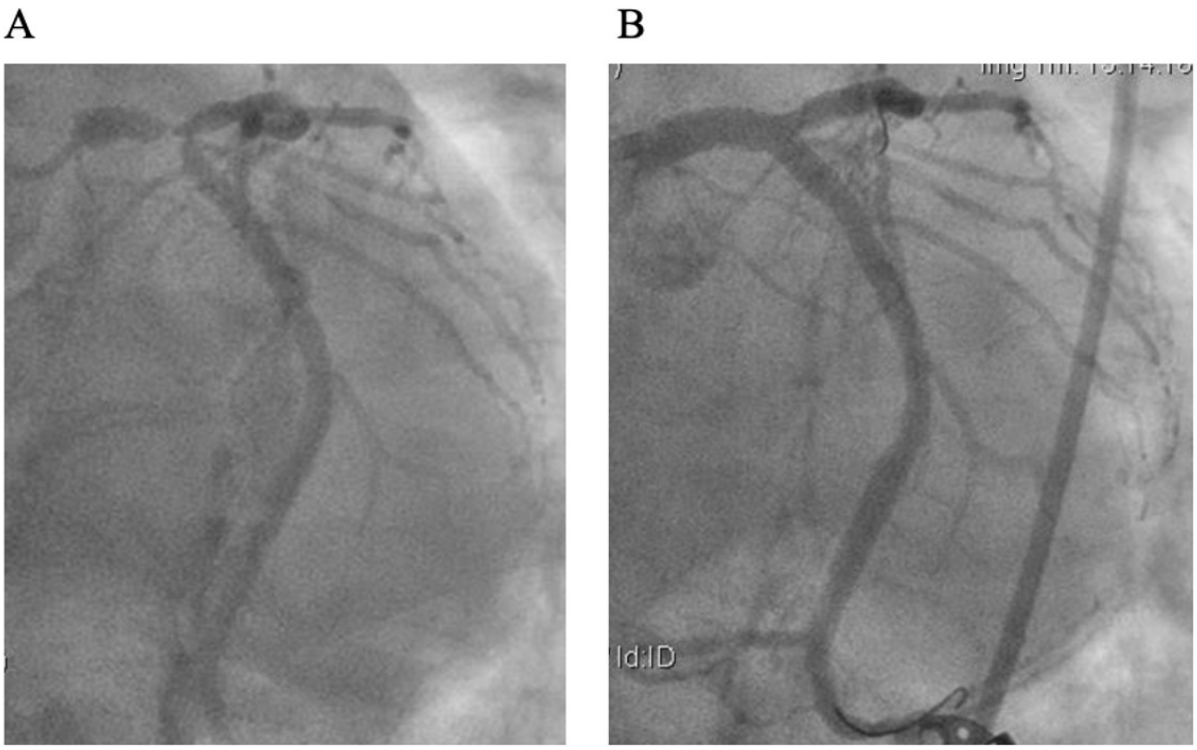
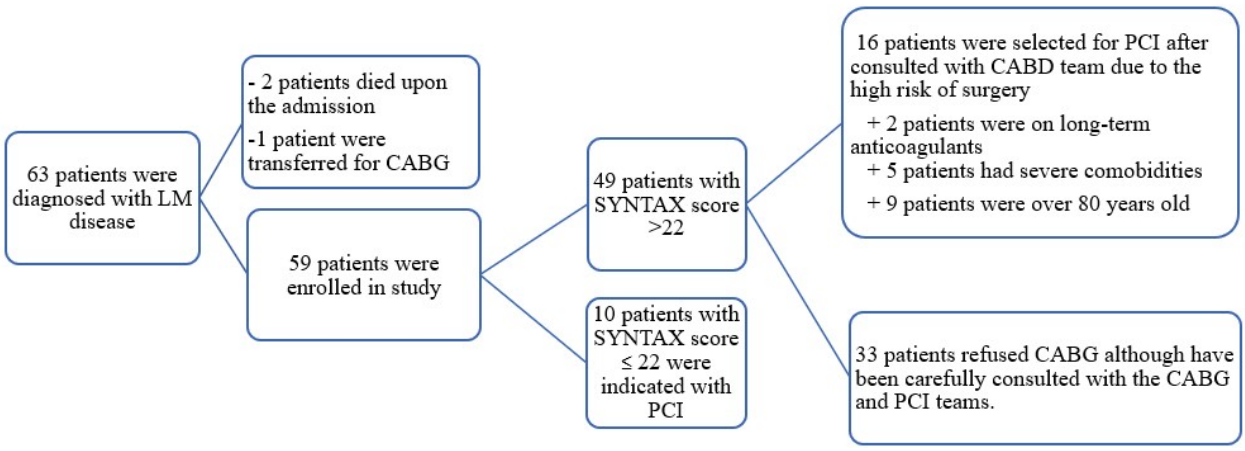
Supplementary Figure 1. Left Main Intervention

A. Coronary angiogram showed left main coronary disease with severe ostial left anterior descending stenosis and proximal circumflex disease; the Medina type is 1:1:1.

B. Left main coronary intervention with Culotte technique. After the intervention, no residual stenosis in the left main coronary segment was noticed and Thrombolysis in MI-3 flow was confirmed.



Supplementary Figure 2. Study Flowchart



CABG = coronary artery bypass graft; LM = left main; PCI = percutaneous coronary intervention.

Supplementary Table 1 Patient's Characteristics and Clinical Features

Baseline patient characteristics	**Patients (n=59)**
Age (years)	66.7 ±1.5
Sex (male)	72.9%
Smoking	59%
BMI	23.4 ±0.4
Obesity	18.6%
Hypertension	69.5%
Diabetes	42.4%
Dyslipidaemia	56%
FH	22%
Diagnosis at presentation	
ST-elevation MI	6 (10.2%)
Non-ST-elevation MI	34 (57.6%)
Unstable angina	9 (15.3%)
Chronic coronary syndrome	10 (16.9%)
Accumulated mortality	11 (18.6%)
In-hospital	3 (5.1%)
30-day	1 (1.7%)
1-year	7 (11.9%)
In-hospital days	12.4 ±1.3

Supplementary Table 2 Laboratory Data

Laboratory test	Result (n= 59)
Haemoglobin (g/dL)	1212 ±248
Estimated glomerular filtration rate (ml/ph)	63 (59 – 77)
Dyslipidaemia	33 (559%)
Low density Lipoprotein-c (mmol/L)	28 (2.4–3.2)
HbA_{1c} (%)	6.8 ±1.8
N-terminal pro b-type natriuretic peptide (pmol/L)	3560 (1586–4444)
Troponin I (ng/ml)	3.5 (1.8–7.6)
Ejection fraction (EF)	
>50%	41 (69.5%)
40–49%	8 (13.6%)
<40%	10 (16.9%)
ECG	
Sinus rhythm	55 (93.2%)
ST-segment elevation	37 (62%)

Supplementary Table 3. Procedure Details

	CCS (N= 10)	**ACS (N= 49)**	**p-value**
No. of vessels affected			
1 (isolated LM)	1 (10%)	1 (2%)	0.5
2 (LM+1 vessel)	2 (20%)	7 (14.3%)	
3 (LM+2 vessel)	2 (20%)	14 (28.6%)	
4 (LM+3 vessel)	5 (50%)	27 (55.1%)	
Medina classification			
1,1,1	5 (50%)	22 (50%)	0.3
1,1,0	2 (20%)	18 (36.7%)	
1,0,1	0	2 (4%)	
0,1,1	0	2 (4%)	
1,0,0	2 (20%)	5 (10.2%)	
0,1,0	0	0	
0,0,1	1 (10%)	0	
SYNTAX score	30.2 ±3.0	29.2 ±1.1	0.7
>22	8 (80%)	41 (83.7%)	0.07
≤22	2 (20%)	8 (16.3%)	
TIMI after LM stenting			
0–I	0	1 (2%)	0.2
II	0	0	
III	10 (100%)	48 (98%)	
Kissing balloons	3 (30%)	24 (51.1%)	0.04

SB stented	0	4 (8%)	<0.005
Final POT	1 (10%)	17 (35%)	0.1
MB stent diameter	3.7 ±0.08	3.6 ±0.04	0.3
MB stent length	21.2 ±2.5	24.3 ±1.2	0.2
SB stent diameter	0	2.75 ±0.1	
SB stent length	0	25.5 ±4.3	
Additional vessel stented			
LAD	4 (40%)	21 (42.9%)	0.8
LCx	1 (10%)	6 (12.2%)	
RCA	2 (20%)	12 (24.5%)	
Complication during procedure			<0.005
Residual lesion	0	0	
Vessel compromise	0	0	
Dissection inside vessel	0	2 (16.7%)	

*Chi-square test of significance (X^2)

ACS = acute coronary syndrome; CCS = chronic coronary syndrome; LAD = left anterior descending artery; LCx = left circumflex; LM = left main; MB = main branch; POT = proximal optimisation technique; TIMI = Thrombolysis in MI; RCA = right coronary artery; SB = side branch

Supplementary Table 4. MACCE outcome comparison

Study	No. of patients	SYNTAX score	Primary outcomes
SYNTAX-LM 2010[1]	705	30	MACCE: 13.7%
PRECOMBAT 2011[2]	600	25	MACCE: 8.7%, increased to 18.2% after 10 years
EXCEL 2017[3]	1905	21	MACCE 15.4% and increased to 22% after 5 years
NOBLE 2017[4]	1201	22	MACCE 28% after 5 years

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