

Supplementary material

Januszek R, Pawlik A, Rzeszutko Ł, et al. Clinical outcomes in patients undergoing complex, high-risk percutaneous coronary intervention and haemodynamic support with intra-aortic balloon versus Impella pump: Real-life single-centre preliminary results. *Kardiol Pol.* 2022.

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Table S1. Patients characteristics

		Impella	IABP	Total	P-value
Age, years		67 (62–74.3)	76 (66.5–84)	68.5 (62.8–80)	0.01
Gender, male		24 (85.7%)	17 (77.3%)	41 (82%)	0.48
BMI, kg/m ²		26 (23.9–31.2)	26.1 (24.3–30.3)	26 (24.3–30.5)	0.89
Clinical presentation	CCS	19 (67.9%)	11 (50%)	30 (60%)	0.22
	UA	0 (0%)	2 (9.1%)	2 (4%)	
	NSTEMI	4 (14.3%)	6 (27.3%)	10 (20%)	
	HF	5 (17.9%)	3 (13.6%)	8 (16%)	
Left ventricle EF, %		20.8 (6.5)	33.6 (16.3)	26.4 (13.4)	0.005
		20 (15 ÷ 24.8)	32.5 (17.5 ÷ 46.3)	22.5 (15 ÷ 31.3)	
Baseline hemoglobin, g/dl		13.4 (12.7–14.8)	13 (11.7–15)	13.3 (12–14.8)	0.73
Baseline creatinine, μmol/l		99.8 (83.6–117)	87 (79–109)	97.1 (80.2–114)	0.14
Diabetes mellitus type 2		11 (39.3%)	9 (40.9%)	20 (40%)	0.90
Hypertension		21 (75%)	14 (63.6%)	35 (70%)	0.38

COPD	4 (14.3%)	0 (0%)	4 (8%)	0.12
Dyslipidemia	16 (57.1%)	10 (45.5%)	26 (52%)	0.41
Atrial fibrillation	6 (21.4%)	5 (22.7%)	11 (22%)	1
Chronic kidney disease	3 (10.7%)	2 (9.1%)	5 (10%)	1
Peripheral artery disease	5 (17.9%)	2 (9.1%)	7 (14%)	0.44
Prior PCI	16 (57.1%)	5 (22.7%)	21 (42%)	0.014
Prior CABG	2 (7.1%)	1 (4.6%)	3 (6%)	1
Prior MI	13 (46.4%)	6 (27.3%)	19 (38%)	0.17
Significant valve disease	2 (7.1%)	0 (0%)	2 (4%)	0.5
Alcohol dependence	4 (14.3%)	1 (4.6%)	5 (10%)	0.37
Euroscore II, %	2.8 (2–3.8)	2.5 (1.8–5.2)	2.7 (1.9–5)	0.73

Data presented as median (interquartile range [IQR]) for continuous variables and counts (percentages) for nominal variables

Abbreviations: BMI, body mass index; CABG, coronary artery bypass grafting; CCS, chronic coronary syndrome; COPD, chronic obstructive pulmonary disease; HF, heart failure; IABP, intra-aortic balloon counter pulsation; MI, myocardial infarction; NSTEMI, non-ST-elevation myocardial infarction; PCI, percutaneous coronary intervention; UA, unstable angina

Table S2. Procedural indices

		Impella	IABP	Total	<i>P</i> -value
LVAD	LFA	21 (77.8%)	15 (71.4%)	36 (75%)	0.61
	RFA	6 (22.2%)	6 (28.6%)	12 (25%)	
Arteries treated	LMCA	12 (42.9%)	11 (50%)	23 (46%)	0.61
	MVD (no LMCA)	7 (25%)	6 (27.3%)	13 (26%)	0.86

	1-vessel disease	9 (32.1%)	5 (22.7%)	14 (28%)	0.46
Drug eluting stents number	0	2 (7.1%)	1 (4.6%)	3 (6%)	0.44
	1	7 (25%)	5 (22.7%)	12 (24%)	
	2	7 (25%)	10 (45.5%)	17 (34%)	
	3	7 (25%)	5 (22.7%)	12 (24%)	
	4	4 (14.3%)	1 (4.6%)	5 (10%)	
	5	1 (3.6%)	0 (0%)	1 (2%)	
Total stent length, cm		5.8 (3.9–9.1)	5.1 (3.5–7.9)	5.8 (3.7–8.1)	0.58
Drug-eluting balloons	0	24 (88.9%)	20 (100%)	44 (93.6%)	0.14
	1	1 (3.7%)	0 (0%)	1 (2.1%)	
	2	2 (7.4%)	0 (0%)	2 (4.3%)	
Rotablation		6 (21.4%)	10 (45.5%)	16 (32%)	0.07
IVL		3 (10.7%)	0 (0%)	3 (6%)	0.25
FFR		5 (18.5%)	0 (0%)	5 (10.2%)	0.06
IVUS		5 (18.5%)	15 (68.2%)	20 (40.8%)	<0.001
OCT		19 (70.4%)	2 (9.1%)	21 (42.9%)	<0.001
Contrast, ml		360 (280–500)	260 (200–350)	300 (220–400)	0.002
Radiation, Gy		516 (266–1137)	489 (292–906)	507 (280–1077)	0.76
Periprocedural pharmacotherapy					
Vasopressors		6 (21.4%)	2 (9.1%)	8 (16%)	0.44
UFH, IU × 10 ³		10.5 (8.5–11)	8.3 (7.5–9.5)	9 (8–10.5)	0.002

LVAD removal	Deferred	1 (3.6%)	5 (22.7%)	6 (12%)	0.07
	Immediate	27 (96.4%)	17 (77.3%)	44 (88%)	

Data are presented as median (interquartile range [IQR]) for continuous variables and counts (percentages) for nominal variables

Abbreviations: FFR, fractional flow reserve; HNF, unfractionated heparin; IABP, intra-aortic balloon counter pulsation; IVL, intravascular lithotripsy; IVUS, intravascular ultrasonography; LFA, left femoral artery; LMCA, left main coronary artery; LVAD, left ventricle device; OCT, optical coherent tomography; RFA, right femoral artery