Methods 295 patients who underwent PPCI from 1/9/2017 - 4/6/2018 at Nottingham University Hospitals had their records reviewed retrospectively. The patients were assigned to one of 3 groups: 1) Clopidogrel Loading (generally because of HBR), 2) Prasugrel Loading-HBR and 3) Prasugrel Loading non-HBR. The Bleeding Academic Research Consortium (BARC) score was used to evaluate the bleeding episodes during admission and out to 6 weeks at clinic review. Mortality data were also collected.

Results 35 patients received Clopidogrel (group 1). The incidence of any BARC bleeding was 8.6% and in-hospital mortality was 20%. 54 patients with HBR received Prasugrel (group 2). The incidence of any BARC bleeding was 16.7% ($p=0.27$ by chi squared compared to group 1) and in-hospital mortality was 7.4% ($p=0.078$ by chi squared compared to group 1). 206 patients without HBR characteristics received Prasugrel loading (group 3). The incidence of any BARC bleeding was 6.3%. In-hospital mortality was 5.3%. (Table 1).

Conclusions HBR patients with Prasugrel loading before undergoing PPCI have a numerical increase in the risk of bleeding as compared to those receiving Clopidogrel loading, but this was not statistically significant. Furthermore, most of the bleeding was relatively minor (BARC1-22.2%, BARC2-55.6%, BARC3a-22.2%). However, there was a numerically lower in-hospital mortality for patients with HBR loaded with Prasugrel compared to Clopidogrel (although not quite reaching statistical significance). There are limitations with this retrospective analysis and prospective randomised trials looking at Prasugrel loading for patients with HBR undergoing PPCI would be useful. Potentially, STEMI protocols could be significantly simplified if Prasugrel loading for all-comers was deemed to be safe and efficacious.

Conflict of Interest None

60 LONG TERM OUTCOMES OF ROTATIONAL ATHERECTOMY IN PATIENTS WITH SEVERE LEFT VENTRICULAR SYSTOLIC DYSFUNCTION AND CHRONIC KIDNEY DISEASE: A 10-YEAR UNITED KINGDOM TERTIARY CENTRE EXPERIENCE

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Introduction Coronary artery calcification (CAC) is commonly seen in patients undergoing percutaneous coronary intervention (PCI) in the United Kingdom (UK). An aging population with risk factors such as diabetes and chronic kidney disease (CKD) have contributed to the rise in the prevalence of CAC. Despite advancement in PCI and alternative plaque modifying technology, rotational atherectomy (RA) remains an important adjunct to facilitate stent delivery. The UK records the highest use of RA in Europe, with a rate of 3.1% of total PCI. We report the 10-year experience of RA in a large UK tertiary hospital.

Method This was a single tertiary centre, retrospective study of prospectively collected data on 213 patients who underwent RA PCI between October 2010 to February 2020. Procedural success and complications were assessed. The clinical outcomes evaluated were: target lesion revascularisation (TLR), readmission with heart failure, acute coronary syndrome (ACS) within 1 year, 30-day mortality and 18-month mortality.

Subgroup analysis of outcomes in patients aged more than 80, severe left ventricular dysfunction and chronic kidney disease was performed.

Results Patients had a mean age of 72.9 ± 8.6 years. 77.9% ($n=166$) were male. 67.6% ($n=144$) had hypertension, 35.7% ($n=76$) had diabetes, 9.4% ($n=20$) were actively smoking, 6.6% ($n=14$) had CKD 4-5, and 15% ($n=32$) had severe left ventricular systolic dysfunction (LVSD). 51.2% ($n=109$) had prior MI, 34.7% ($n=74$) had previous PCI and 20.2% ($n=43$) previously had coronary artery bypass grafts. Indications were: acute coronary syndrome (52.6%), stable angina (41.3%) and bailout during STEMI (6.1%). 75% were discussed at the MDT prior to RA, and 25% were ad-hoc PCI. Predominant access was via the radial artery (74.6%), using

Kaplan-Meier survival curve of patients with chronic kidney disease

Abstract 60 Figure 1 Kaplan-Meier survival curves of patients with CKD

Kaplan-Meier survival curve of patients with LVEF <35% and LVEF ≥35%

Abstract 60 Figure 2 Kaplan-Meier survival curves of patients with LVEF <35%

Abstract 60 Table 1 List of complications

Complications	N(%)
No reflow	5 (2.3)
Coronary perforation	9 (4.2)
Aortic dissection	1 (0.5)
Burr entrapment	3 (1.4)
Severe bleeding*	1 (0.5)
Stent thrombosis	2 (0.9)
Peri-procedural stroke	0 (0)
Immediate death	1 (0.5)

Values are N (%).

*Bleeding complications as defined by Type 3-5 Bleeding Academic Research Consortium criteria (BARC).

Abstract 60 Table 2 Clinical outcomes

Outcomes	All patients N=213	Severe LVSD (EF<35%) N=32	CKD 4/5 (eGFR<30) N=14	Patients above 80 years of age N=53
Target vessel revascularisation	3 (1.4)	1 (3)	0 (0)	0 (0)
Rehospitalisation with MI in 1 year	17 (8)	1 (3)	2 (14.3)	4 (7.5)
Rehospitalisation with heart failure in 1 year	5 (2.3)	4 (12.5)	1 (7)	1 (1.9)
30 day mortality	7 (0.5)	0 (0)	1 (7)	2 (3.8)
18 month mortality	28 (13.1)	8 (25)	5 (35.7)	9 (17)
Major adverse cardiovascular events (MACE)	38 (1.8)	8 (25)	5 (35.7)	9 (17)

Values are N (%).

MACE defined as composite of target vessel revascularisation, rehospitalisation with MI in 1 year, 30-day mortality and 18 month mortality.

6F sheaths (60.6%). 1.5mm burr was most frequently used (63.4%) but in 14.6% of cases, burr upsize was required. Additional equipment such as cutting balloons (4.7%), intra-vascular ultrasound (13.6%), microcatheters (58.2%), temporary pacing wires (2.3%) and intra-aortic balloon pumps (1.4%) were used. Complexity of procedures ranged from RA of unprotected left main stem (14.6%), more than 1 vessel RA (2.8%), chronic total occlusions (5.2%) and in-stent restenosis cases (0.9%). Mean stent diameter was 3.5 ± 0.8 mm and mean stent length was 37.6 ± 23.4 mm. Stents were successfully delivered in 96.2% of cases, with a complication rate of 10.3% (table 1). At 18 months, we observed no significant difference in mortality between the age groups ($p=0.26$). However, patients with eGFR less than 30 (35.7%, $p=0.004$) and ejection fraction <35% (17%, $p=0.03$) undergoing RA had a significantly higher mortality rate at 18 months (figure 1,2).

Conclusions Our study suggest that severe LVSD and CKD 4-5 may be a predictor for worse outcomes among rotablation patients. However, advanced age does not appear to be associated with poorer outcomes.

Conflict of Interest None

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THE INCONSISTENT CHOICES OF INOTROPIC AND VASOPRESSORS AT THE FRONT DOOR IN PATIENTS WITH ISCHAEMIC CARDIOGENIC SHOCK AND ITS IMPACT ON IN-HOSPITAL MORTALITY

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Background Despite no evidence of survival benefit, inotropes and vasopressors continue to be routinely used in the setting of acute myocardial infarction with cardiogenic shock (CS). ESC recommends noradrenaline as vasopressor and dobutamine as inotrope of choice. These are only class IIb recommendations with level B/C evidence. Yet on admission, these agents are initiated almost invariably by intensivists. We believe such prescriptions are inconsistent amongst intensivists and linked with adverse outcomes. After all, inattentive use increases the risk of infarct expansion and ventricular arrhythmias. We also hypothesize that some

patients with initial CS stabilize after revascularization without needing vasoactive support and are associated with lower mortality rates.

Method In this single-centre retrospective analysis of 116 patients with ischaemic CS, we examined the type of vasoactive agents initiated on admission and their respective baseline characteristics and angiography data (table 1). Four treatment groups were identified (vasopressors- noradrenaline and metaraminol; inotropes- adrenaline, dobutamine and dopamine; combination; no treatment), and analysed in relation to in-hospital mortality by adjusted multivariable logistic regression. We also performed a subgroup analysis of the same outcome for individual drugs and their combinations.

Results All vasoactive agents were decided by on-call intensivists. Overall, patients were aged 68 ± 13 years, with average systolic BP (SBP) 71 ± 16 mmHg. As expected, prescriptions of vasoactive agents were highly variable: vasopressors (16%), inotropes (15%), combination (34%) or no treatment (34%). Overall inpatient mortality was 43%. Patients on vasopressors ($p=0.015$), inotropes ($p=0.029$) or combination ($p=0.002$) were significantly more likely to die than those without treatment. Indeed, the latter group had a lower proportion of out-of-hospital arrests and marginally higher SBP. Compared to no treatment, adrenaline and metaraminol significantly increased the odds ratio of in-patient death by 3.82 (CI 1.49-9.79, $p=0.005$) and 2.9 (CI 1.23-6.97 $p=0.016$) respectively. In contrast, there was a trend of the noradrenaline group to be lower risk (OR 0.96) albeit non-significant. There were no differences with dobutamine or dopamine. A combination of adrenaline-dobutamine was associated with increased in-patient mortality ($p=0.009$) (table 2).

Conclusion This study confirms the inconsistent use of vasopressors and inotropes at the front door in patients with acute MI and CS. This needs to be more aligned to address the disparity between ESC guidance and intensivist practice. Metaraminol with its ease of use peripherally is associated with a 3-fold increase in inpatient mortality. This study also reminds us that not all ischaemic CS cases are sustained since with prompt revascularization, vasoactive agents and their associated

Abstract 61 Table 1 Baseline clinical characteristics and in-hospital mortality

	Vasopressor (n=19)	Inotrope (n=18)	Combination (n=39)	No treatment (n=40)	P value*
Demographic					
Age in years (Mean±SD)	64 ± 13	76 ± 15	64 ± 12	70 ± 13	NS
Gender (% male)	84%	67%	83%	70%	NS
BMI (Mean±SD)	28.2 ± 5.0	25.8 ± 3.9	27.7 ± 4.7	27.7 ± 5.8	NS
Medical history					
Past history of MI (%)	36%	44%	33%	40%	NS
Past history of HF (%)	26%	33%	10%	10%	NS
CKD Stage IV-V	21%	11%	8%	13%	NS
Diabetes (%)	37%	22%	28%	35%	NS
Hypertension (%)	58%	50%	54%	55%	NS
Admission presentation					
Lowest SBP mmHg** (Mean ± SD)	74 ± 11	69 ± 16	63 ± 18	78 ± 13	0.002
Heart rate, bpm (Mean ± SD)	89 ± 6	75 ± 6	94 ± 4	72 ± 4	NS
STEMI (%)	68%	100%	90%	90%	NS
Resuscitation from cardiac arrest (%)	58%	22%	51%	20%	0.005
Lactate >2 (%)	47%	33%	77%	40%	NS
Pulmonary oedema (%)	58%	44%	33%	43%	NS
LVEF >50% (n, %)	3 (16%)	2 (11%)	4 (10%)	8 (20%)	NS
LVEF ≤35% (n, %)	5 (26%)	10 (56%)	17 (44%)	12 (30%)	NS
Revascularization					
Door to balloon time in minutes (Mean ± SD)	38.4 (±10.8)	150.6 (±74)	109.8 (±28.9)	78.2 (±17.8)	NS
Triple vessel disease on coronary angiography	4 (21%)	5 (28%)	12 (31%)	16 (40%)	NS
In-hospital death, n=50	11 (58%)	10 (56%)	22 (56%)	7 (18%)	0.001

BMI: body mass index; CKD- chronic kidney disease; SBP- systolic blood pressure. *p value based on comparison between all patients treated with inotropic/vasopressor agents versus no treatment. **SBP persistent > 30 minutes from admission.