

Table S1: Baseline Clinical and Angiographic Characteristics (MT versus Failed PCI).

	MT (n=159)	Failed PCI (n=127)	p
Clinical characteristics			
Age (years)	62.0(53.0-69.2)	57.0(50.0-65.0)	0.024
Male	119(74.8)	111(87.4)	0.008
Hypertension	109(68.6)	89(70.1)	0.781
Dyslipidemia	84(52.8)	69(54.3)	0.800
AF	6(3.8)	2(1.6)	0.447
PAD	6(3.8)	4(3.1)	1.000
Prior MI	87(54.7)	77(60.6)	0.315
Prior PCI	81(50.9)	51(40.2)	0.069
Prior stroke	8(5.0)	4(3.1)	0.430
Heart failure	23(14.5)	10(7.9)	0.083
CKD	4(2.5)	4(3.1)	1.000
COPD /asthma	0(0)	0(0)	-
Hyperuricemia	33(20.8)	24(18.9)	0.696
Smoking	84(52.8)	64(50.4)	0.682
LVEF (%)	61.0(55.0-66.2)	62.0(55.7-67.2)	0.322
BMI (kg/m ²)	26.8(24.8-28.4)	26.34(25.4-28.8)	0.580
Medications			
Aspirin	154(96.9)	126(99.2)	0.334
P2Y ₁₂ inhibitor	122(76.7)	110(86.6)	0.034
Statin	154(96.9)	125(98.4)	0.639
Nitrites	136(85.5)	110(86.6)	0.794
Beta-blocker	118(74.2)	100(78.7)	0.372
CCB	52(32.7)	32(25.2)	0.166
ACEI/ARB	93(58.5)	73(57.5)	0.863
Insulin	50(31.4)	47(37.0)	0.324
Angiographic characteristic			
CTO location			
LAD	43(27.0)	38(29.9)	0.592
LCX	59(37.1)	25(19.7)	0.001
RCA	57(35.8)	64(50.4)	0.013
Abrupt stump	85(63.4)	69(61.1)	0.702
Rentrop grade ≥2	92(67.6)	82(72.6)	0.400
Values are n(%), mean±SD or median with interquartile range. MT: medical therapy; PAD: peripheral artery disease; AF: atrial fibrillation; CKD: Chronic kidney disease; MI: myocardial infarction; COPD: Chronic obstructive pulmonary disease; PCI: percutaneous transluminal coronary intervention; LVEF: left ventricular ejection fraction; BMI: body mass index; CCB: calcium channel blocker; ACEI/ARB: angiotensin converting enzyme inhibitor/angiotensin-receptor blocker; CTO: chronic total occlusion; LAD: left anterior descending coronary artery; LCX: left circumflex artery; RCA: right coronary artery.			

Table S2 Clinical Endpoints in Subgroup Population (MT vs failed PCI)						
	MT (n=159)	failed PCI (n=127)	Unadjusted HR (95% CI)	P value	adjusted HR (95% CI)	P value
MACE ^{&}	31(21.8)	32(28.3)	0.761(0.464-1.248)	0.279	0.702(0.407-1.210)	0.202
Cardiac death	11(7.6)	4(3.5)	2.632(0.838-8.268)	0.098	3.118(0.919-10.578)	0.068
MI	6(4.6)	3(2.8)	2.113(0.528-8.459)	0.291	1.551(0.318-7.564)	0.587
All cause death	13(9.0)	7(6.1)	1.794(0.715-4.501)	0.213	2.101(0.771-5.726)	0.147
TVR	14(10.8)	25(22.9)	0.457(0.238-0.880)	0.019	0.517(0.254-1.052)	0.069

Values are n(%). Adjusted covariates include: age, CTO of LAD, chronic kidney disease, heart failure, Rentrop grade $\geq$ 2; &:MACE: major adverse cardiac event included cardiac death, MI and TVR; MT: medical therapy; TVR: target vessel revascularization; MI: myocardial infarction; CTO: chronic total occlusion; LAD: left anterior descending coronary artery; PCI: percutaneous transluminal coronary intervention; HR: hazard ratio; CI: conference interval.

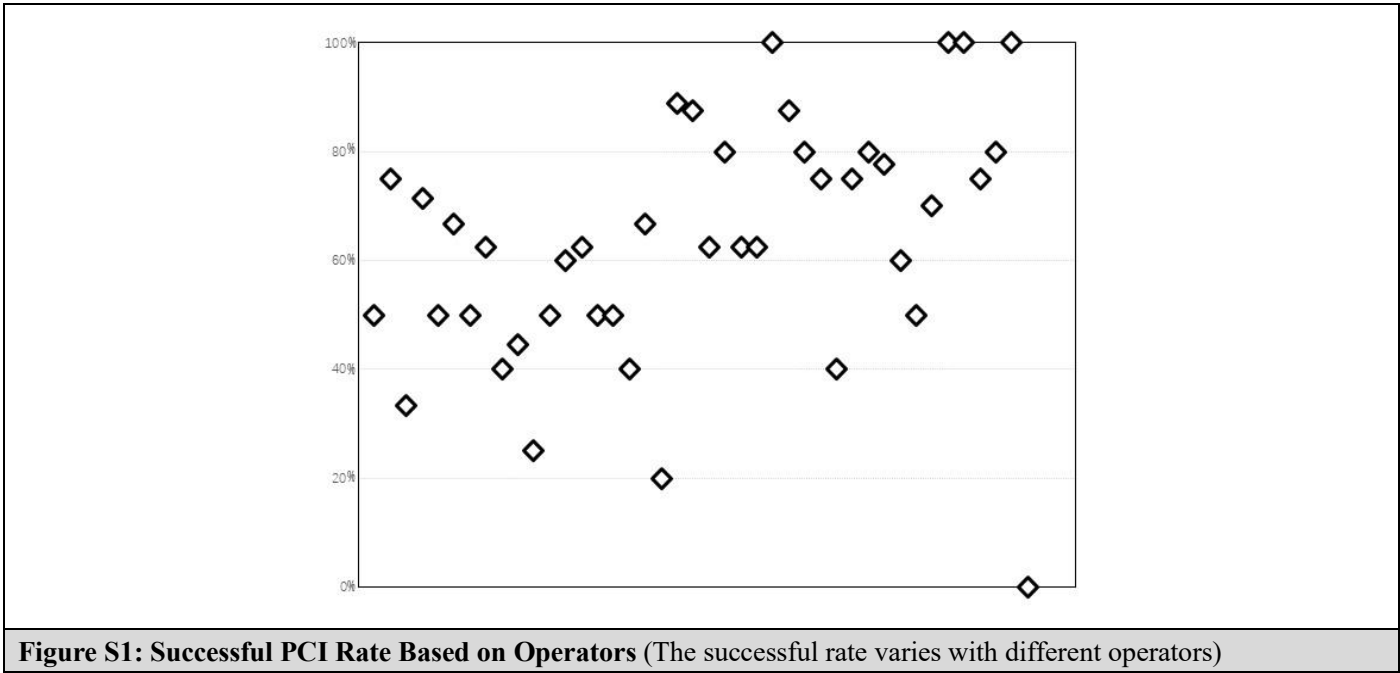


Figure S1: Successful PCI Rate Based on Operators (The successful rate varies with different operators)