

Supplementary Table 1. Baseline characteristics of participants with left main disease. Values are shown as n (%) or median (IQR). ACS=acute coronary syndrome, BMI=body mass index, CABG=coronary artery bypass grafting, CKD=chronic kidney disease, eGFR=estimated glomerular filtration rate, HF=heart failure, LM=left main disease, LVEF=left ventricular ejection fraction, MI=myocardial infarction, NSTEMI=non-ST elevation MI, PCI=percutaneous coronary intervention, STEMI=ST elevation MI, TIA=transient ischaemic attack. *Advanced CKD was defined as eGFR \leq 30 mL/min/1.73m² or chronic dialysis.

	Non-LM n=78	LM n=24	p-value
Age, years	68 (62 - 75)	74 (69 - 76)	0.034
Male	52 (67%)	17 (71%)	0.700
BMI, kg/m ²	23.6 (21.8 - 27.8)	22.7 (21.0 - 24.9)	0.200
Diabetes	52 (67%)	21 (88%)	0.048
Hypertension	65 (83%)	24 (100%)	0.035
Dyslipidaemia	65 (83%)	22 (92%)	0.500
Current smoker	14 (18%)	2 (8.3%)	0.300
Chronic dialysis	13 (17%)	5 (21%)	0.800
Stroke or TIA	12 (15%)	4 (17%)	>0.900
Peripheral arterial disease	2 (2.6%)	2 (8.3%)	0.200
Prior MI	31 (40%)	13 (54%)	0.200
Prior PCI	60 (77%)	18 (75%)	0.800
Prior CABG	6 (7.7%)	2 (8.3%)	>0.900
Acute coronary syndrome			0.081
Non-ACS	52 (67%)	13 (54%)	
Unstable angina	7 (9.0%)	2 (8.3%)	
NSTEMI	12 (15%)	9 (38%)	
STEMI	7 (9.0%)	0 (0%)	
Acute HF	9 (12%)	4 (17%)	0.500
Emergency PCI	4 (5.1%)	0 (0%)	0.600
Vessel involvement			0.300
Single	7 (9.0%)	0 (0%)	
Double	13 (17%)	3 (12%)	
Triple	58 (74%)	21 (88%)	

In-stent restenosis lesion	23 (30%)	6 (26%)	0.700
LVEF, %	50 (38 - 60)	39 (28 - 48)	0.010
eGFR, mL/min/1.73m ²	69 (49 - 95)	44 (10 - 78)	0.009
Advanced CKD*	13 (17%)	10 (42%)	0.010

Supplementary Table 2. Baseline characteristics of participants with under-expanded stents. Values are shown as n (%) or median (IQR). ACS=acute coronary syndrome, BMI=body mass index, CABG=coronary artery bypass grafting, eGFR=estimated glomerular filtration rate, HF=heart failure, LVEF=left ventricular ejection fraction, MI=myocardial infarction, NSTEMI=non-ST elevation MI, PCI=percutaneous coronary intervention, STEMI=ST elevation MI, TIA=transient ischaemic attack, UES = under-expanded stent. *Advanced CKD was defined as eGFR \leq 30 mL/min/1.73m² or chronic dialysis.
[†] 2 out of 102 patients did not have sufficient information on ISR status hence were excluded from the ISR analysis.

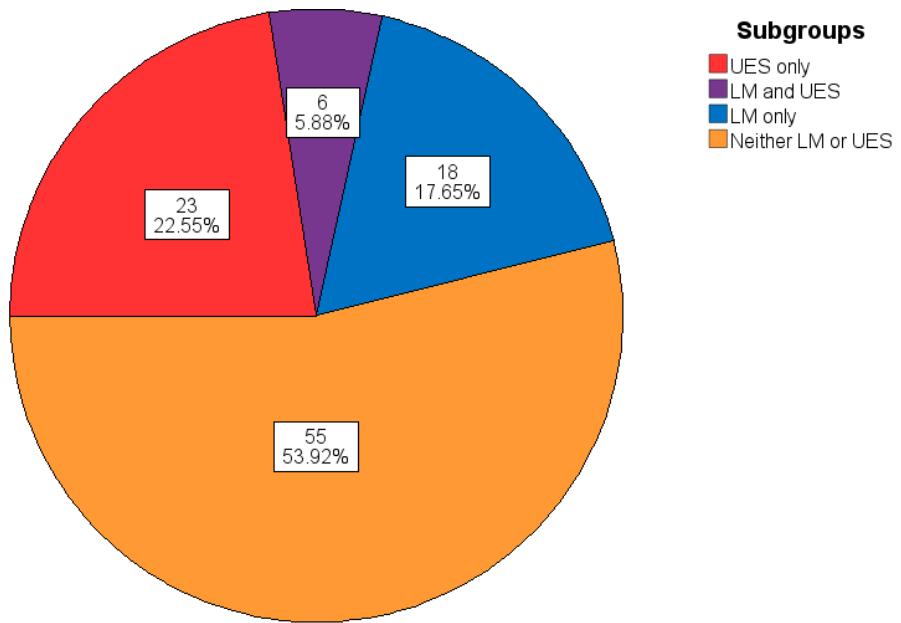
	Non-UES n=71	UES [†] n=29	p-value
Age, years	69 (63 - 75)	70 (65 - 78)	0.300
Male	48 (68%)	19 (66%)	0.800
BMI, kg/m ²	23.0 (21.0 - 26.8)	24.4 (22.1 - 27.9)	0.200
Diabetes	48 (68%)	24 (83%)	0.130
Hypertension	61 (86%)	27 (93%)	0.500
Dyslipidaemia	60 (85%)	26 (90%)	0.800
Current smoker	12 (17%)	4 (14%)	>0.900
Chronic dialysis	6 (8.5%)	11 (38%)	<0.001
Stroke or TIA	13 (18%)	3 (10%)	0.400
Peripheral arterial disease	2 (2.8%)	2 (6.9%)	0.600
Prior MI	26 (37%)	18 (62%)	0.020
Prior PCI	48 (68%)	29 (100%)	<0.001
Prior CABG	4 (5.6%)	4 (14%)	0.200
Acute coronary syndrome			0.400
Non-ACS	46 (65%)	19 (66%)	
Unstable angina	5 (7.0%)	4 (14%)	
NSTEMI	14 (20%)	6 (21%)	
STEMI	6 (8.5%)	0 (0%)	
Acute HF	11 (15%)	2 (6.9%)	0.300
Emergency PCI	3 (4.2%)	0 (0%)	0.600
Vessel involvement			0.800
Single	6 (8.5%)	1 (3.4%)	
Double	11 (15%)	5 (17%)	

Triple	54 (76%)	23 (79%)	
Left main lesion	17 (24%)	6 (21%)	0.700
LVEF, %	45 (34 - 59)	45 (39 - 56)	0.800
eGFR, mL/min/1.73m ²	68 (48 - 89)	58 (10 - 73)	0.015
Advanced CKD*	11 (15%)	11 (38%)	0.014

Supplementary Table 3. Logistic regression of left main disease on 1-year MACE after intravascular lithotripsy. Multivariable regression was performed using variables with $p < 0.100$ on univariable regression. Propensity score adjustment was performed using clinically significant variables - age, sex, diabetes mellitus, dialysis, prior MI, LVEF, ACS presentation, and left main disease. ACS=acute coronary syndrome; BMI=body mass index; CABG=coronary artery bypass grafting; CI=confidence interval; HF=heart failure; LVEF=left ventricular ejection fraction; MI=myocardial infarction; OR=odds ratio; PCI=percutaneous coronary intervention; TIA=transient ischaemic attack

	Univariable regression			Multivariable regression			Propensity score adjusted		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Left Main lesion	3.60	1.12, 11.5	0.028	3.08	0.87, 10.9	0.077	3.77	0.95, 15.7	0.060
Age	1.02	0.96, 1.09	0.550	—	—	—	—	—	—
Female sex	2.05	0.66, 6.31	0.210	—	—	—	—	—	—
BMI	1.02	0.92, 1.13	0.640	—	—	—	—	—	—
Diabetes Mellitus	2.92	0.74, 19.5	0.180	—	—	—	—	—	—
Hypertension	2.24	0.39, 42.4	0.460	—	—	—	—	—	—
Current smoker	0.80	0.12, 3.35	0.790	—	—	—	—	—	—
Advanced CKD	2.75	0.82, 8.72	0.088	—	—	—	—	—	—
Prior MI	1.18	0.38, 3.58	0.770	—	—	—	—	—	—
Prior PCI	1.27	0.36, 5.97	0.730	—	—	—	—	—	—
Prior CABG	2.08	0.28, 10.2	0.400	—	—	—	—	—	—
Stroke or TIA	1.42	0.30, 5.27	0.620	—	—	—	—	—	—

Peripheral arterial disease	2.00	0.10, 16.9	0.560	—	—	—	—	—	—
ACS	—	—	—	—	—	—	—	—	—
Non-ACS	—	—	—	—	—	—	—	—	—
Unstable angina	2.81	0.36, 15.3	0.260	2.76	0.35, 15.8	0.3	—	—	—
NSTEMI	3.93	1.09, 14.3	0.034	3.09	0.78, 12.1	0.1	—	—	—
STEMI	1.64	0.08, 12.1	0.670	2.17	0.10, 17.7	0.5	—	—	—
Acute HF	1.93	0.39, 7.43	0.370	—	—	—	—	—	—
Emergency PCI	0.00	-	>0.99	—	—	—	—	—	—
LVEF	0.99	0.95, 1.04	0.730	—	—	—	—	—	—
Fluoroscopy time	1.02	0.99, 1.04	0.200	—	—	—	—	—	—
Contrast volume	1.01	1.00, 1.01	0.060	1.01	1.00, 1.01	0.11	—	—	—



Supplementary Figure 1. Distribution of the prespecified subgroups. Pie-chart showing the distribution of subjects amongst the subgroups. LM=left main disease, UES=under-expanded stent due to heavy coronary calcifications.