

Fractional Flow Reserve (FFR) Should Not Be Done In All Intermediate Lesions

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Conference 2016

Disclosure

I, Jacqueline Tamis Holland, Have nothing to disclose



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When is it Not Useful?

- When clinical picture otherwise supports functionally significant lesion
- When other anatomic indices suggest a significant lesion
- Acute Infarction
- When there are limitations in the interpretation of the FFR results



ACC-AHA Guidelines for Percutaneous Coronary Intervention



FFR is reasonable to assess angiographic intermediate coronary lesions (50% to 70% diameter stenosis) and can be useful in guiding revascularization decisions in patients with SIHD.



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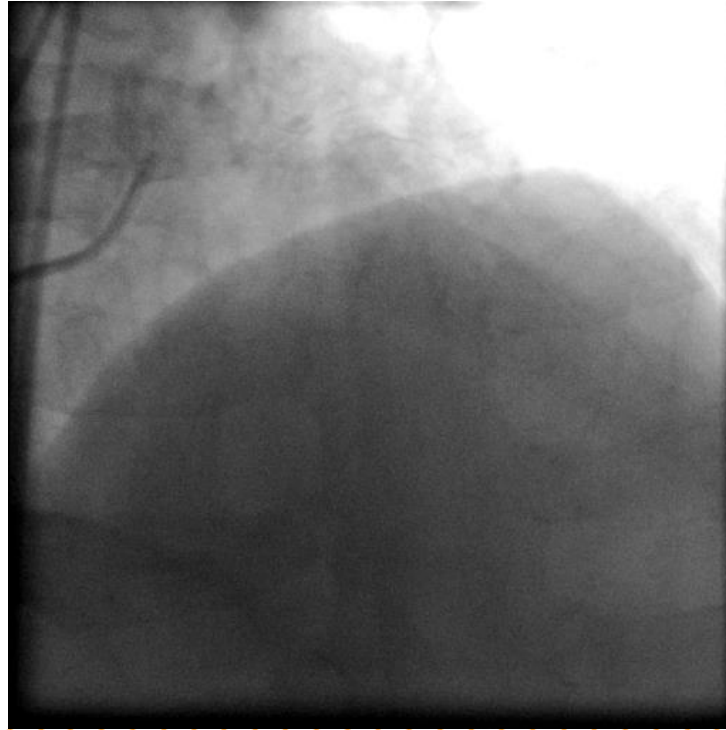


Case Example

- 63 year old male with hypertension, diabetes and a long history of smoking
- Presents with a 3 week history of throat and chest tightness occurring when walking up the hill on the way to the bus stop.
- Treated with Aspirin and Metoprolol XL 50 mg, and Imdur.
- Stress test:
 - Exercised for 5 minutes
 - Typical chest tightness at 4 minutes persisting into recovery.
 - 2 mm of ST depressions in leads V4-V6.
 - Nuclear perfusion images: Moderate ischemia of the anterior wall



Coronary Angiography

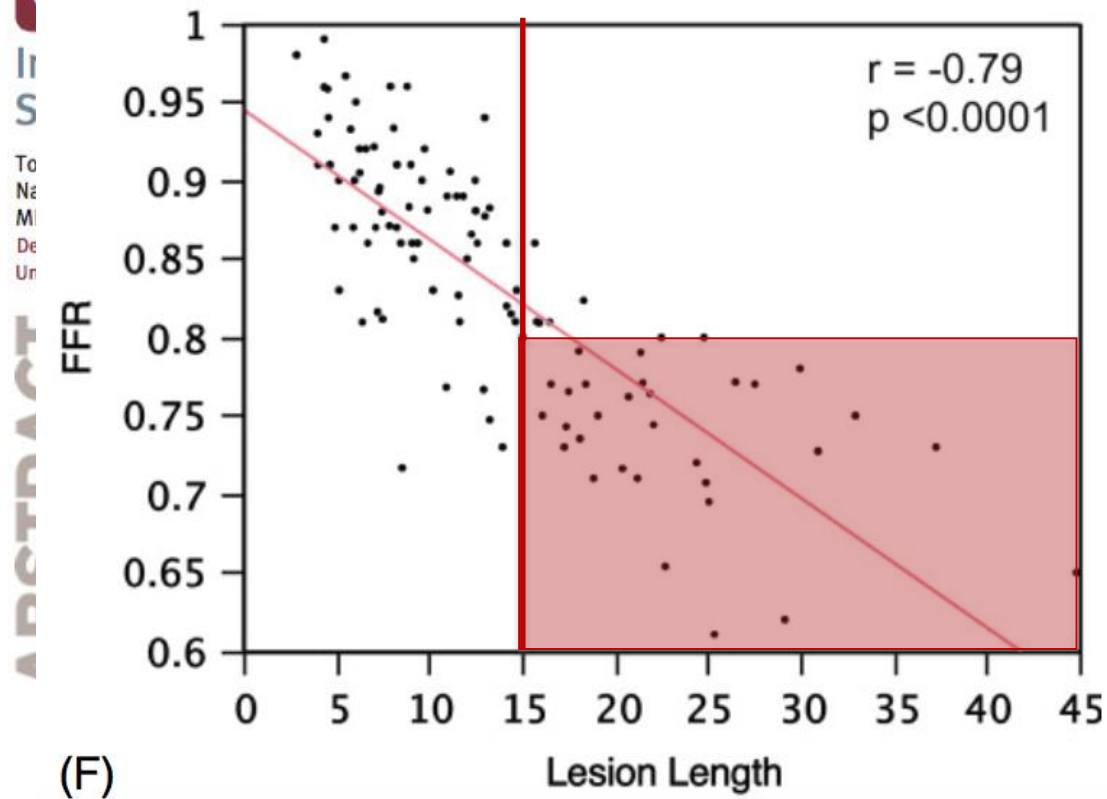


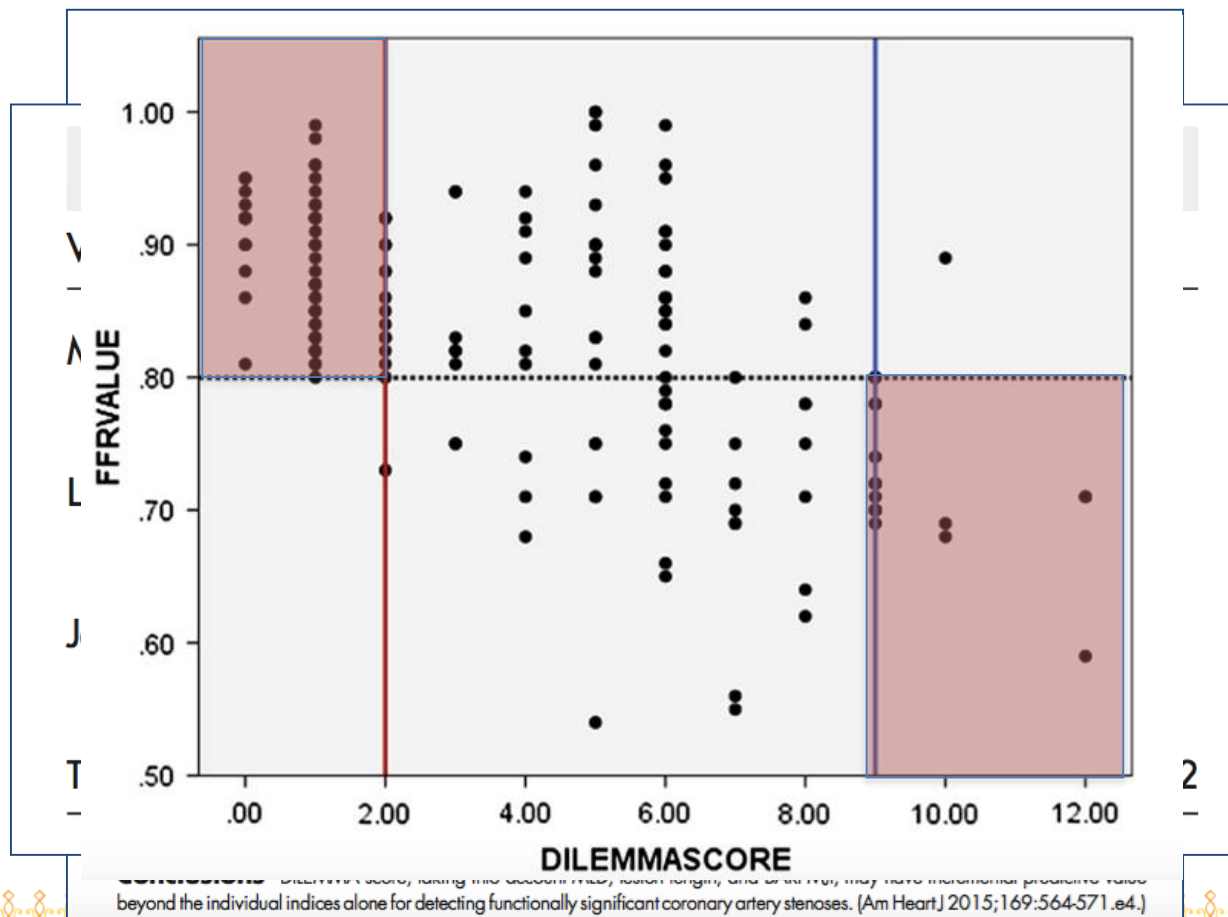
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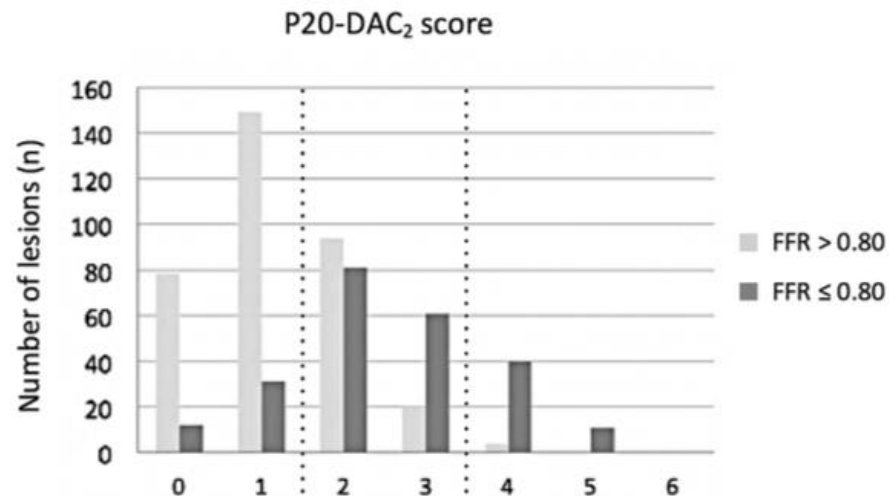
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		Score
P	Proximal disease	1
20	Length of lesion > 20 mm	1
D	Diagonals – distal take-off *	1
A	Apical wrap of LAD	1
C	Collaterals to RCA/LCX	2
Maximal score		6



P20-DAC₂ score 0-1: Probability of flow-limitation < 20%

P20-DAC₂ score 2-3: Probability of flow-limitation 20-90%

P20-DAC₂ score ≥ 4: Probability of flow-limitation > 90%

other lesion/vessel characteristics are evaluated—can lead to a more accurate identification of functionally significant coronary stenoses. © 2015 Elsevier Inc. All rights reserved. (Am J Cardiol 2015;115:1475–1480)



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Am J Cardiol 2015;115:1475e1480

Factors Indicating a Clinically Significant Lesion

- Longer lesions
- Lesions in the proximal LAD
- Amount of myocardium in jeopardy



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Fractional flow reserve
managing
segmental
British
randomised

Outcomes
Primary
The pre-
the prop
treatment
laboratory
disciplinary

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investigators

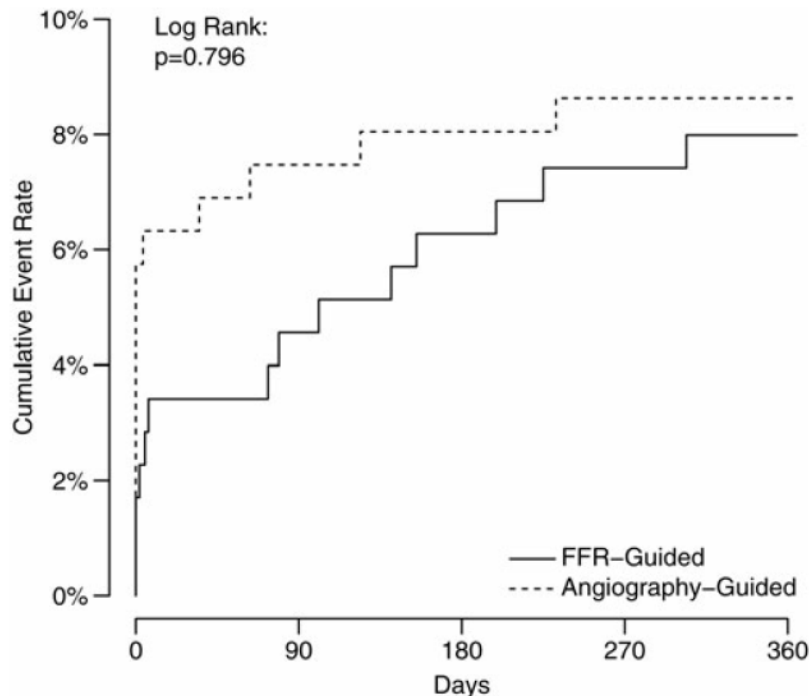


Figure 4 Kaplan–Meier plots for major adverse cardiac events during 12-month follow-up in the FFR-guided group and angiography-guided group.

FASTTRACK

ESC HOT LINE

Acute coronary syndromes

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rath Balachandran⁵,
Shaukat¹,

JS–NSTEMI

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Limitations in Interpretation of FFR Values

- Severe LVH
- Chronic total occlusions
- Recent caffeine use



Conclusions

- Is the diagnosis obvious?
- Does the lesion appear to be clinically significant?
- Would FFR be conclusive, useful or applicable to your patient?

Think before you FFR....

