



Peoples' Friendship
University of Russia

**TREATMENT OF PATIENTS WITH BIFURCATION LEFT
MAIN CORONARY ARTERY LESIONS**
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Study design: 3-years Follow Up

*n=94
randomized*

**Group I
n= 48**

**Group II
n= 46**

«**One stent strategy**»
«**Provisional T**»

«**Two stent strategy**»

Culotte	n=17
Mini-crush	n=16
Revers-culotte	n=10
« DK-crush »	n=3



Angiographic data	Group I (n=48)	Group II (n=46)	p
Angel: <70° (%)	13 (25,5%)	37 (86%)	0,0001
>70° (%)	38 (74,5%)	6 (14%)	
Calcinosis LMCA, %	7 (13,7%)	9 (20,9%)	0,062
Calcinosis LAD, %	9 (17,6%)	14 (32,5%)	0,001
Calcinosis LCX, %	10 (19,6%)	16 (37,2%)	0,023
Length lesion LAD, mm	17,33±2,19	21,43±4,25	0,67
Length lesion LCX, mm	18,4±2,12	24,23±2,89	0,73
Average diameter of stents LMCA/LAD, mm	3,8±	4,0±	ND*
Average diameter of stents LMCA/LCX, mm	3,3±	3,53±	
Average length of stents LMCA/LAD, mm	20,14±	23,18±	
Average length of stents LMCA/LCX, mm	19,16±	25,82±	

<i>stable angina III-IV</i>	100%
<i>silent ischemia</i>	51%
<i>previous myocardial infarction</i>	40,4%
<i>heart failure I-IV</i>	100%
<i>diabetes mellitus</i>	35,1%
<i>hypertension</i>	100%
<i>smoker</i>	88, 3%
<i>elevated cholesterol</i>	55,3%

True coronary bifurcation stenosis

*IVUS
SIDE BRANCH
(LCX) OSTIUM*

1/0; 1; 0 0/0; 1; 0
0/1; 0; 1
False bifurcation

1/1; 1;1 1/0; 1; 1
0/1; 1;1 0/0; 1; 1
True bifurcation

**Significant SB disease extends beyond SB ostium
length > 5.0mm; angel < 70**

Provisional T

SB angiographically compromised

Kissing-balloons

Kissing-balloons

IVUS

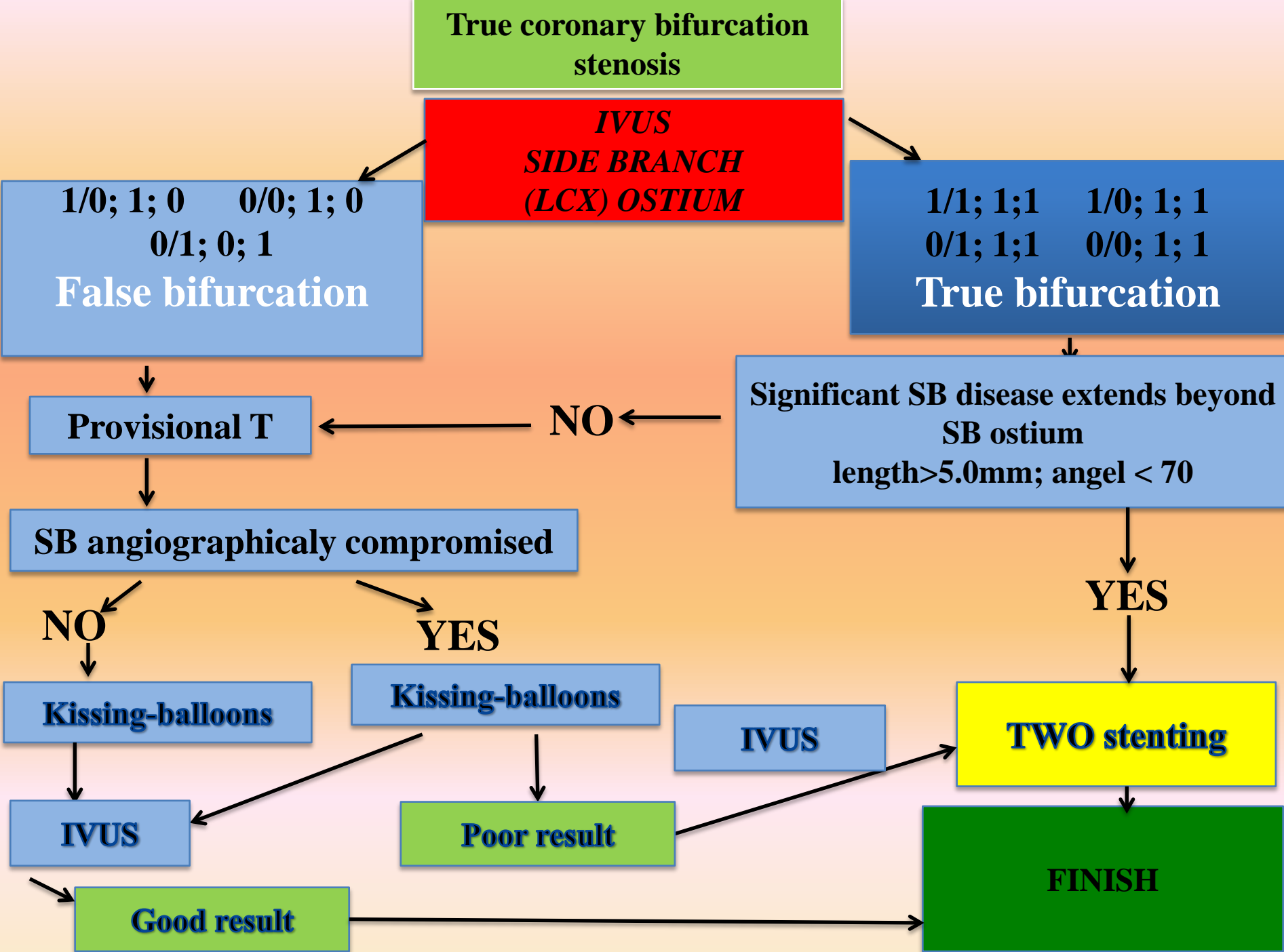
IVUS

Poor result

TWO stenting

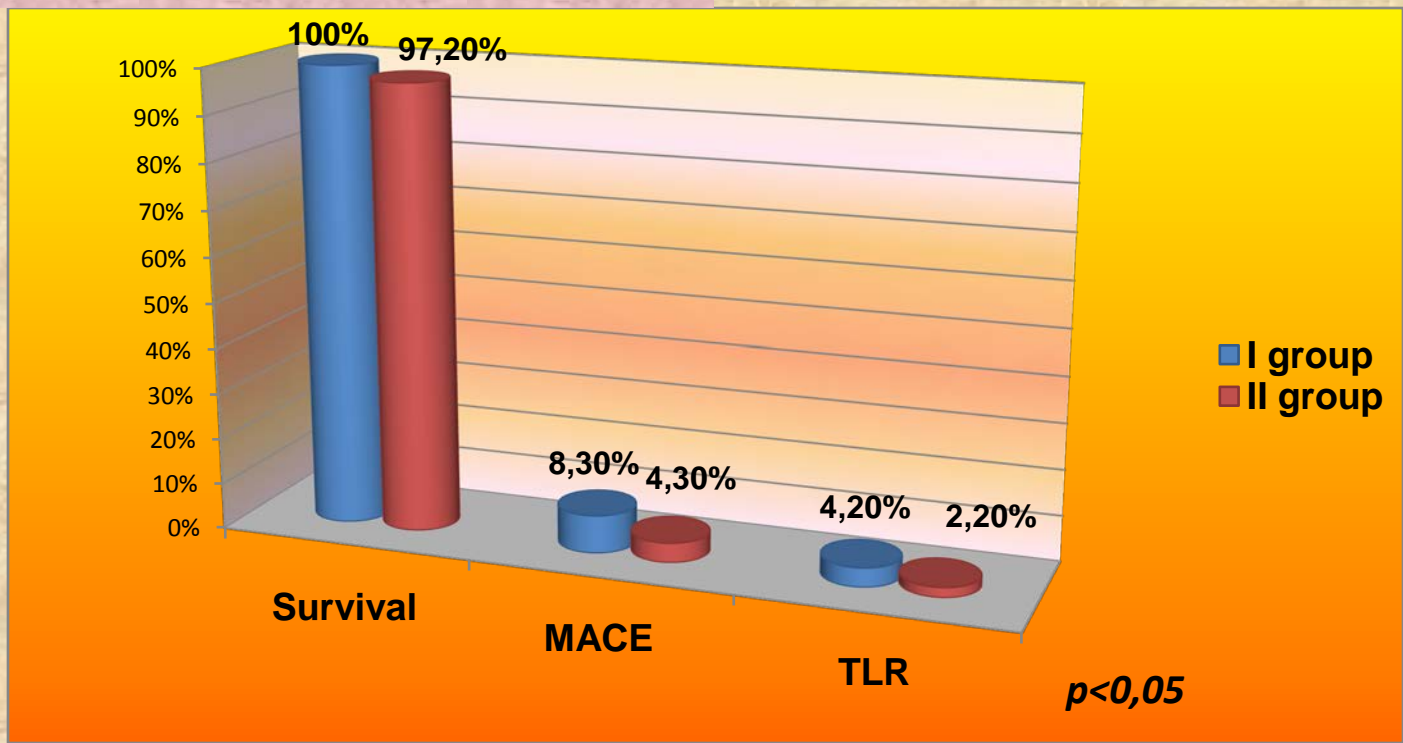
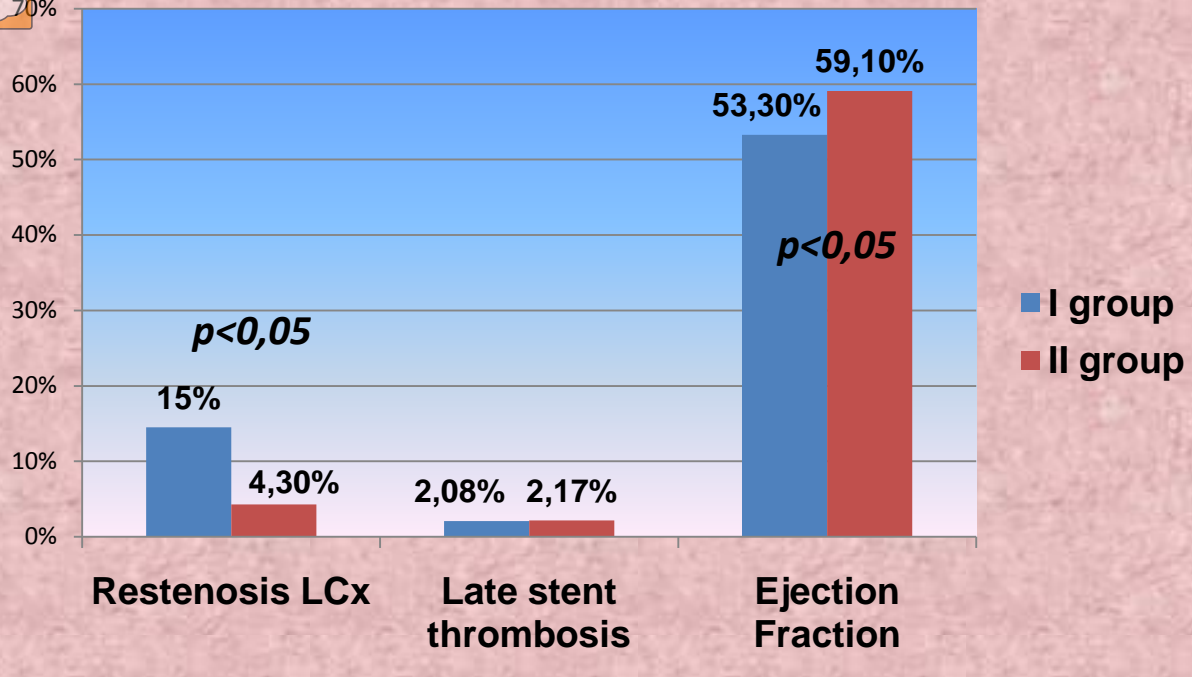
FINISH

Good result



70%

3-years Follow-up



3-years Follow-up: IVUS results

Average MLA, mm	Group I (n=48)	Group II (n=46)	p
Proximal segment LMCA	7,89±0.03	8,0±0.02	0,065
Ostium LCX	5.62± 0,12	6.02±0,01	0,032
Ostium LAD	6.62±0.03	6.78±0.04	0,077

Conclusion: In patients with true LMCA bifurcation stenosis the strategy of “two stents” might be considered as preferable due to significant lower prevalence of in-stent restenosis and TLR, as well as to significant increase in global myocardial contractility.