adverse effects can be avoided or used for the shortest possible duration.

Conflict of Interest None

62 A COMPARISON OF PERCUTANEOUS AND SURGICAL REVASCULARISATION STRATEGIES FOLLOWING AN EQUIPOISE DECISION IN A HEART TEAM MEETING

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Introduction Current guidelines advocate a Heart Team (HT) approach to decision making in complex coronary artery disease (CAD). Available evidence suggests that PCI is non-inferior to surgery in patients with three vessel or left main stem disease in the setting of a low-intermediate anatomical syntax score. The majority of HT discussions result in a recommendation of percutaneous coronary intervention (PCI) or coronary artery bypass surgery (CABG), however a decision is deemed to be equipoised when one revascularisation strategy is not felt to carry significant prognostic benefit. In this study we sought to evaluate clinical outcomes following an equipoise decision in a Heart Team meeting.

Methods This was a single centre retrospective study. All patients requiring intervention for structural heart disease in addition to CAD were excluded. Between January 2015 and December 2018 a total of 134 patients were deemed to be equipoise following discussion at a Heart Team meeting (7.1% of all discussions). Demographics, procedural details and clinical outcomes were obtained from our national electronic health care record. The primary outcome was the 3-year rate of major adverse cardiovascular and cerebrovascular events (MACCE). This was a composite of cardiovascular death, non-procedural myocardial infarction (MI), stroke and unplanned revascularisation.

Results A total of 108 patients underwent PCI and 26 CABG. Mean follow-up was 1177 ± 384 days in the PCI cohort and 1201 ± 349 days in the CABG cohort ($p=0.77$). Baseline demographics did not differ significantly with the exception of chronic kidney disease and CAD involving 3 vessels (tables 1 & 2). In the PCI cohort advanced calcium modification (intravascular lithotripsy or rotablation) was performed in 11.1% of procedures and intravascular imaging in 58.3%. The mean number of stents used was 3.3 ± 1.5 and total stent length was

Abstract 62 Figure 1 Kaplan-Meier curve demonstrating a comparison of 3-Year MACCE rate between revascularisation modalities

Abstract 62 Table 1 Baseline demographics

Variable	PCI (n=108)	CABG (n=26)	p value
Age- mean $\pm$ SD	66.1 $\pm$ 9.3	63.9 $\pm$ 7.0	0.26
Male Gender- n (%)	88 (81.5)	22 (84.6)	1.0
Risk Factors- n (%)			
- Hypercholesterolaemia	66 (61.1)	15 (57.7)	0.75
- Hypertension	54 (50.0)	14 (53.8)	0.73
- Diabetes Mellitus	19 (17.6)	2 (7.7)	0.36
Co-morbidities- n (%)			
- Stroke	4 (3.7)	0 (0.0)	1.0
- PVD	9 (8.3)	0 (0.0)	0.21
- COPD	13 (12.0)	3 (11.5)	1.0
- Previous MI	16 (14.8)	1 (3.8)	0.19
- Previous PCI	20 (18.5)	1 (3.8)	0.08
- Previous cardiac surgery	0 (0.0)	0 (0.0)	1.0
- CKD	19 (17.6)	0 (0.0)	0.02

Abstract 62 Table 2 Presentation and Disease Severity

Variable	PCI (n=108)	CABG (n=26)	p value
LV function- n (%)			0.40
- Normal	91 (84.3)	21 (80.8)	
- Mild	12 (11.1)	2 (14.3)	
- Moderate	4 (3.7)	3 (11.5)	
- Severe	1 (0.9)	0 (0.0)	
Presentation- n (%)			0.65
- ACS	51 (47.2)	12 (46.2)	
- Stable Angina	57 (52.8)	14 (53.8)	
Syntax Score- mean$\pm$SD			
- SS1	22.6 $\pm$ 6.7	24.4 $\pm$ 7.1	0.35
- SS2 PCI	29.0 $\pm$ 8.2	27.5 $\pm$ 6.4	0.61
- SS2 CABG	29.5 $\pm$ 10.3	26.9 $\pm$ 6.5	0.23
Syntax Tertile- n (%)			0.45
- 1	57 (52.8)	11 (42.3)	
- 2	42 (38.9)	11 (42.3)	
- 3	9 (8.3)	4 (15.4)	
LMS disease- n (%)	56 (51.9)	12 (46.2)	0.60
Disease pattern- n (%)			
- 1 vessel	8 (7.4)	0 (0.0)	0.35
- 2 vessel	49 (45.4)	8 (30.8)	0.18
- 3 vessel	51 (47.2)	18 (69.2)	0.04

97.0 ± 47.5 mm. The 3-year MACCE rate was 14.3% in the PCI cohort and 11.5% in the CABG cohort ($p=0.76$) (figure 1). 3-year cardiovascular death (PCI 2.8% vs CABG 0.0%, $p=0.39$) and unplanned revascularisation (PCI 11.5% vs CABG 7.9%, $p=0.62$) rates were numerically higher with PCI, whereas non-procedural MI (PCI 6.6% vs CABG 7.7%, $p=0.85$) and stroke (PCI 0.9% vs CABG 3.8%, $P=0.27$) rates were numerically higher with CABG. None of these differences met statistical significance. The incidence of stent thrombosis at 1-year was 1.9% in the PCI cohort. PCI resulted in a reduction in total length of stay (10.9 ± 4.9 days in the inpatient PCI vs 34.3 ± 15.5 days in the inpatient CABG cohorts, $p<0.001$).

Conclusions This study demonstrated no difference in MACCE between revascularisation modalities in patients with complex

CAD deemed to be clinically equipoised following HT discussion. These results suggest that PCI is non-inferior to CABG in this population and provide validation to the decision making process of the HT in real life.

Conflict of Interest nil

63 AN UNUSUAL CAUSE OF DYSPNOEA DIAGNOSED DURING RIGHT HEART CATHETERISATION

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Background It is common for patients with exertional dyspnoea to be referred to Cardiology for investigation. This case highlights a rare but important cause of cyanosis, diagnosed after extensive investigations.

Case Presentation A 73-year-old was referred to the Respiratory Medicine team with limiting exertional dyspnoea. Initial standard investigations proved unremarkable, with normal spirometry, CT pulmonary angiogram, V/Q scan, 6-minute walk test and normal PaO₂ on arterial blood gas sampling. The patient was then referred to Cardiology for consideration of a cardiac cause of her symptoms. Her past medical history included rheumatoid arthritis, retinal vein thrombosis and idiopathic right arm thrombosis. After her initial review by Cardiology, a decision was made to perform both a coronary angiogram and right heart catheterisation. The coronary arteries showed no significant flow limiting lesion and the pulmonary pressures were not significantly elevated with no evidence of a shunt. During the procedure, it was noted that the patient's blood was dark brown in colour (figure 1), with low systemic (66%) and pulmonary artery (48.6%) oxygen saturation as measured on the cath lab oximeter, with normal respiratory rate (12/minute). Arterial blood was mixed in a syringe with 100% oxygen, which produced no change in the colour. A full blood gas analysis was therefore undertaken, which identified a disparity between the measured PaO₂ (12.0kPa) and oxygen saturations. A haemoglobinopathy was therefore suspected, which was felt most likely to be a case of methaemoglobinemia. However, it proved not possible to measure this on the multiple point of care ABG machines, nor at the main biochemistry laboratory. The patient was subsequently investigated extensively by Haematology, ultimately identifying diagnosis of sulphaemoglobinemia. The source for the sulphated haemoglobin was due to an Epsom salt (MgSO₄) containing tonic the patient was using for constipation. The patient was treated with exchange transfusions under the care of the haematology team alongside stopping the Epsom salt tonic.

Discussion Sulphaemoglobinemia (SulfHb) is a rare haemoglobinopathy which arises due to the sulphation of haemoglobin, this results in a significantly reduced oxygen carrying capacity due to reduced affinity for oxygen (Lu et al., 1998); it is often reported that the source of exogenous sulphur is from medications, bowel pathology or occupational exposures. This case highlights the importance of right heart catheterisation as an investigation to help differentiate the causes of exertional dyspnoea and the importance of considering full blood gas analysis when the numbers do not add up.

Conclusion Sulphaemoglobinemia is a rare cause of exertional dyspnoea and should be considered in patients with a clear

Abstract 63 Figure 1

disparity between saturations measured by pulse oximetry and arterial blood sampling.

Conflict of Interest None

64 USE OF SIROLIMUS-COATED BALLOON IN DE NOVO LESIONS; MID-TERM FOLLOW-UP FROM A SINGLE-CENTRE REGISTRY

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Aims Use of drug coated balloon (DCB) in coronary intervention is escalating and the guidelines recommend its use in restenotic lesions. However, some of the recent data suggest, it can also be considered in subset of de novo lesions especially; small vessels, ostium of an important side-branch and in patients unable to tolerate dual antiplatelet therapy. Sirolimus is the drug of choice in currently available drug eluting stents. Most DCBs used elute Paclitaxel, but there is no data on Sirolimus coated DCBs. In this study, we report outcomes from the use of a Sirolimus coated balloon (SCB) in de novo coronary lesions.

Methods We included all patients treated with an SCB between April and December 2018. Outcomes measured include cardiac death, target vessel myocardial infarction, target lesion revascularisation, target vessel revascularisation and MACE (combination of cardiac death, target vessel MI and TLR).

Results During the study period, 351 patients (with 414 lesions) with de novo lesions were treated with an SCB. The mean age of patients was 65.6 ± 11.5 years, 275 (78%) were male and 39% (n=212) had diabetes. Most lesions treated were in the LAD/diagonal system (n=173, 42%). Predilatation