

Supplementary Table 1: Comparison of clinical baseline characteristics and medication data of 7712 included patients exclusively underwent BP-DES or DP-DES implantation according to PCI complexity.

Variables	Complex PCI (<i>n</i>=4882)	Non-complex PCI (<i>n</i>=2830)	<i>P</i> values
Age (years)	58.48±10.36	57.57±10.21	< 0.001
Male	3793 (77.7)	2145 (75.8)	0.056
BMI (kg/m ²)	25.96±3.18	25.88±3.16	0.288
Risk factors			
Diabetes mellitus	1519 (31.1)	784 (27.7)	0.002
Hypertension	3165 (64.8)	1737 (61.4)	0.002
Hypercholesterolemia	3301 (67.6)	1893 (66.9)	0.513
Number of current smokers	2777 (56.9)	1600 (56.5)	0.768
Family history of CAD	1202 (24.6)	708 (25.0)	0.916
CVD	518 (10.6)	263 (9.3)	0.065
PAD	143 (2.9)	56 (2.0)	0.011
COPD	101 (2.1)	76 (2.7)	0.164
Clinical history			
Previous MI	933 (19.1)	488 (17.2)	0.042
Previous PCI	1070 (21.9)	775 (27.4)	< 0.001
Previous CABG	212 (4.3)	85 (3.0)	0.003
LVEF	62.71±7.33	63.11±7.28	0.021
Serum creatinine (mL/min)	75.98±16.08	74.61±15.32	< 0.001
HbA1c	6.20 (5.90–7.00)	6.20 (5.80–6.90)	0.001
Clinical presentation			
NSTEMI-ACS	2222 (45.5)	1398 (49.4)	0.001
STEMI	626 (12.8)	403 (14.2)	0.078

Stable angina	2034 (41.7)	1029 (36.4)	< 0.001
Medication			
Aspirin	4831 (99.0)	2787 (98.5)	0.067
Clopidorel	4816 (98.6)	2784 (98.4)	0.333
ACEI/ARB	2560 (52.4)	1441 (50.9)	0.194
GPII/IIIa inhibitors	735 (15.1)	250 (8.8)	< 0.001
Statin	4687 (96.0)	2713 (95.9)	0.764
β-blocker	4462 (91.4)	2494 (88.1)	< 0.001
Calcium antagonist	2372 (48.6)	1348 (47.6)	0.419
Nitrate	4765 (97.6)	2758 (97.5)	0.686

Continuous values are expressed as mean±standard deviation, median (Q1–Q3) and categorical variables as number (percentage). ACEI/ARB: Angiotensin converting enzyme inhibitor/angiotensin receptor blockers; BMI: Body mass index; BP-DES: Biodegradable polymer drug-eluting stents; CABG: Coronary artery bypass graft; CAD: Coronary artery disease; CVD: Cerebrovascular disease; COPD: Chronic obstructive pulmonary disease; DP-DES: Durable polymer drug-eluting stents; GPII/IIIa inhibitors: Glycoprotein IIb/IIIa inhibitors; HbA1c: Glycated hemoglobin; LVEF: Left ventricular ejection fraction; MI: Myocardial infarction; NSTEMI: Non-segment elevation- acute coronary syndrome; PAD: Peripheral vascular disease; PCI: Percutaneous coronary intervention; STEMI: Segment elevation myocardial infarction.

Supplementary Table 2: Comparison of angiographic and procedural characteristics of 7712 included patients exclusively underwent BP-DES or DP-DES implantation according to PCI complexity.

Variables	Complex PCI (<i>n</i> =4882)	Non-complex PCI (<i>n</i> =2830)	<i>P</i> values
Number of lesion treated per patient	1.54±0.69	1.00±0	NA
Number of vessel treated per patient	1.33±0.51	1.00±0	NA
Number of stents implanted per patient	2.13±0.91	1.00±0	NA
SYNTAX score	12.00 (7.00–18.00)	7.00 (3.00–10.00)	< 0.001

Mean stent diameter (mm)	3.00 (2.75–3.25)	3.00 (2.75–3.50)	0.065
Total stent length (mm)	46.00 (32.00–61.00)	23.00 (18.00–28.00)	< 0.001
Mean stent length (mm)	23.00 (18.50–27.00)	23.00 (18.00–28.00)	< 0.001
Type B2/C lesion	4165 (85.3)	1624 (57.4)	< 0.001
Ostial lesions	1083 (22.2)	183 (6.5)	< 0.001
<i>de novo</i> lesion	4652 (95.3)	2733 (96.6)	0.007
predilatation	4745 (97.2)	2600 (91.9)	< 0.001
postdilatation	3471 (71.1)	1781 (62.9)	< 0.001
Overlap	2909 (59.6)	78 (2.8)	< 0.001
extraction	140 (2.9)	82 (2.9)	0.940
IVUS application	338 (6.9)	62 (2.2)	< 0.001
IABP application	68 (1.4)	16 (0.6)	0.001
Type of stent implanted			0.009
BP-DES	1051 (21.5)	539 (19.0)	
DP-DES	3831 (78.5)	2291 (81.0)	

Continuous values are expressed as mean±SD, median (Q1–Q3) and categorical variables as number (percentage). BP-DES: Biodegradable polymer drug-eluting stent; DP-DES: Durable polymer drug-eluting stent; IABP: Intra-aortic balloon pump; IVUS: Intravascular ultrasound; NA: Not applicable; PCI: Percutaneous coronary intervention; SYNTAX: The synergy between percutaneous coronary intervention with Taxus and cardiac surgery.

Supplementary Table 3: Clinical baseline characteristic and medication data between BP-DES and DP-DES in 7712 included patients undergoing complex and non-complex PCI.

Variables	Complex PCI (<i>n</i> =4,882)		<i>P</i> values	Non-complex PCI (<i>n</i> =2830)		<i>P</i> values
	BP-DES (<i>n</i> =1051)	DP-DES (<i>n</i> =3831)		BP-DES (<i>n</i> =539)	DP-DES (<i>n</i> =2291)	
Age(years)	59.19±10.10	58.28±10.42	0.012	58.00±10.42	57.47±10.16	0.283
Male	804 (76.5)	2989 (78.0)	0.293	396 (73.5)	1749 (76.3)	0.161

BMI (kg/m ²)	25.97±3.10	25.96±3.20	0.956	25.85±3.20	25.89±3.15	0.841
Risk factors						
Diabetes mellitus	283 (26.9)	1236 (32.3)	0.001	148 (27.5)	636 (27.8)	0.888
Hypertension	702 (66.8)	2463 (64.3)	0.132	350 (64.9)	1387 (60.5)	0.059
Hypercholesterolemia	677 (64.4)	2624 (68.5)	0.012	354 (65.7)	1539 (67.2)	0.506
Number of current smokers	617 (58.7)	2160 (56.4)	0.178	319 (59.2)	1281 (55.9)	0.168
Family history of CAD	226 (21.5)	976 (25.5)	0.027	145 (26.9)	563 (24.6)	0.280
CVD	124 (11.8)	394 (10.3)	0.158	56 (10.4)	207 (9.0)	0.330
PAD	28 (2.7)	115 (3.0)	0.565	9 (1.7)	47 (2.1)	0.567
COPD	25 (2.4)	76 (2.0)	0.117	11 (2.0)	65 (2.8)	0.303
Clinical history						
Previous MI	211 (20.1)	722 (18.8)	0.369	105 (19.5)	383 (16.7)	0.127
Previous PCI	212 (20.2)	858 (22.4)	0.122	172 (31.9)	603 (26.3)	0.009
Previous CABG	39 (3.7)	173 (4.5)	0.257	9 (1.7)	76 (3.3)	0.044
LVEF	62.47±7.35	62.78±7.33	0.235	62.47±7.74	63.26±7.16	0.026
Serum creatinine (ml/min)	76.88±16.45	75.73±15.97	0.040	75.53±15.52	74.40±15.27	0.121
HbA1c	6.20 (5.90–7.00)	6.20 (5.90–7.00)	0.816	6.20 (5.80–6.90)	6.20 (5.80–6.90)	0.549
Clinical presentation						<0.001
NSTE-ACS	493 (46.9)	1729 (45.1)		239 (44.3)	1159 (50.6)	—
STEMI	148 (14.1)	478 (12.5)		96 (17.8)	307 (13.4)	—
Stable angina	410 (39.0)	1624 (42.4)		204 (37.8)	825 (36.0)	—
Medication						
Aspirin	1042 (99.1)	3789 (98.9)	0.498	535 (99.3)	2252 (98.3)	0.101
Clopidorel	1040 (99.0)	3776 (98.6)	0.333	532 (98.7)	2252 (98.3)	0.505
ACEI/ARB	568 (54.1)	1992 (52.0)	0.220	292 (54.2)	1149 (50.2)	0.085

GPII/IIIa inhibitors	210 (20.0)	525 (13.7)	< 0.001	71 (13.2)	179 (7.8)	< 0.001
Statin	1015 (96.6)	3672 (95.8)	0.288	511 (94.8)	2202 (96.1)	0.169
β-blocker	967 (92.0)	3495 (91.2)	0.425	475 (88.1)	2019 (88.1)	0.999
Calcium antagonist	505 (48.0)	1867 (48.7)	0.694	243 (45.1)	1105 (48.2)	0.188
Nitrate	1030 (98.0)	3735 (97.5)	0.340	528 (98.0)	2230 (97.3)	0.409

Continuous values are expressed as mean±standard deviation, median (Q1–Q3) and categorical variables as number (percentage). ACEI/ARB: Angiotensin converting enzyme inhibitor/angiotensin receptor blockers; BMI: Body mass index; BP-DES: Biodegradable polymer drug-eluting stents; CABG: Coronary artery bypass graft; CAD: Coronary artery disease; CVD: Cerebrovascular disease; COPD: Chronic obstructive pulmonary disease; DP-DES:Durable polymer drug-eluting stents; GPII/IIIa inhibitors: Glycoprotein IIb/IIIa inhibitors; HbA1c: Glycated hemoglobin; LVEF: Left ventricular ejection fraction; MI: Myocardial infarction; NSTE-ACS: Non-segment elevation- acute coronary syndrome; PAD: Peripheral vascular disease; PCI: Percutaneous coronary intervention; STEMI: Segment elevation myocardial infarction; –: Not available.

Supplementary Table 4: Angiographic and procedural characteristics between BP-DES and DP-DES in patients undergoing complex and non-complex PCI.

Variables	Complex PCI (n=4882)		P values	Non-complex PCI (n=2,830)		P values
	BP-DES (n=1051)	DP-DES (n=3831)		BP-DES (n=539)	DP-DES (n=2291)	
Number of lesion treated	1.55±0.68	1.53±0.69	0.502	1.00±0	1.00±0	NA
Number of vessel treated	1.33±0.51	1.33±0.52	0.868	1.00±0	1.00±0	NA
Number of stents implanted	1.55±0.68	1.53±0.69	0.497	1.00±0	1.00±0	NA
SYNTAX score	12.00 (7.00–18.00)	12.00 (7.00–18.00)	0.533	7.00 (3.00–11.00)	7.00 (3.00–10.00)	0.429
Mean stent diameter(mm)	3.00 (2.75–3.25)	3.00 (2.75–3.25)	0.992	3.00 (2.70–3.50)	3.00 (2.75–3.50)	< 0.001
Total stent length(mm)	47.00 (35.00–64.00)	46.00 (31.00–60.00)	< 0.001	24.00 (18.00–28.00)	20.00 (18.00–28.00)	< 0.001
Mean stent length(mm)	24.00 (19.33–28.00)	23.00 (18.00–26.33)	< 0.001	24.00 (18.00–28.00)	20.00 (18.00–28.00)	< 0.001
Type B2/C lesion	897 (85.3)	3268 (85.3)	0.972	336 (62.3)	1288 (56.2)	0.010

Ostial lesions	221 (21.0)	862 (22.5)	0.309	26 (4.8)	157 (6.9)	0.085
<i>de novo</i> lesion	1016 (96.7)	3636 (94.9)	0.017	524 (97.2)	2209 (96.4)	0.361
predilatation	1015 (96.6)	3730 (97.4)	0.170	491 (91.1)	2109 (92.1)	0.462
postdilatation	779 (74.1)	2692 (70.3)	0.015	361 (67.0)	1420 (62.0)	0.031
Overlap	632 (60.1)	2277 (59.4)	0.683	16 (3.0)	62 (2.7)	0.738
extraction	34 (3.2)	106 (2.8)	0.421	25 (4.6)	57 (2.5)	0.007
IVUS application	73 (6.9)	265 (6.9)	0.974	7 (1.3)	55 (2.4)	0.116
IABP application	14 (1.3)	54 (1.4)	0.849	4 (0.7)	12 (0.5)	0.543

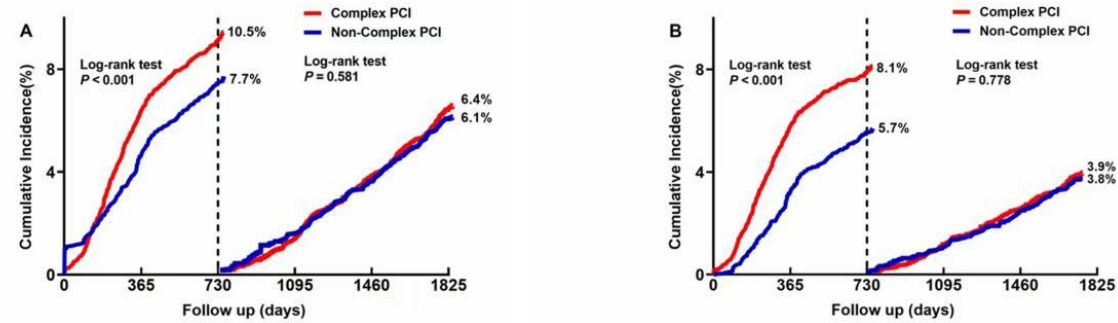
Continuous values are summarized as mean $\pm$ SD, median (Q1-Q3) and categorical variables as number (percentage). BP-DES: Biodegradable polymer drug-eluting stent; DP-DES: Durable polymer drug-eluting stent; IABP: intra-aortic balloon pump; IVUS: Intravascular ultrasound; NA: Not applicable; PCI: Percutaneous coronary intervention; SYNTAX: The synergy between percutaneous coronary intervention with Taxus and cardiac surgery.

Supplementary Table 5: Comparison of unadjusted 2- and 5-year clinical outcomes between BP-DES and DP-DES in patients according to PCI complexity.

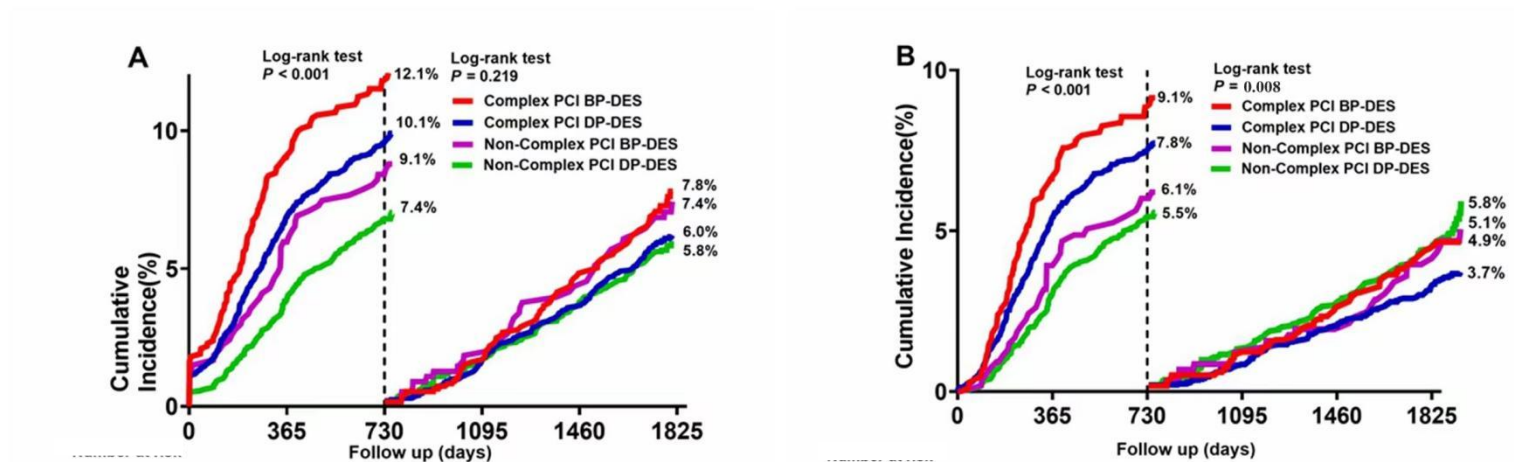
Endpoints	Events, <i>n</i> (%)		Crude HR (95% CI)	Crude <i>P</i> values	Events, <i>n</i> (%)		Crude HR (95% CI)	Crude <i>P</i> values	Interaction <i>P</i> values
	Complex PCI				Non-complex PCI				
	BP-DES	DP-DES			BP-DES	DP-DES			
	(<i>n</i> =1051)	(<i>n</i> =3831)			(<i>n</i> =539)	(<i>n</i> =2291)			
2-year outcomes									
Death	16 (1.5)	45 (1.2)	1.301 (0.736–2.302)	0.366	8 (1.5)	22 (1.0)	1.557 (0.693–3.498)	0.283	0.722
Cardiac death	7 (0.7)	28 (0.7)	0.915 (0.400–2.095)	0.833	3 (0.6)	13 (0.6)	0.987 (0.281–3.464)	0.984	0.920
MI	22 (2.1)	81 (2.1)	0.993 (0.620–1.591)	0.976	12 (2.2)	28 (1.2)	1.834 (0.933–3.607)	0.079	0.145

Total coronary revascularization	96 (9.1)	300 (7.8)	1.183 (0.940–1.488)	0.153	33 (6.1)	127 (5.5)	1.120 (0.764–1.643)	0.562	0.803
Stroke	16 (1.5)	50 (1.3)	1.174 (0.668–2.061)	0.577	3 (0.6)	28 (1.2)	0.457 (0.139–1.503)	0.197	0.160
Death or MI	36 (3.4)	111 (2.9)	1.187 (0.815–1.728)	0.372	19 (3.5)	47 (2.1)	1.736 (1.019–2.957)	0.043	0.254
MACE	127 (12.1)	387 (10.1)	1.215 (0.994–1.485)	0.057	49 (9.1)	169 (7.4)	1.254 (0.912–1.723)	0.163	0.878
Bleeding	62 (5.9)	264 (6.9)	0.856 (0.649–1.129)	0.270	33 (6.1)	157 (6.9)	0.901 (0.619–1.311)	0.586	0.830
5-year outcomes									
Death	49 (4.7)	133 (3.5)	1.324 (0.954–1.837)	0.093	21 (3.9)	66 (2.9)	1.351 (0.827–2.208)	0.229	0.941
Cardiac death	26 (2.5)	72 (1.9)	1.299 (0.829–2.033)	0.254	9 (1.7)	46 (2.0)	0.831 (0.407–1.697)	0.611	0.303
MI	72 (6.9)	244 (6.4)	1.069 (0.822–1.391)	0.617	35 (6.5)	130 (5.7)	1.151 (0.792–1.671)	0.461	0.754
Total coronary revascularization	163 (15.5)	497 (13.0)	1.209 (1.013–1.443)	0.035	67 (12.4)	241 (10.5)	1.195 (0.912–1.567)	0.197	0.939
Stroke	45 (4.3)	115 (3.0)	1.425 (1.009–2.011)	0.044	13 (2.4)	71 (3.1)	0.776 (0.429–1.401)	0.399	0.081
Death or MI	117 (11.1)	355 (9.3)	1.192 (0.968–1.472)	0.099	55 (10.2)	193 (8.4)	1.217 (0.902–1.642)	0.199	0.912
MACE	225 (21.4)	677 (17.7)	1.227 (1.055–1.427)	0.008	94 (17.4)	338 (14.8)	1.196 (0.952–1.503)	0.125	0.852
Bleeding	116 (11.0)	531 (13.9)	0.786 (0.643–0.961)	0.019	64 (11.9)	304 (13.3)	0.894 (0.683–1.171)	0.417	0.595

P values < 0.05 indicate statistical significance. ACS: Acute coronary syndrome; BP-DES: Biodegradable polymer drug-eluting stent; CI: Confidence interval; DP-DES: Durable polymer drug-eluting stent; HR: Hazard ratio; MACE: Major adverse cardiovascular events; MI: Myocardial infarction; PCI: Percutaneous coronary intervention.



Supplementary Figure 1: Landmark analysis to distinguish between primary and secondary outcomes of patients exclusively underwent BP-DES or DP-DES implantation that occurred before and after a 2-year follow-up based on PCI complexity. (A) MACE and (B) Total coronary revascularization. BP-DES: Biodegradable polymer drug-eluting stents; DP-DES: Durable polymer drug-eluting stents; MACE: Major adverse cardiac events; PCI: Percutaneous coronary intervention.



Supplementary Figure 2: Landmark analysis to distinguish between primary and secondary outcomes of patients exclusively underwent BP-DES or DP-DES implantation that occurred before and after a 2-year follow-up based on PCI complexity and DES generation. (A) MACE and (B) Total repeat revascularization. BP-DES: Biodegradable polymer drug-eluting stents; CPCI: Complex percutaneous coronary intervention; DES: Drug-eluting stents; DP-DES: Durable polymer drug-eluting stents; MACE: Major adverse cardiac events; PCI: Percutaneous coronary intervention.