

Клиничен случай

Николай Стоянов

УМБАЛ “Света Анна” София

Анамнеза

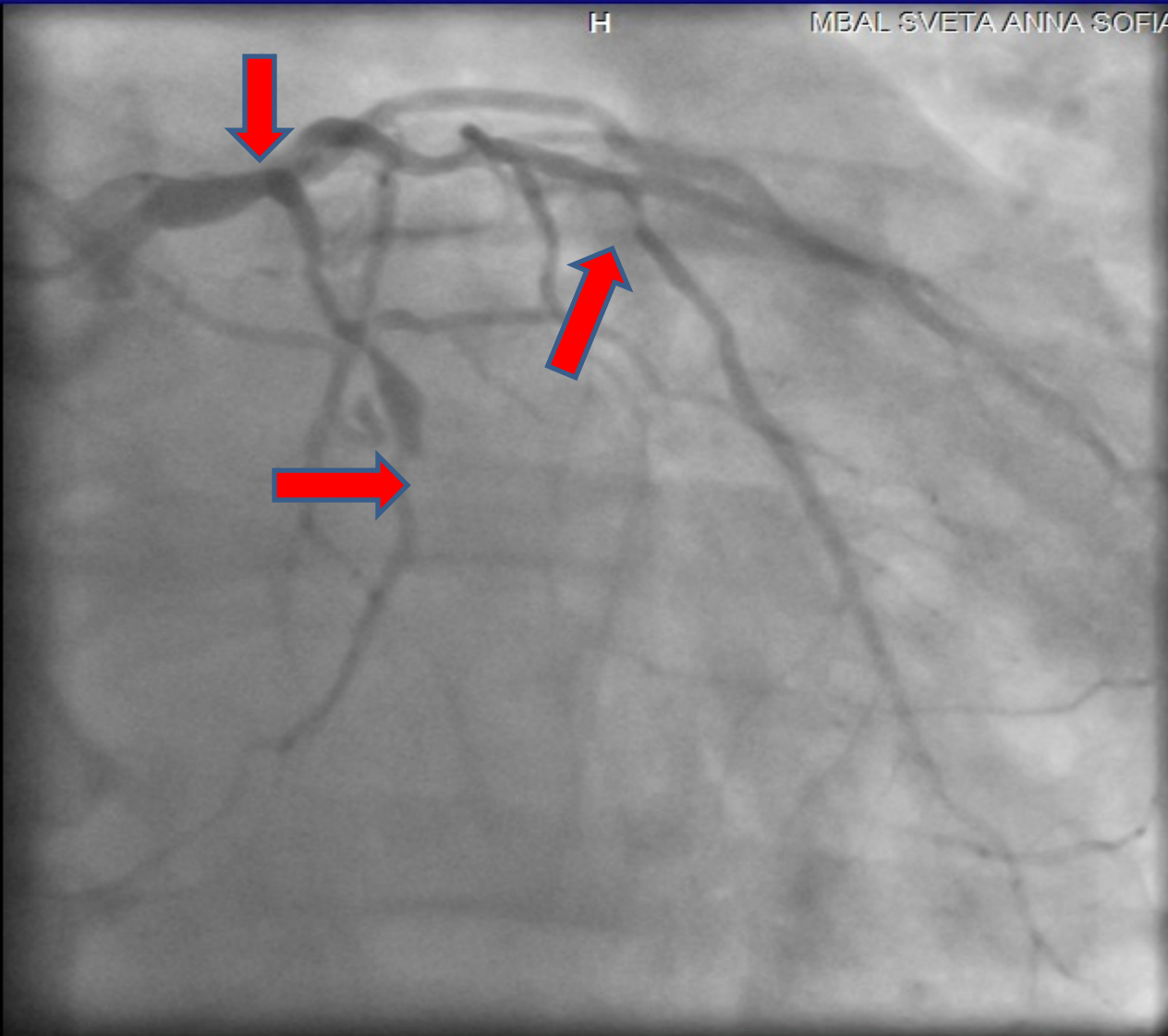
- Мъж на 55 години
- Захарен диабет тип 2
- Болка в гърдите с вегетативна симптоматика от 2 часа
- КМ- 2x 360J => Асистолия=> КПР
- ЕКГ: ST-депресии 3 мм II, III, aVF; ST-елевации V7-V9
- ЕхоКГ: инферо- и антеролатерална акинезия; ФИ- 42%

Ангиография

avko Lazarov
181510B
3
3
1
FRM 24

H

MBAL SVETA ANNA SOFIA AD/64D652/
AXIOM-Artis
HFS



_ANE\SINGLE A

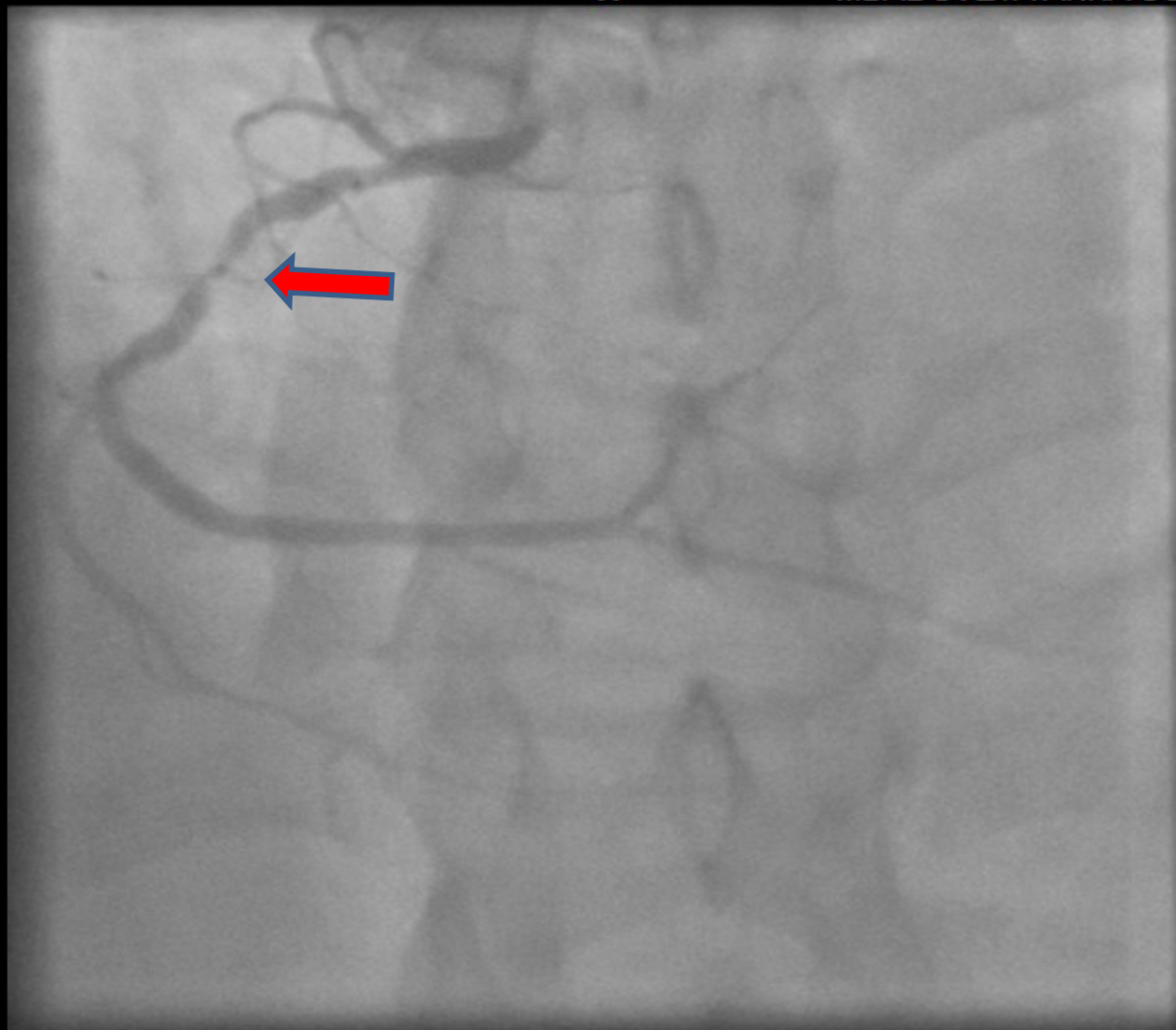
Ангиография

o Lazarov
510B

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MBAL SVETA ANNA SOFIA AD/64D652/
AXIOM-Artis
HFS

18



E\SINGLE A

Въпрос

1. Първична ангиопластика
2. Кардиохирургия по спешност

Първична PCI- тромбаспирация

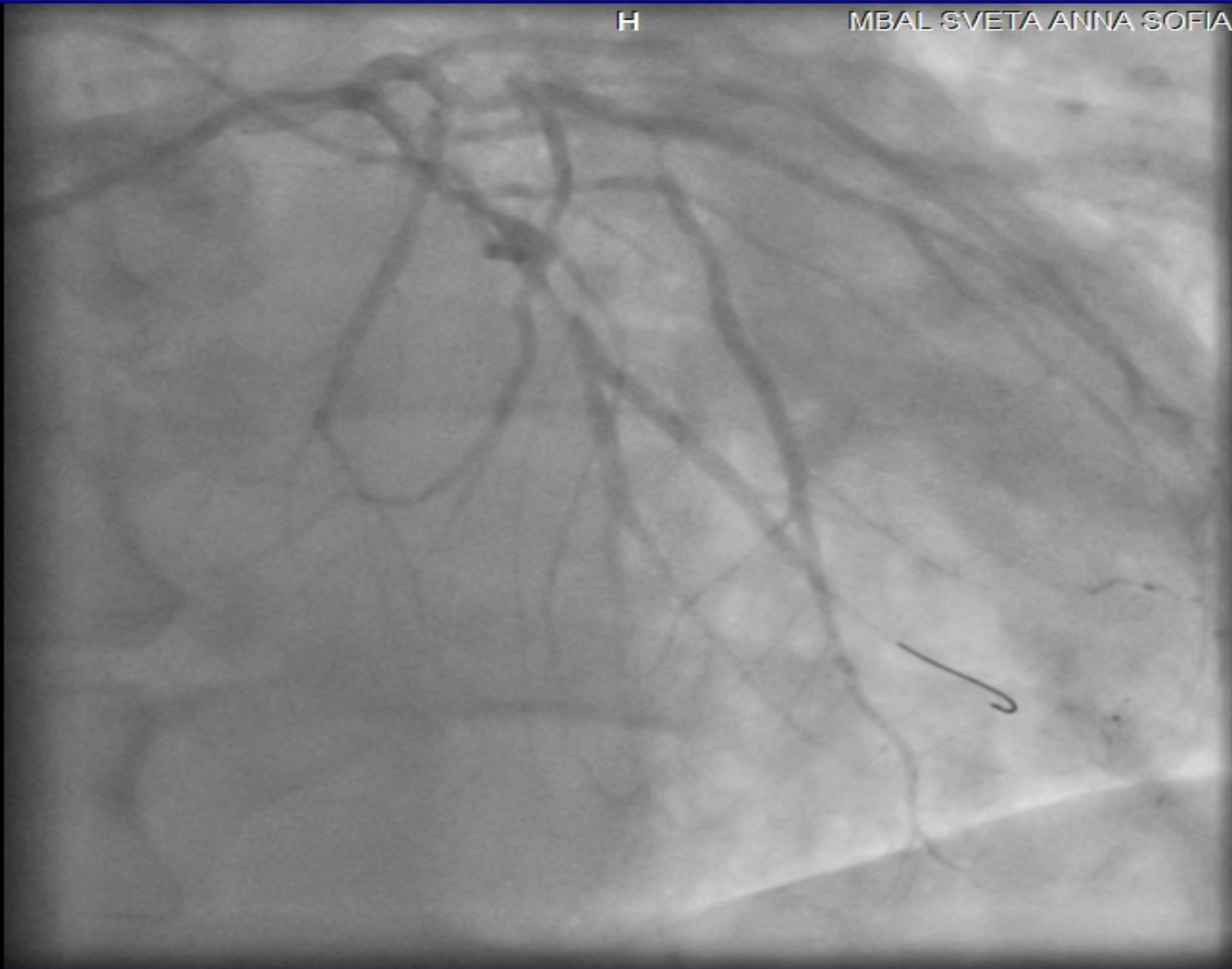
Lazarov
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MBAL SVETA ANNA SOFIA AD/64D652/
AXIOM-Artis
HFS

4

SINGLE A



STENT 2,75/20mm



STENT 3,0/24mm



Първична РСІ

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MBAL SVETA ANNA SOFIA AD/64D652/
AXIOM-Artis
HFS

ANGLE A



ИКС

- Хемодинамично стабилен
- Ticagrelor, ASA, BB, ARB, статин, перорална хипогликемична терапия
- Дехоспитализация на 5-ти ден

45 ДНИ ПО-КЪСНО...

Оптимална медикаментозна терапия

ССS II фк

Ехо КГ: лека антеролатерална
хипокинезия; ФИ 53%

Контролна ангиография...

H

MBAL SVETA ANNA SOFIA AD/64

Kolev,Zdravko Lazarov

ID: 20140305208B

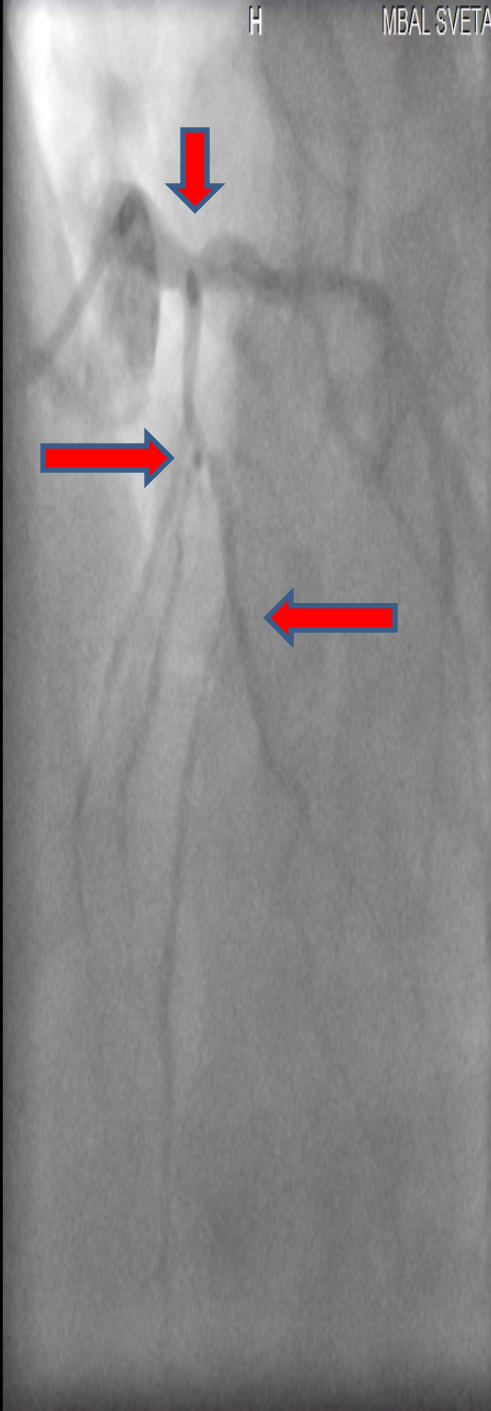
* 2/14/1958

Study 1

3/5/2014

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1 IMA 43 FRM 28



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Coro 2020

Coro 2020

SINGLE PLANE/SINGLE A

CAU 26

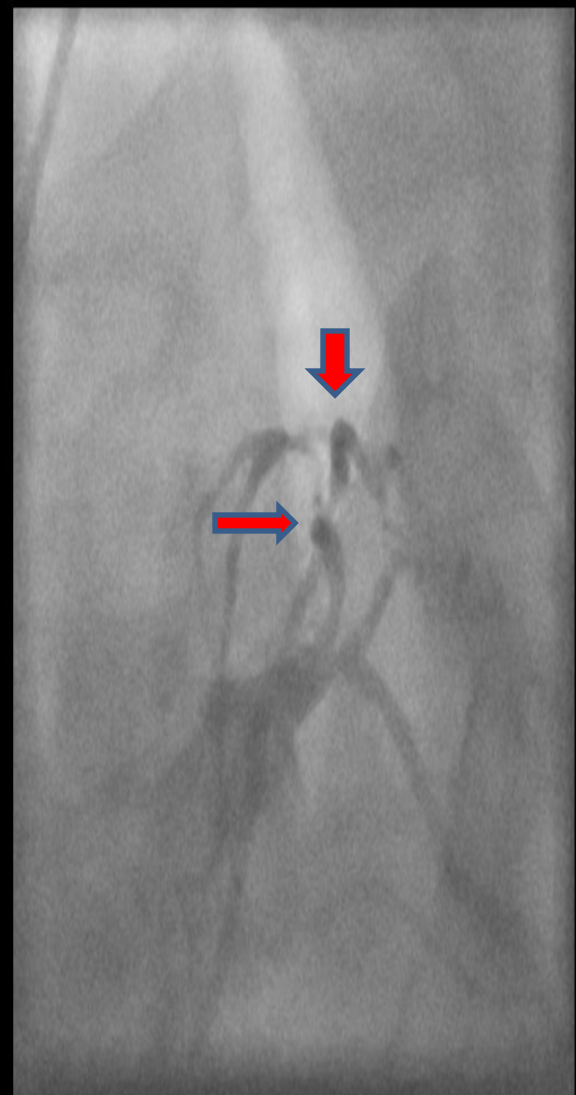
LAO 43

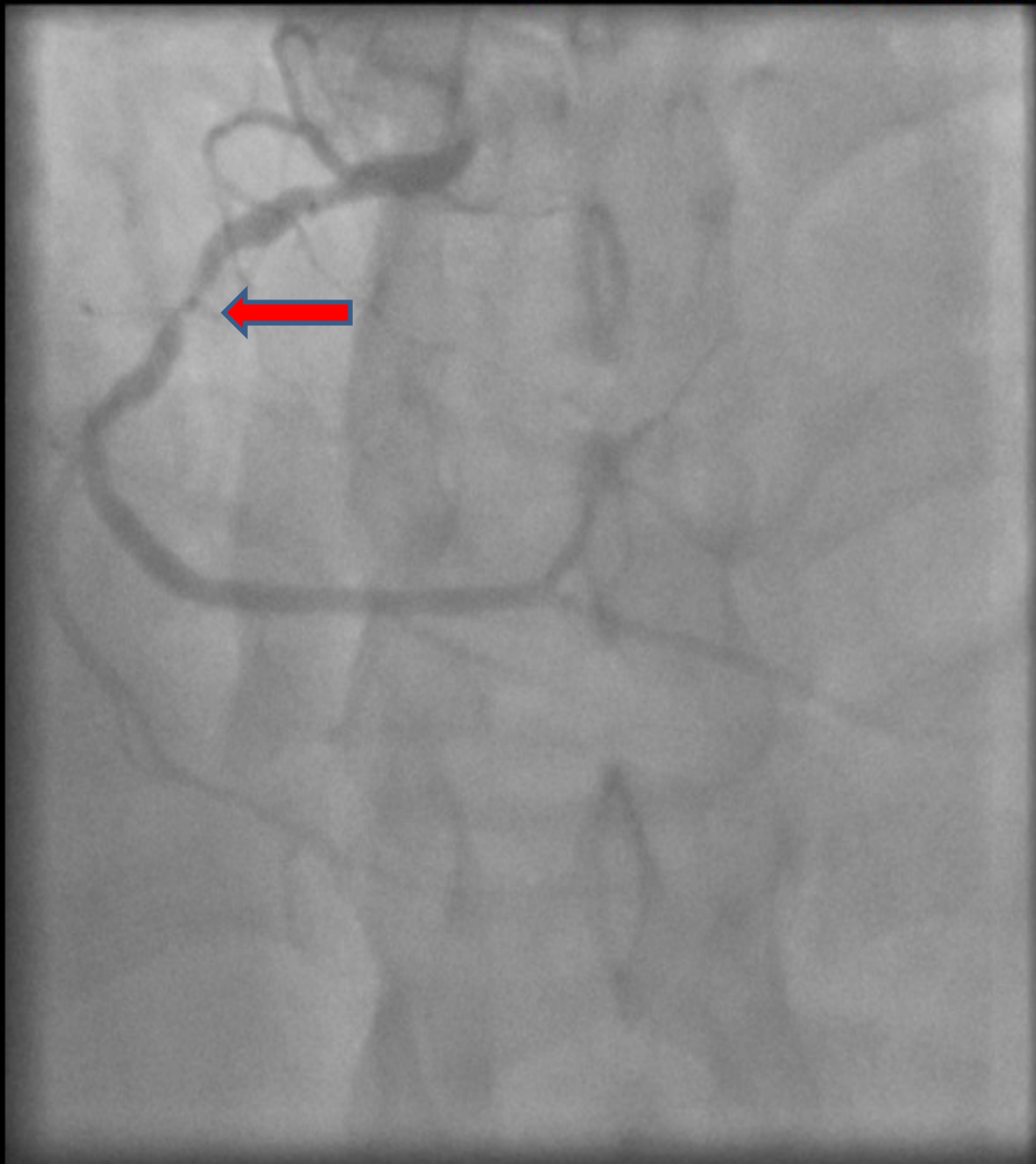
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MBAL SVETA ANNA SOFIA AD/64D652/

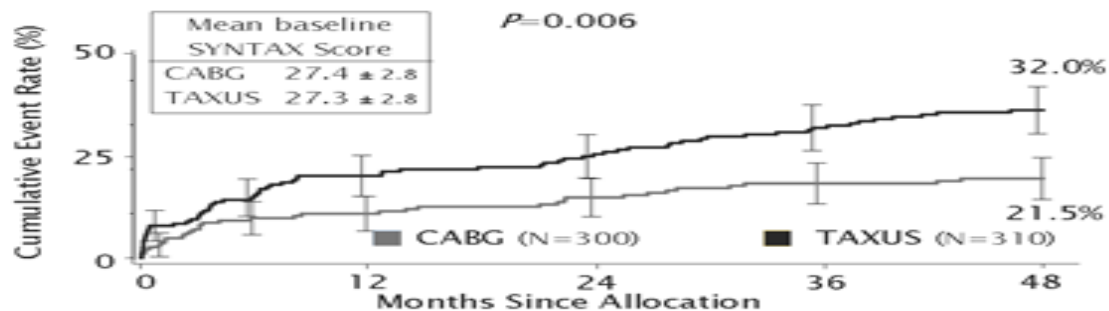
AXIOM-Artis

HFS





MACCE by SYNTAX Score 23-32



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

Summary

Lesion 1

(segment 2): 1x2=	2
(segment 5): 5x2=	10
(segment 6): 3.5x2=	7
(segment 7): 2.5x2=	5
Bifurcation Type: Medina 1,1,1:	2
Length >20 mm	1
Sub total lesion 1	27

TOTAL: 27

Patient related factors			Cardiac related factors		
Age ¹ (years)	<input type="text" value="55"/>	<input type="text" value="0.03"/>	NYHA	<input type="text" value="I"/>	<input type="text" value="0"/>
Gender	<input type="text" value="male"/>	<input type="text" value="0"/>	CCS class 4 angina ⁸	<input type="text" value="no"/>	<input type="text" value="0"/>
Renal impairment ² <small>See calculator below for creatinine clearance</small>	<input type="text" value="normal (CC >85ml/min)"/>	<input type="text" value="0"/>	LV function	<input type="text" value="good (LVEF > 50%)"/>	<input type="text" value="0"/>
Extracardiac arteriopathy ³	<input type="text" value="no"/>	<input type="text" value="0"/>	Recent MI ⁹	<input type="text" value="yes"/>	<input type="text" value="1528943"/>
Poor mobility ⁴	<input type="text" value="no"/>	<input type="text" value="0"/>	Pulmonary hypertension ¹⁰	<input type="text" value="no"/>	<input type="text" value="0"/>
			Operation related factors		
Previous cardiac surgery	<input type="text" value="no"/>	<input type="text" value="0"/>	Urgency ¹¹	<input type="text" value="elective"/>	<input type="text" value="0"/>
Chronic lung disease ⁵	<input type="text" value="no"/>	<input type="text" value="0"/>	Weight of the intervention ¹²	<input type="text" value="isolated CABG"/>	<input type="text" value="0"/>
Active endocarditis ⁶	<input type="text" value="no"/>	<input type="text" value="0"/>	Surgery on thoracic aorta	<input type="text" value="no"/>	<input type="text" value="0"/>
Critical preoperative state ⁷	<input type="text" value="no"/>	<input type="text" value="0"/>			
Diabetes on insulin	<input type="text" value="no"/>	<input type="text" value="0"/>			
EuroSCORE II <input type="text" value="EuroSCORE"/>	<input type="text" value="0.58 %"/>				
<small>Note: This is the 2011 EuroSCORE II</small> <input type="button" value="Calculate"/> <input type="button" value="Clear"/>					

Въпрос

- Кардиохирургична реваскуларизация
- Multi PCI
- Оптимална медикаментозна терапия
- **FFR на стенозите за доказване на хемодинамична значимост???**

2013 ESC guidelines on the management of stable coronary artery disease

The Task Force on the management of stable coronary artery disease of the European Society of Cardiology

Table 3 I Use of fractional flow reserve, intravascular ultrasound, and optical coherence tomography in SCAD

Recommendations	Class ^a	Level ^b	Ref. ^c
FFR is recommended to identify hemodynamically relevant coronary lesion(s) when evidence of ischaemia is not available.	I	A	399, 401, 405
Revascularization of stenoses with FFR <0.80 is recommended in patients with angina symptoms or a positive stress test.	I	B	400

“ FFR measurement may change the strategy of revascularization (PCI vs CABG) and the extent of revascularization according to the functional assessment of stenosis in critical coronary locations.”

Long-term clinical outcome after fractional flow reserve-guided treatment in patients with angiographically equivocal left main coronary artery stenosis.

Hamilos M¹, Muller O, Cuisset T, Ntalianis A, Chlouverakis G, Sarno G, Nelis O, Bartunek J, Vanderheyden M, Wyffels E, Barbato E, Heyndrickx GR, Wijns W, De Bruyne B.

BACKGROUND:

Significant left main coronary artery stenosis is an accepted indication for surgical revascularization. The potential of angiography to evaluate the hemodynamic severity of a stenosis is limited. The aims of the present study were to assess the long-term clinical outcome of patients with an angiographically equivocal left main coronary artery stenosis in whom the revascularization strategy was based on fractional flow reserve (FFR) and to determine the relationship between quantitative coronary angiography and FFR.

METHODS AND RESULTS:

In **213 patients** with an angiographically equivocal left main coronary artery stenosis, FFR measurements and quantitative coronary angiography were performed. When FFR was $>$ or $=0.80$, patients were treated medically or another stenosis was treated by coronary angioplasty (nonsurgical group; $n=138$).

When FFR was <0.80 , coronary artery bypass grafting was performed (surgical group; $n=75$). **The 5-**

year survival estimates were 89.8% in the nonsurgical group and 85.4% in the surgical group (P=0.48). The 5-year event-free survival estimates were 74.2% and 82.8% in the nonsurgical and surgical groups, respectively (P=0.50).

Percent diameter stenosis at quantitative coronary angiography correlated significantly with FFR ($r=-0.38$, $P<0.001$), but a very large scatter was observed. **In 23% of patients with a diameter stenosis $<50\%$, the left main coronary artery stenosis was hemodynamically significant by FFR.**

CONCLUSIONS:

In patients with equivocal stenosis of the left main coronary artery, angiography alone does not allow appropriate individual decision making about the need for revascularization and often underestimates the functional significance of the stenosis.

The favorable outcome of an FFR-guided strategy suggests that FFR should be assessed in such patients before a decision

FFR

- LM-LAD prox. : 0.87
- LM-LCx : 0.86
- LAD: 0.69 - СИГНИФИКАНТ
- RCA: 0.77 - СИГНИФИКАНТ



SYNTAX SCORE

Summary

Lesion 1

(segment 2): 1x2=
 (segment 6): 3.5x2=
 (segment 7): 2.5x2=
 Bifurcation Type: Medina 1,1,1:
 Length >20 mm
 Sub total lesion 1

2
 7
 5
 2
 1
 17

TOTAL:

17



PCI- LAD

ko Lazarov
208B

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MBAL SVETA ANNA SOFIA AD/64D652/
AXIOM-Artis
HFS

M 19 AFPS 18



NE\SINGLE A

PCI- LAD

STENT 2,75/24

STENT 3,5/20

avko Lazarov

05208B

3

M

RM 1

H

MBAL SVETA ANNA SOFIA AD/64D652/

AXIOM-Artis

HFS

Kolev,Zdravko Lazarov

ID: 20140305208B

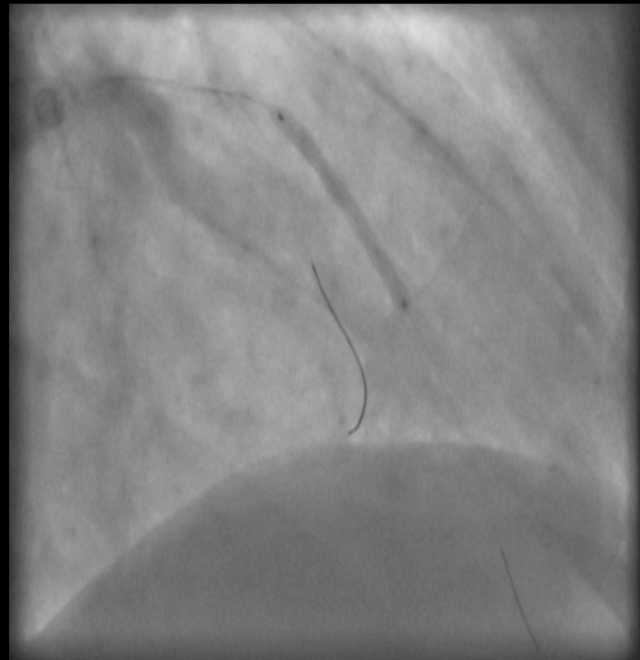
* 2/14/1958

Study 1

3/5/2014

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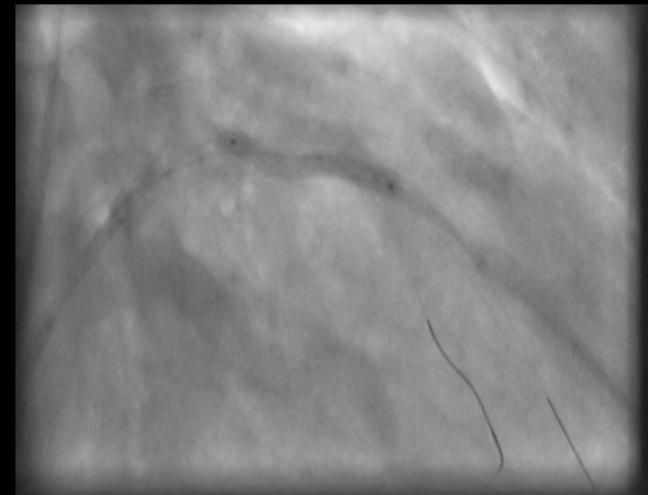
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MBAL SVETA ANNA SOFIA AD/64D652/

AXIOM-Artis

HFS

R



LANE/SINGLE A

Coro 2020

Coro 2020

SINGLE PLANE/SINGLE A

CRA 27

RAO 32

PCI-LAD

Zdravko Lazarov

05208B

3

M

FRM 15

H

MBAL SVETA ANNA SOFIA AD/64D652/

AXIOM-Artis

HFS

Kolev, Zdravko Lazarov

ID: 20140305208B

* 2/14/1958

Study 1

3/5/2014

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MBAL SVETA ANNA SOFIA AD/64D6

AXIOM-A

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Coro 2020

Coro 2020

SINGLE PLANE/SINGLE A

CRA 23

LAO 40



LANE/SINGLE A

FFR след PCI

- LAD:0.86
- LM-LCx: 0.87

PCI-RCA

Kolev,Zdravko Lazarov
ID: 2014012885A
* 2/14/1958
Study 1
1/27/2014
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Coro 2020
Coro 2020
SINGLE PLANE\SINGLE A
CRA 22
LAO 18

Kolev,Zdravko Lazarov
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* 2/14/1958
Study 1
1/27/2014
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Coro 2020
Coro 2020
SINGLE PLANE\SINGLE A
CRA 28
LAO 16

Kolev,Zdravko Lazarov
ID: 2014012885A
* 2/14/1958
Study 1
1/27/2014
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R

Coro 2020
Coro 2020
SINGLE PLANE\SINGLE A
CRA 2
LAO 33

H

MBAL SVETA ANNA AD
AXIOM-Artis
HFS



FFR на RCA

0.92

1 месец проследяване

- Без стенокардна симптоматика
- Без данни за кървене
- Оптимална медикаментозна терапия

Въпрос

Кой от вас би използвал FFR при решаването типа на реваскуларизация при следващия си многоклонов пациент?