

**SUPPLEMENTARY MATERIAL**

**Table 1 of the supplementary material**

Clinical Outcomes With pmLAD CTO vs Non-pmLAD CTO in the Total Population

			Univariate		Multivariable adjusted*	
	pmLAD (n = 811)	non-pmLAD (n = 736)	HR (95%CI)	P	HR (95%CI)	P
<b>Cardiac death</b>	67 (8.3)	36 (4.9)	1.67 (1.12 – 2.51)	.013	1.63 (1.08 – 2.46)	.020
<b>MI</b>	16 (2.0)	7 (1.0)	2.09 (0.86 – 5.08)	.10	1.83 (0.74 – 4.52)	.19
<b>Repeat revascularization</b>	111 (13.7)	103 (14.0)	0.97 (0.74 – 1.27)	.82	1.06 (0.81 – 1.39)	.68
<b>MACE</b>	173 (21.3)	138 (18.8)	1.13 (0.90 – 1.41)	.29	1.20 (0.95 – 1.50)	.12

95%CI, 95% confidence interval; CKD, chronic kidney disease; CTO, chronic total occlusion; HR, hazard ratio; MACE, major adverse cardiac event; MI, myocardial infarction; pmLAD: proximal or middle left anterior descending

Values are expressed as No. (%). \*Adjusted covariates include age, acute coronary syndrome, previous PCI, diabetes, CKD, grade of collateral flow, and initial treatment strategy

**Table 2 of the supplementary material**

Estimated Hazard Ratio of Clinical Outcomes After Accounting for Competing Risk Stratified by OMT vs PCI in the Propensity-matched Cohort

Propensity-matched population	HR (95%CI)	<i>P</i>
<b>pmLAD CTO (n = 522)</b>		
<i>Cardiac death</i>	0.50 (0.27 – 0.92)	.026
<i>MI</i>	2.30 (0.69 – 8.92)	.23
<i>Repeat revascularization</i>	0.65 (0.42 – 1.02)	.06
<i>MACE*</i>	0.53 (0.28 – 0.99)	.046
<b>non-pmLAD CTO (n = 516)</b>		
<i>Cardiac death</i>	0.62 (0.31 – 1.25)	.62
<i>MI</i>	0.66 (0.11 – 3.94)	.64
<i>Repeat revascularization</i>	0.77 (0.31 – 1.25)	.26
<i>MACE*</i>	0.53 (0.49 – 1.21)	.11

HR and *P* values were estimated with the use of a Fine-Grey subdistribution hazards model; *a*) cardiac death (competing risk = non-cardiac death), *b*) MACE (which included cardiac death) (competing risk = non-cardiac death), and *c*) each component of MACE (competing risk = all-cause death).

95%CI, 95% confidence interval; CTO, chronic total occlusion; HR, hazard ratio; MACE, major adverse cardiac events; MI, myocardial infarction; PCI, percutaneous coronary intervention; pmLAD, proximal or middle left anterior descending coronary artery.

\*MACE included cardiac death, MI, and repeat revascularization.

**Table 3 of the supplementary material**

Clinical Outcomes With OMT or Failed PCI vs Successful PCI in the Total Population (Per-protocol Analysis)

Propensity-matched population	OMT or failed PCI	Successful PCI	HR (95%CI)	<i>P</i>
<b>pmLAD CTO (n = 522)</b>				
<i>Cardiac death</i>	40 (12.6)	10 (4.9)	0.35 (0.18 – 0.71)	.003
<i>MI</i>	5 (1.6)	2 (1.0)	0.59 (0.11 – 3.04)	.53
<i>Repeat revascularization</i>	54 (17.0)	23 (11.2)	0.54 (0.33 – 0.89)	.014
<i>MACE*</i>	89 (28.1)	32 (15.6)	0.47 (0.31 – 0.70)	.001
<b>non-pmLAD CTO (n=516)</b>				
<i>Cardiac death</i>	16 (5.0)	6 (3.1%)	0.57 (0.22 – 1.45)	.57
<i>MI</i>	3 (0.9)	2 (1.0%)	1.04 (0.17 – 6.20)	.97
<i>Repeat revascularization</i>	46 (14.3)	27 (5.7%)	0.92 (0.57 – 1.49)	.92
<i>MACE*</i>	62 (19.3)	33 (16.9%)	0.83 (0.54 – 1.27)	.39

95%CI, 95% confidence interval; CTO, chronic total occlusion; HR, hazard ratio; MACE, major adverse cardiac events; MI, myocardial infarction; OMT, optimal medical therapy; PCI, percutaneous coronary intervention; pmLAD, proximal or middle left anterior descending coronary artery.

\*MACE included cardiac death, MI, and repeat revascularization.