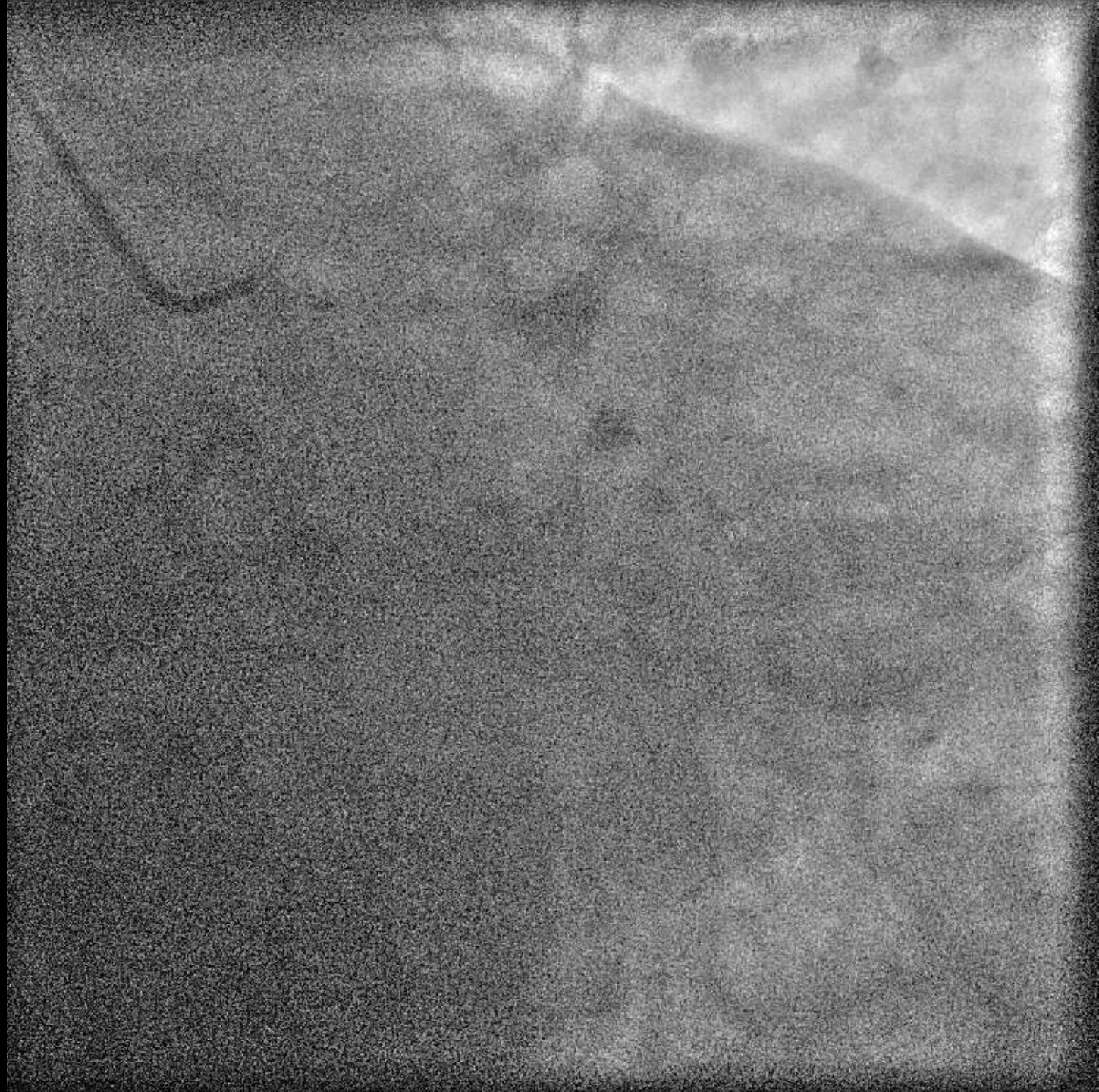
Disclosures

- None

Case

- 56 yo male with past history of DM2 (on insulin), HTN, HLD presenting with complaints of worsening shortness of breath on exertion over the past 3 months.
- BP 118/67 | HR 79 bpm
- On cardiopudent medications including Carvedilol and Isordil MN
- TTE with preserved LVEF 55%
- Exercise MPI study with large reversible moderately severe anterior and lateral perfusion defect







What is the next step?

SYNTAX Score

The Syntax Score Algorithm

1. Arterial dominance
2. Arterial segments involved per lesion

Lesion characteristics

3. Total occlusion

- i. Number of segments involved
- ii. Age of the total occlusion (>3 months)
- iii. Blunt stump
- iv. Bridging collaterals
- v. First segment beyond the occlusion visible by antegrade or retrograde filling
- vi. Side branch involvement

4. Trifurcation

- i. Number of segments diseased

5. Bifurcation

- i. Medina type
- ii. Angulation between the distal main vessel and the side branch <70°

6. Aorto-ostial lesion

7. Severe tortuosity

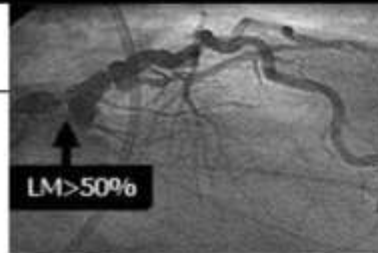
8. Length >20 mm

9. Heavy calcification

10. Thrombus

11. Diffuse disease/small vessels

- i. Number of segments with diffuse disease/small vessels



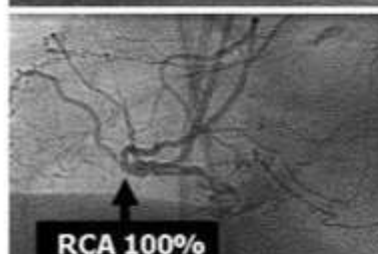
Lesion 1
 Segment 5: 5x2 10
 + Bifurcation type A 1
 + Heavy calcification 2
 Lesion 1 score: 13



Lesion 2
 Segment 6: 3.5x2 7
 + Bifurcation type A 1
 + Angulation < 70 1
 + Heavy calcification 2
 Lesion 2 score: 11



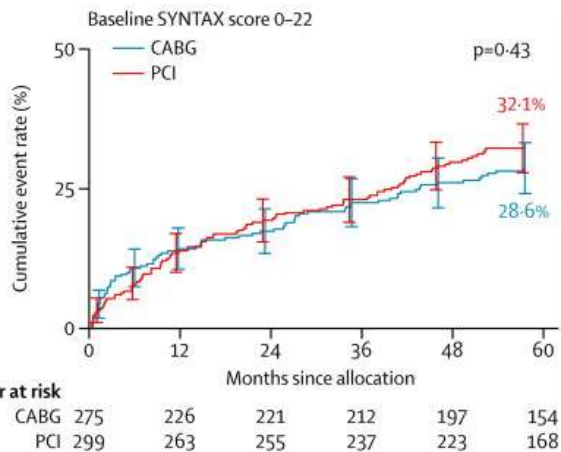
Lesion 3
 Segment 11: 1.5x5 7.5
 Age T.O. is unknown 1
 + Blunt stump 1
 + Side branch 1
 + Heavy calcification 2
 Lesion 3 Score: 12.5



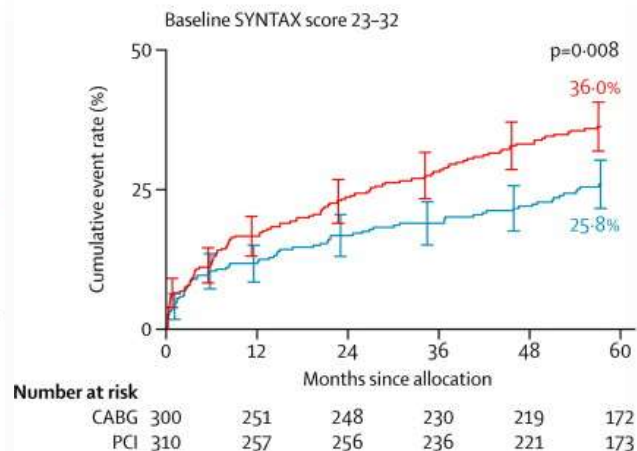
Lesion 4
 Segment 1: 1x5 5
 Age T.O. is unknown 1
 + Blunt stump 1
 + Side branch 1
 First segment visualized by contrast 4
 + Tortuosity 2
 + Heavy calcification 2
 Lesion 4 Score: 14

SYNTAX Score

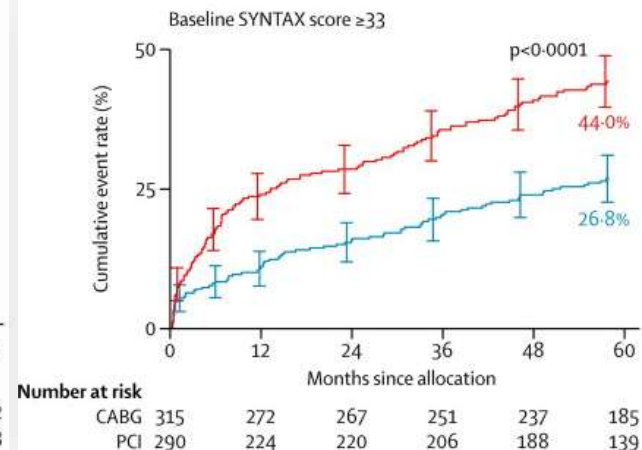
**Low Risk
 0-22**



**Medium Risk
 23-32**



**High Risk
 ≥ 33**



SYNTAX SCORE **18**

SYNTAX II

CABG – 4 year mortality ~ 3%

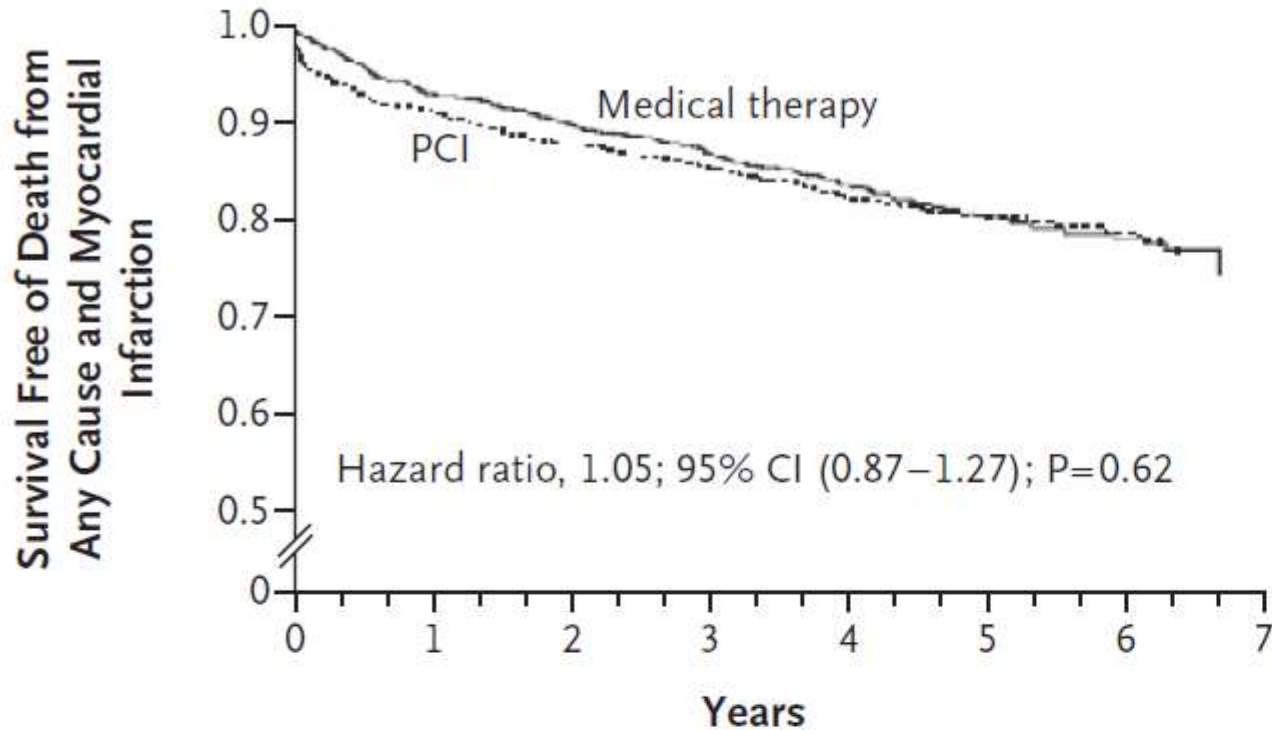
PCI – 4 year mortality ~ 3%

**Medical therapy or
Revascularization?**

COURAGE:

No difference in outcome between PCI vs Med Tx

A



No. at Risk

Medical therapy	1138	1017	959	834	638	408	192	30
PCI	1149	1013	952	833	637	417	200	35

B

No. at Risk

Medical th								
PCI								

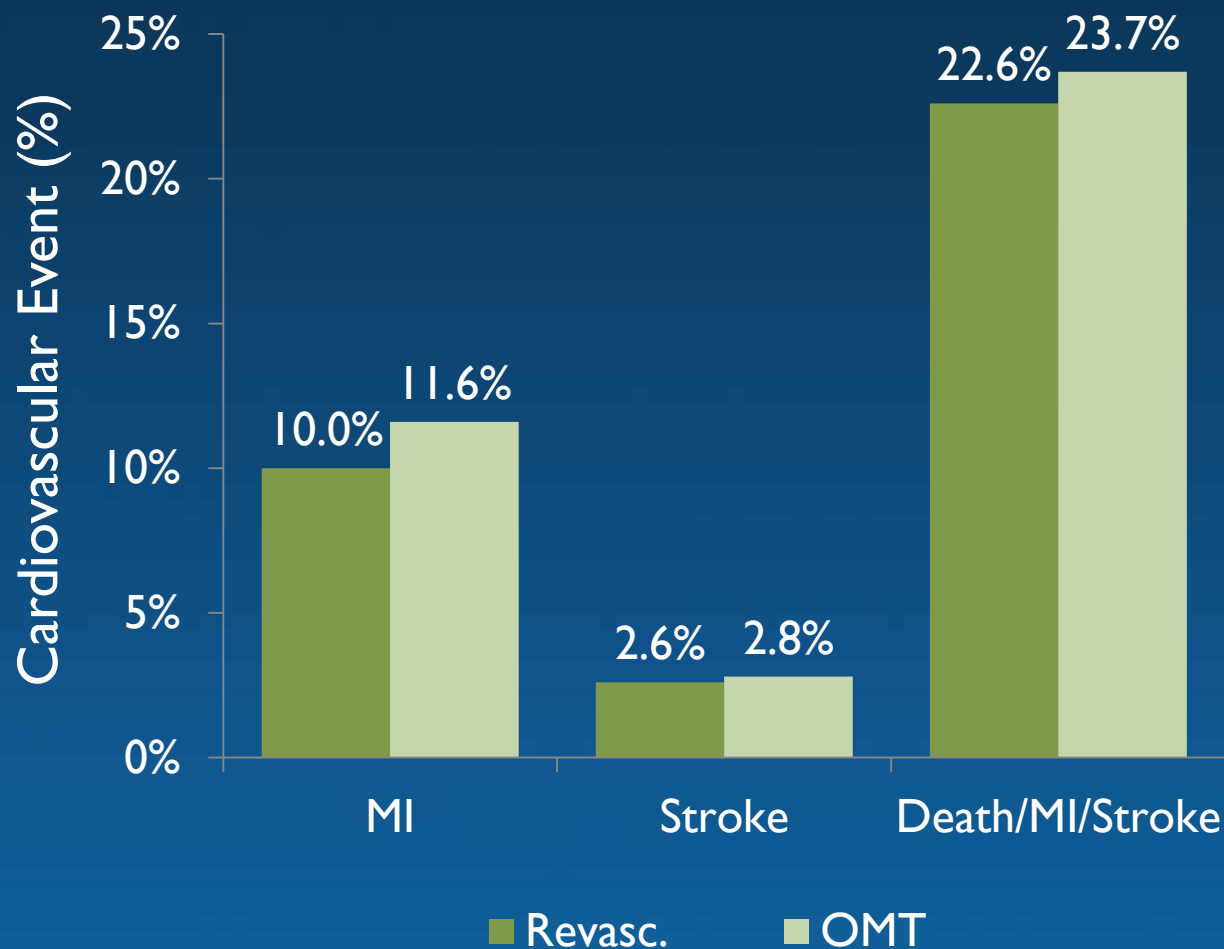
C

D

How About Diabetic Patients?

BARI-2D:

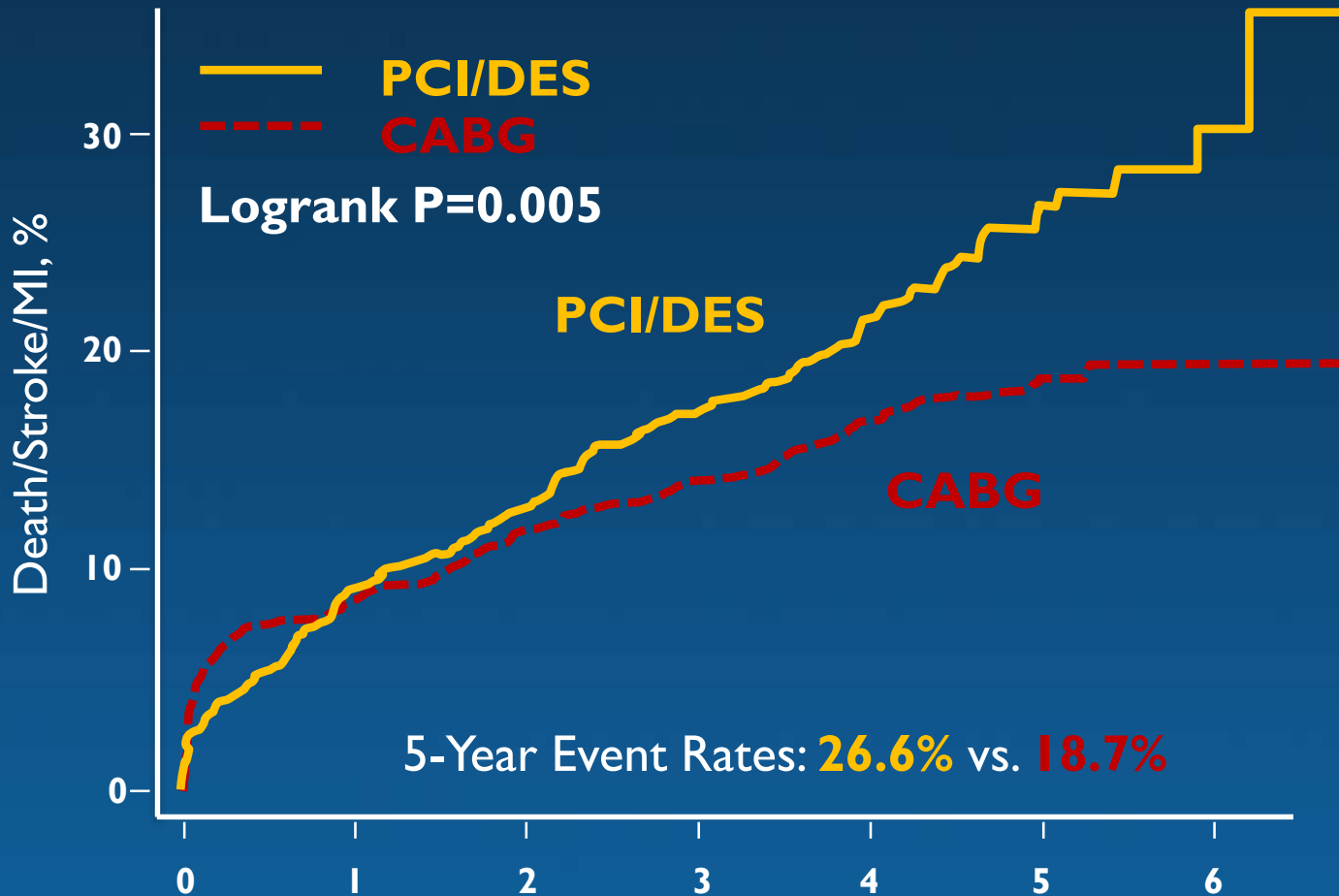
CV outcome Similar Between OMT and Revascularization



Isn't CABG Superior to PCI?

FREEDOM:

CABG is a Superior Strategy in Patients with Diabetes and MVD



Conclusion

- For patients with stable angina and low symptom burden, medical therapy would be an appropriate initial strategy.
- For medically refractory symptoms revascularization is recommended.
 - SYNTAX score for selection of revascularization
 - Low: PCI or CABG
 - Intermediate/high: CABG preferred