SUPPLEMENTARY DATA

Table 1 of the supplementary data. Study inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Clinical	
Age > 18 y	Age < 18 y
Diagnosis of ischemic heart disease	Inability to give informed consent
	Female with child-bearing potential
	Life expectancy < 12 mo
	Factors making clinical follow-up difficult (such as no fixed address)
	Poor cardiac function as defined by global left ventricular ejection fraction $\leq$ 30%
	Recent (< 7 d) ST-segment elevation myocardial infarction
	Recent (< 48 h) non–ST-segment elevation myocardial infarction
	Prior ST-segment elevation myocardial infarction in the territory supplied by the vessel with the intermediate lesion under investigation
	Severe myocardial hypertrophy (interventricular septum thickness > 15 mm, ECG Sokolow's criteria fulfilled)
	Severe valvular heart disease
	Significant platelet count alteration (< 100 000 cells/mm^3 or > 700 000 cells/mm^3)
	Gastrointestinal bleeding requiring surgery or blood transfusions within the previous 4 wk
	History of clotting pathology
	Known hypersensitivity to aspirin, heparin, or contrast dye
	Advanced renal failure with a glomerular filtration rate < 30 mL/min
Angiographic	
Single-vessel disease with angiographically intermediate coronary lesion OR	Multivessel disease with one or more untreated angiographically critical stenosis or coronary occlusion
Multivessel disease with only angiographically intermediate coronary lesion OR	Lesions in coronary artery bypass grafts
Multivessel disease with a least 1 angiographically intermediate coronary lesion and already treated angiographically critical stenosis	Multivessel disease requiring coronary aortic bypass graft intervention

Table 2 of the supplementary data. Baseline patient characteristics according to lesion complexity and treatment arm

	Complex (n = 199)			Noncomplex (n = 151)		
	OCT (n = 99)	FFR (n = 100)	*P*	OCT (n = 75)	FFR (n = 76)	*P*
Age, y	70 [64-76]	69 [62-75]	.579	69 [62-76]	68 [62-75]	.984
Male sex	77 (77.8)	78 (78.0)	.970	56 (74.7)	50 (65.8)	.233
BMI, kg/m^2	26 [23-29]	26 [24-28]	.675	28 [24-29]	27 [24-29]	.173
Diabetes mellitus	37 (37.4)	33 (33.0)	.519	18 (24.0)	20 (26.3)	.743
Hypertension	86 (86.9)	81 (81.0)	.260	65 (86.7)	67 (88.2)	.782
Dyslipidemia	77 (77.8)	67 (67.0)	.089	53 (70.7)	53 (69.7)	.901
Smoking	38 (38.4)	42 (42.0)	.603	28 (37.3)	27 (35.5)	.818
Family history of CAD	37 (37.4)	26 (26.0)	.085	22 (29.3)	26 (34.2)	.520
Chronic kidney disease	19 (19.2)	21 (21.0)	.750	12 (16.0)	11 (14.5)	.794
Previous PCI	40 (40.4)	35 (35.0)	.432	36 (48.0)	37 (48.7)	.933
Previous CABG	5 (5.1)	1 (1.0)	.095	0 (0.0)	3 (3.9)	.082
Previous MI	27 (27.3)	17 (17.0)	.081	25 (33.3)	16 (21.1)	.090
Clinical presentation			.502			.704
ACS	18 (18.2)	22 (22.0)		13 (17.3)	15 (19.7)	
CCS	81 (81.8)	78 (78.0)		62 (82.7)	61 (80.3)	
LVEF, %	60 [54-64]	60 [55-61]	.277	60 [53-65]	60 [55-61]	.134
Management						
Patient treated with PCI	57 (57.6)	41 (41.0)	.019	34 (45.3)	18 (23.7)	.005
Contrast media, mL	300 ± 134	266 ± 152	.098	251 ± 118	205 ± 105	.014
CI-AKI	10 (10.1)	2 (2.0)	.016	5 (6.7)	1 (1.3)	.092
Dialysis	0 (0.0)	0 (0.0)	.999	0 (0.0)	0 (0.0)	.999

ACS, acute coronary syndrome; BMI, body mass index; CABG, coronary artery bypass grafting; CCS, chronic coronary syndrome; FFR, fractional flow reserve; MI, myocardial infarction; LVEF, left ventricular ejection fraction; OCT, optical coherence tomography; PCI, percutaneous coronary intervention.

The data are expressed as No. (%), mean ± standard deviation, or median [25th-75th percentile].

*Defined according to the Acute Kidney Injury Network definition.

Table 3 of the supplementary data. Prevalence and overlap of the individual components of the complex lesion definition

	Long lesion (n = 55)	Severely calcified lesion (n = 53)	Bifurcation lesion (n = 169)
Long lesion	17 (30.9)	4 (7.5)	25 (14.8)
Severely calcified lesion	4 (7.2)	22 (41.5)	18 (10.7)
Bifurcation lesion	25 (45.5)	18 (34.0)	117 (69.2)
All criteria	9 (16.4)	9 (17.0)	9 (5.3)

The data are presented as No. (%).

Table 4 of the supplementary data. Vessel characteristics according to lesion complexity and treatment arm

	Complex (n = 212)			Noncomplex (n = 208)		
	OCT (n = 102)	FFR (n = 110)	*P*	OCT (n = 98)	FFR (n = 110)	*P*
FFR value						
FFR baseline	-	0.83 [0.79-0.88]	-	-	0.86 [0.82-0.91]	-
FFR baseline ≤0.80	-	42 (38.2)	-	-	22 (20.0)	-
OCT parameters						
MLA, mm^2	2.39 [1.80-3.20]	-	-	2.88 [2.32-3.55]	-	-
AS, %	65 [59-73]	-	-	65 [57-70]	-	-
AS ≥75%	19 (18.8)	-	-	12 (12.5)	-	-
AS 50%-75% and MLA < 2.5 mm^2	35 (34.7)	-	-	28 (29.2)	-	-
AS 50%-75% and plaque rupture	5 (5.0)	-	-	3 (3.1)	-	-
Failure in crossing the lesion with the tool	1 (1.0)	0 (0.0)	.298	1 (1.0)	0 (0.0)	.288
Investigated lesion location			.555			.117
LAD	76 (74.5)	85 (77.3)		52 (53.1)	64 (58.2)	
LCx	11 (10.8)	14 (12.7)		13 (13.3)	22 (20.0)	
RCA	15 (14.7)	11 (10.0)		33 (33.7)	24 (21.8)	
Lesions treated with PCI	60 (58.8)	42 (38.2)	.003	39 (39.8)	22 (20.0)	.002
Number of stent(s)	1.0 [1.0-2.0]	1.0 [1.0-2.0]	.969	1.0 [1.0-1.0]	1.0 [1.0-1.0]	.418
Stent length, mm	34 [26-46]	36 [22-49]	.764	22 [18-28]	26 [18-30]	.163
Balloon predilatation	57 (95.0)	34 (82.9)	.046	20 (52.6)	16 (72.7)	.126
Balloon postdilatation	54 (90.0)	36 (87.8)	.728	34 (89.5)	15 (75.0)	.148
*Calcium modification techniques**	0 (0.0)	0 (0.0)	1.000	0 (0.0)	0 (0.0)	1.000
Long lesion	27 (26.5)	28 (25.5)	.866	0 (0.0)	0 (0.0)	-
Treated with PCI	n = 27, 19 (70.4)	n = 28, 18 (64.3)	.173	-	-	-
Severely calcified lesion	24 (23.5)	29 (26.4)	.634	0 (0.0)	0 (0.0)	-
Treated with PCI	n = 24, 13 (54.2)	n = 29, 7 (24.1)	.694	-	-	-
Bifurcation lesion	81 (79.4)	88 (80.0)	.915	0 (0.0)	0 (0.0)	-
Treated with PCI	n = 81, 48 (59.3)	n = 88, 37 (42.0)	.220	-	-	-

Treated with double-stenting technique	n = 81, 2 (2.5)	n = 88, 0 (0.0)	.138	-	-	-
Acute side-branch occlusion during PCI	n = 48, 0 (0.0)	n = 37, 0 (0.0)	1.000	-	-	-
Poststenting assessment according to protocol	n = 60, 51 (85.0)	n = 42, 26 (61.9)	.008	n = 39, 33 (84.6)	n = 22, 14 (63.6)	.061
Poststenting optimal result	n = 51, 30 (58.8)	n = 26, 12 (46.2)	.291	n = 33, 21 (63.6)	n = 14, 9 (64.3)	.966
PCI optimization	n = 51, 21 (41.2)	n = 26, 5 (19.2)	.054	n = 33, 12 (36.4)	n = 14, 1 (7.1)	.041
Further balloon dilation	n = 51, 19 (37.3)	n = 26, 5 (19.2)	.106	n = 33, 11 (33.3)	n = 14, 1 (7.1)	.060
Additional stent implantation	n = 51, 5 (9.8)	n = 26, 1 (3.8)	.356	n = 33, 3 (9.1)	n = 14, 1 (7.1)	.827
Final optimal result	n = 45, 45 (100.0)	n = 24, 14 (58.3)	< .001	n = 32, 32 (100.0)	n = 14, 9 (64.3)	< .001

FFR, fractional flow reserve; LAD, left anterior descending artery; LCx, left circumflex artery; MI, myocardial infarction; OCT, optical coherence tomography; PCI, percutaneous coronary intervention; RCA, right coronary artery.

The data are expressed as No. (%) or median [25th-75th percentile].

*Rota-ablation, ShockWave, or cutting balloon.

Table 5 of the supplementary data. Clinical outcomes according to lesion complexity

	Complex (n = 212)	Noncomplex (n = 208)	Hazard ratio (95%CI)	*P*
MACE	44 (20.8)	29 (13.9)	1.52 (0.95-2.44)	.078
Cardiac death or MI	10 (4.7)	7 (3.4)	1.42 (0.54-3.73)	.476
All-cause death	27 (12.7)	17 (8.2)	1.57 (0.86-2.88)	.145
Cardiac death	6 (2.8)	5 (2.4)	1.19 (0.36-3.90)	.775
MI	5 (2.4)	2 (1.0)	2.48 (0.48-12.76)	.279
TVR	17 (8.0)	12 (5.8)	1.40 (0.67-2.94)	.368
Due to side-branch restenosis	1 (0.5)	0 (0.0)	-	-

MACE, major adverse cardiac events; MI, myocardial infarction; TVR, target vessel revascularization.
Unless otherwise indicated, the data are expressed as No. (%).

Table 6 of the supplementary data. Subgroup analysis for the primary outcome according to angiographic lesion complexity and PCI/deferral

	Deferred				PCI				$P_{interaction}$
	OCT	FFR	HR (95%CI)	*P*	OCT	FFR	HR (95%CI)	*P*	
Complex	7/42 (16.7)	22/68 (32.4)	0.47 (0.20-1.11)	.085	8/60 (13.3)	7/42 (16.7)	0.79 (0.29-2.18)	.651	.451
Noncomplex	13/59 (22.0)	8/88 (9.1)	2.63 (1.09-6.34)	.032	6/39 (15.4)	2/22 (9.1)	1.65 (0.33-8.19)	.538	.614

Unless otherwise indicated, the data are expressed as No. (%).