



Intervenční kardiologie
IKK FN Brno

FFR case from the Czech Republic

P.Kala, O.Bocek

University Hospital Brno

ETP Course at EHH, Nice 2013



History I

- Male, 63 yo
- Diabetes mellitus type II
- COPD
- PAD



History II

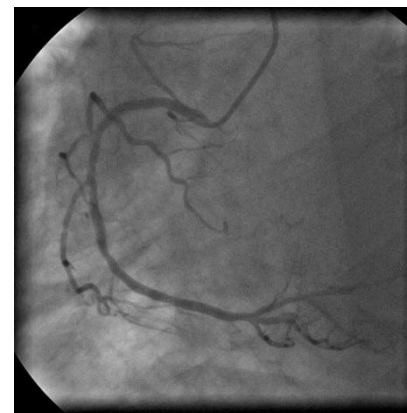
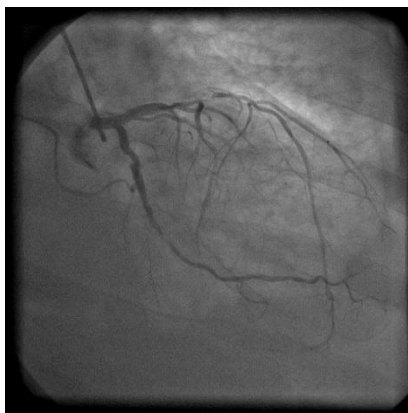
- **March, 2013 - NSTEMI**
 - treated conservatively in the community hospital
- **April, 2013 - Elective Coronary Angiography**
 - Coronary angiography:
 - CTO of LAD,
 - 90% stenosis of LCX,
 - borderline lesion of RCA
 - LVEF 33%
- Logistic EuroSCORE 17%
- Syntax score not calculated

NSTEMI 3/2013

Diagnostic cath 4/2013

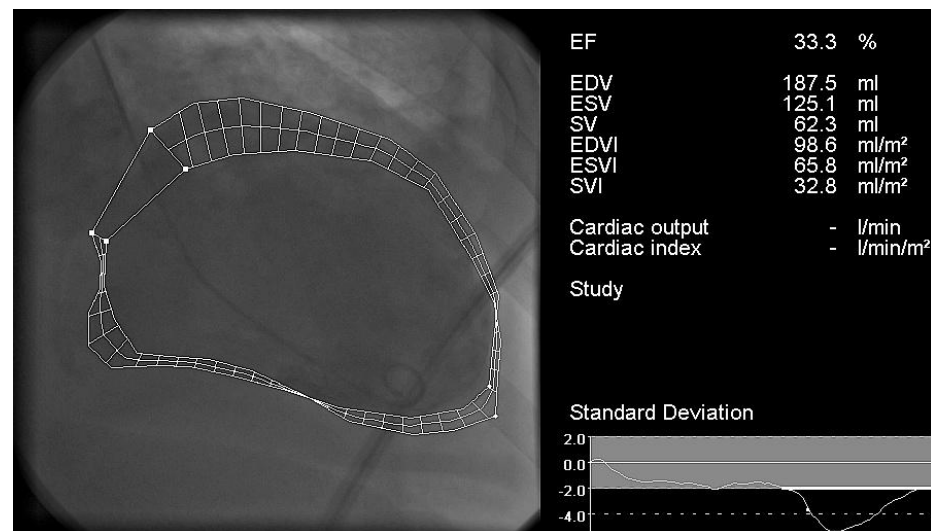


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NSTEMI 3/2013

Diagnostic cath 4/2013





What to do?

CABG versus PCI

- 2 / 3 vessel disease
- CTO of LAD
- Severe LV dysfunction
- Diabetes mellitus
- High perioperative risk

Decision-making process

Part I

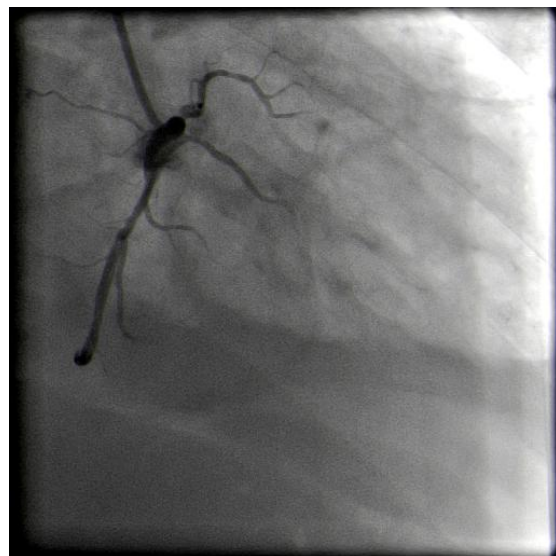
- The treatment strategy was based on a broad discussion with the patient after finishing the diagnostic angiography.
- Both advantages and risks of both types of revascularization (CABG and PCI+DES) were repeatedly mentioned.
- Patient decided to follow the interventional, step-by-step treatment strategy.

Decision-making process

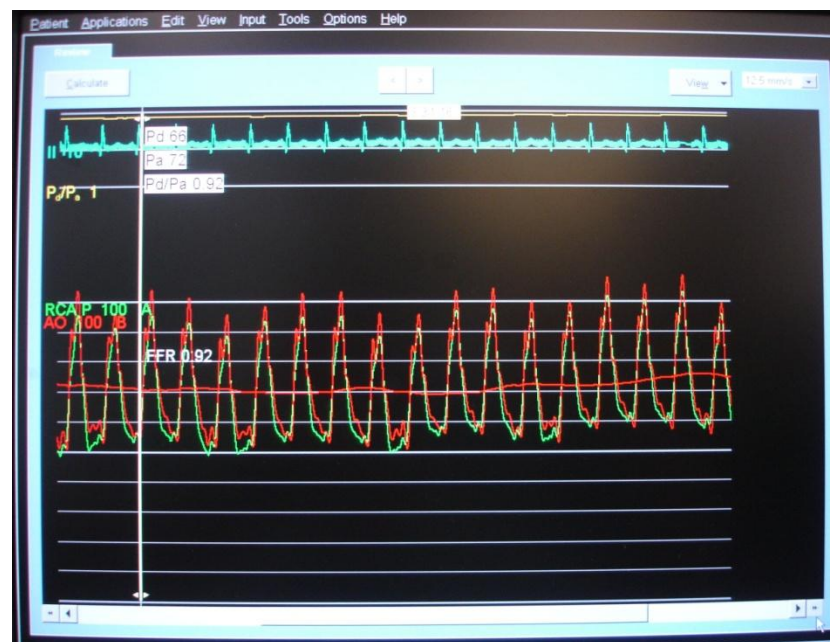
Part II

- **Step 1**
 - FFR of RCA – if significant = CABG
- **Step 2**
 - Non-significant RCA lesion raises steps 3+4
- **Step 3**
 - CTO of LAD - Complex PCI
 - if not-successful = CABG
 - If successful = step 4
- **Step 4**
 - PCI of LCx - Technically simple

Step 1+2. FFR of RCA



Integrated wireless FFR



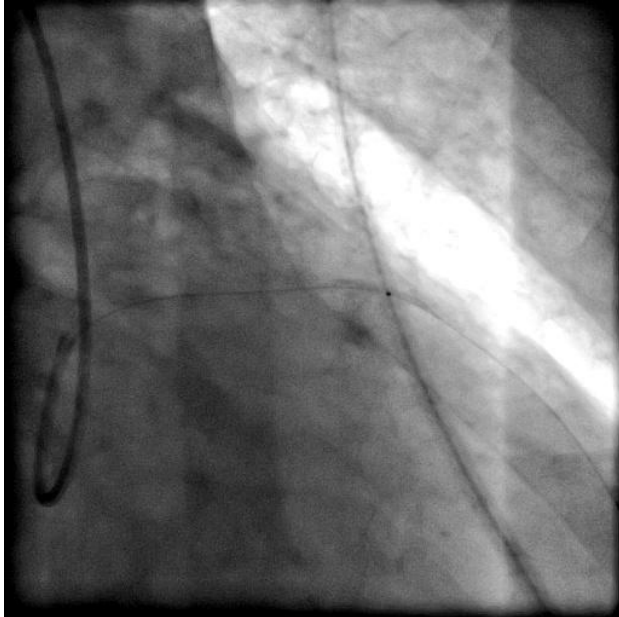
FFR = 0.92
During maximal hyperemia –
40..100ug bolus of Adenosine

Step 3. Recanalization of LAD

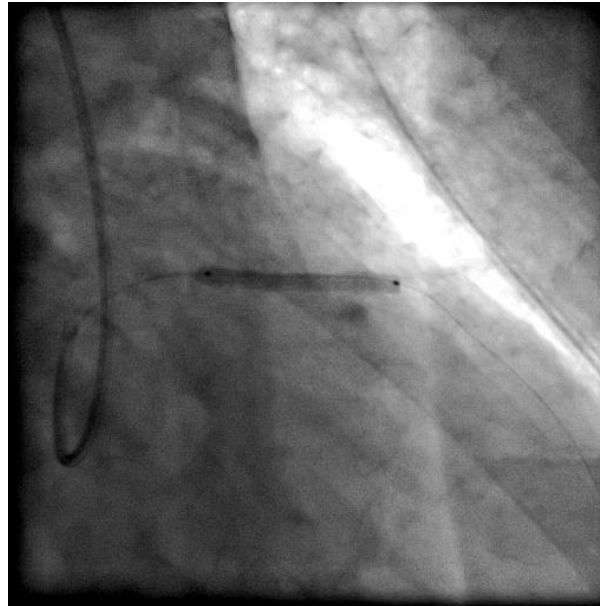


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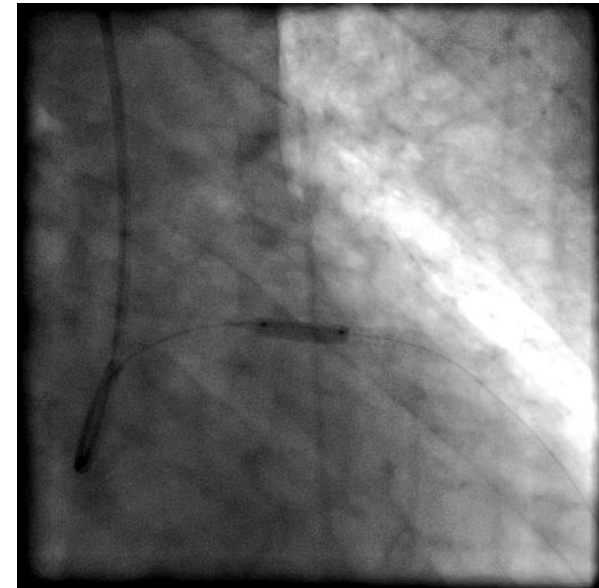
Predilatation of LAD
SC balloon 1,25x10 mm



Stenting of LAD,
EES DES 2.75x28mm

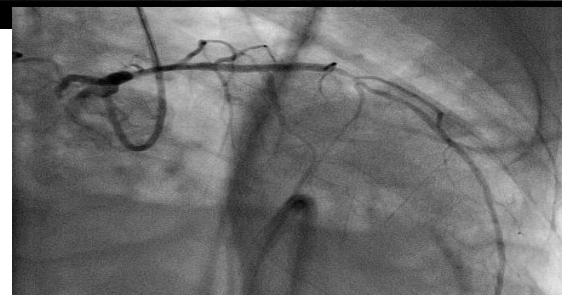
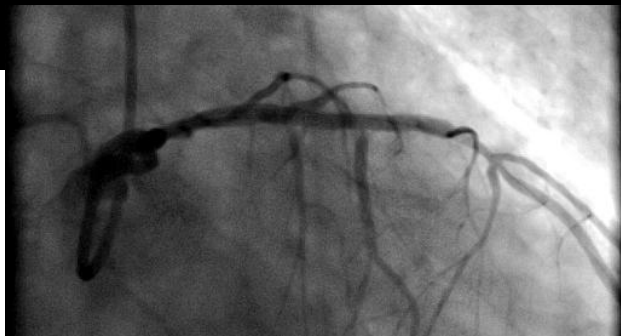
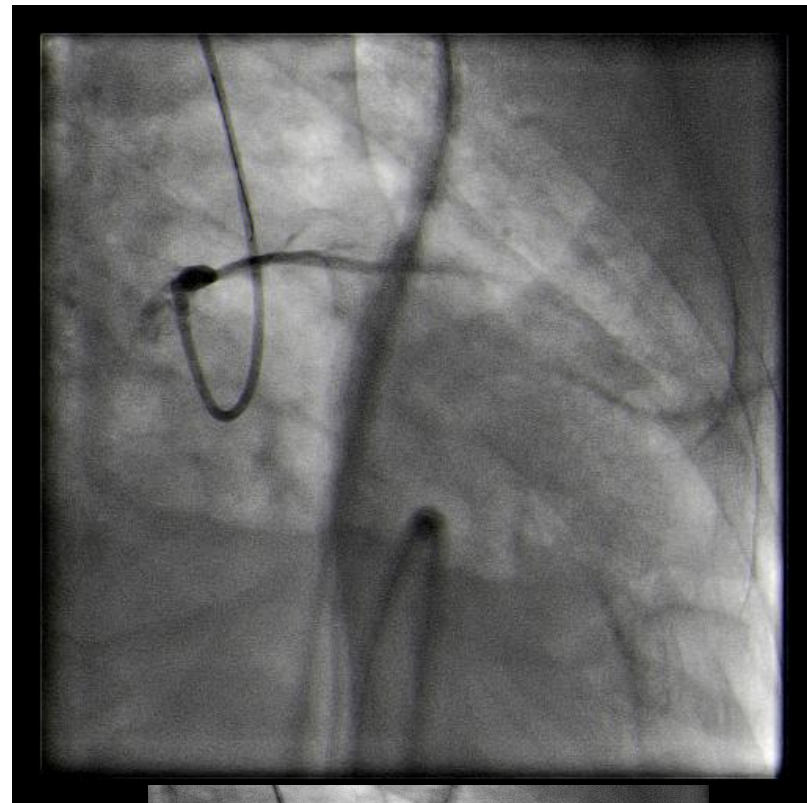
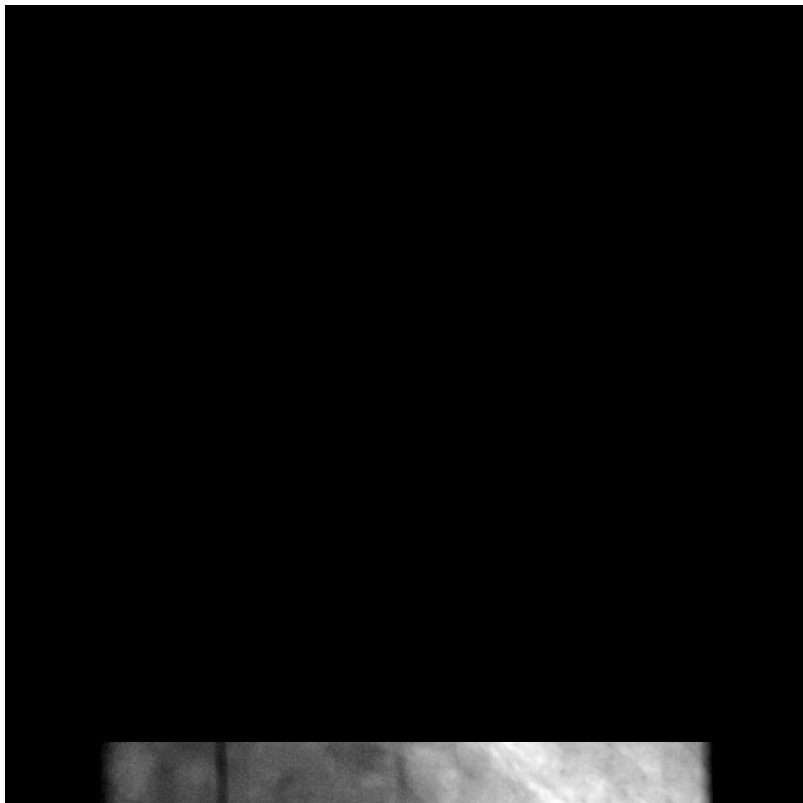


Postdilation of LAD,
NC 3.0x12mm



Step 3. Recanalization of LAD

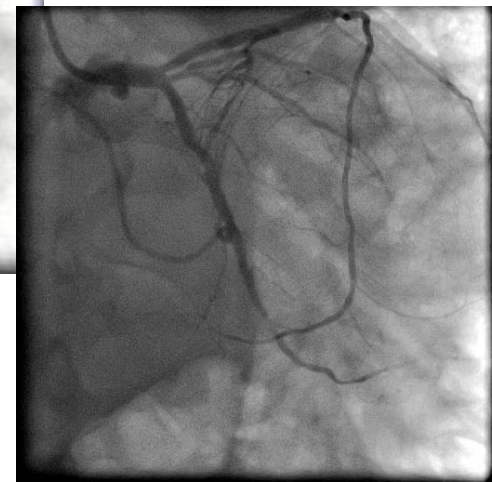
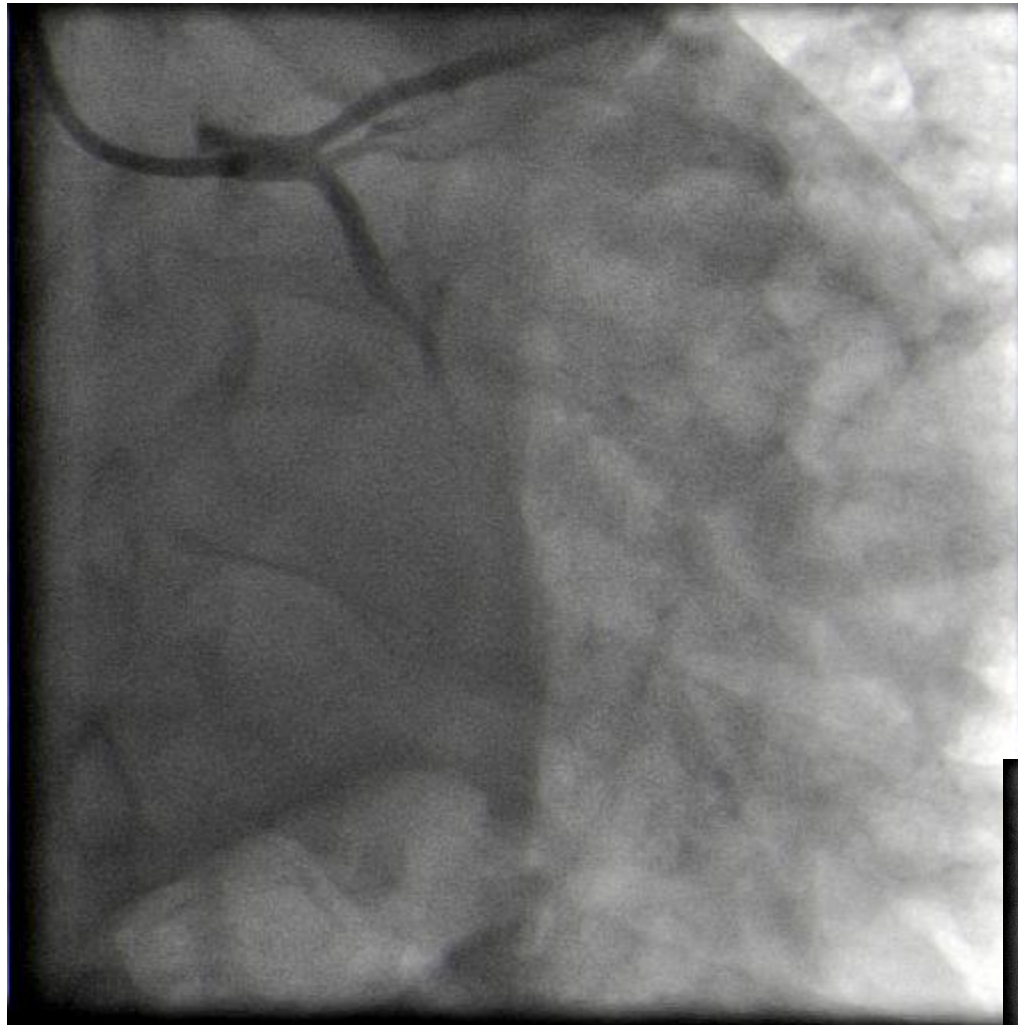
Final result after complex PCI of LAD



Step 4. PCI of LCx

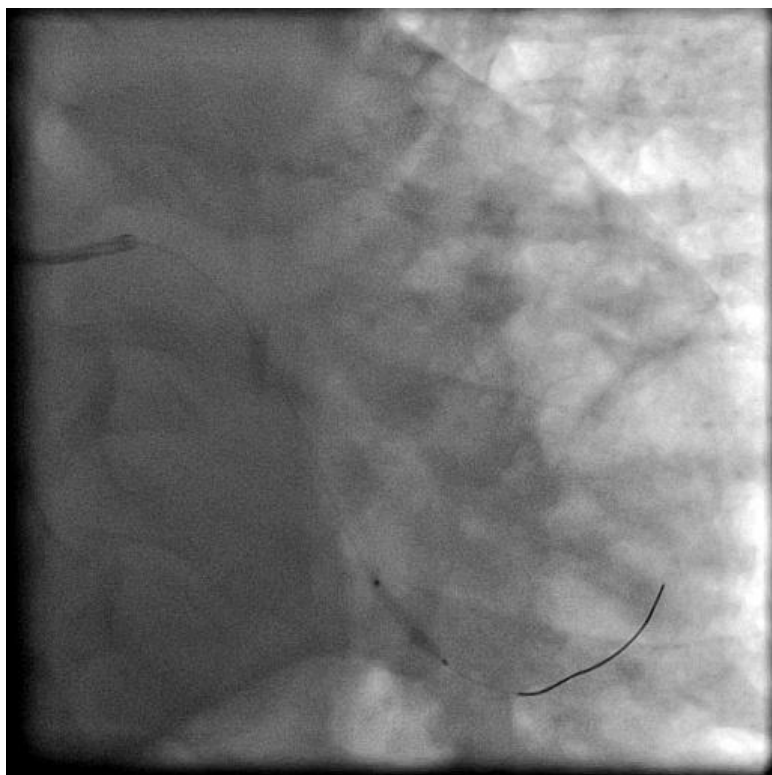


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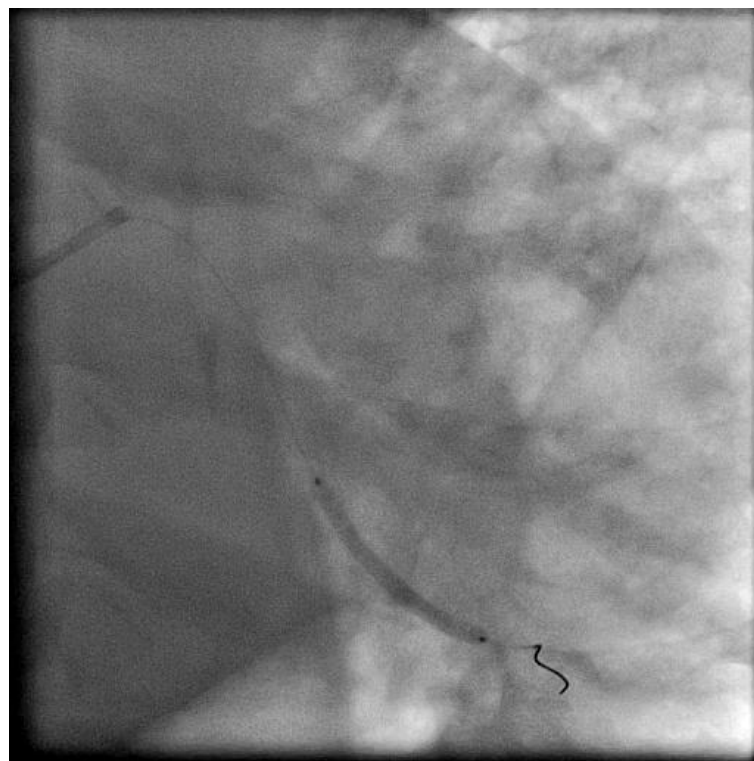


Step 4. PCI of LCx

Predilation



EES DES 2.5/32mm



Step 4. PCI of LCx

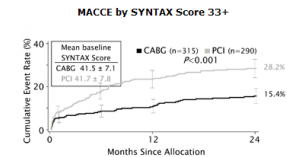
Final result after PCI of LCX





Discussion

- Log EuroSCORE vs. EuroSCORE II
 - 17% vs. 2%
- Syntax score calculation
 - Anatomic vs. Functional?
 - 32% vs. 23%?
- CABG vs. PCI
 - in favor of CABG?
- Patient's preference
 - PCI!



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

Summary

Lesion 1	
segment number(s)	2
(segment 2): 1x2=	17.5
(segment 5): 3.5x5=	1
(segment 13): 0.5x2=	1
Age T.O. is unknown	0
the first segment beyond the T.O. visualized by contrast: 6	21.5
Sub total lesion 1	
Lesion 2	
(segment 2): 1x2=	2
Length >20 mm	3
Sub total lesion 2	
Lesion 3	
(segment 13): 0.5x2=	1
Sub total lesion 3	1
Diffuse disease/Small vessels	
Segment 2	1
Segment 3	1
Segment 6	1
Segment 7	1
Segment 8	1
Segment 11	1
Segment 13	1
Sub total diffuse disease/small vessels	7
TOTAL:	32.5

Take home message

- Individual approach has to be applied especially in patients at high risk – i.e. both for surgical and interventional treatment.
- Complex step-by-step treatment strategy may be beneficial for the patient and is doable at the same time.
- The patient requires careful follow-up, is waiting for ICD...
- The whole strategy was based on the experience of the interventional team

and

the result of FFRmyo as a step No. 1.