

Abstract 73 Figure 1 Ultrasound-guided pericardiocentesis - mean assessment scores for 4 trainees following completion of two immersive clinical simulation sessions. (max. score = 6)

data will be required to comprehensively validate it as an effective assessment tool for pericardiocentesis, during times where clinical experience is limited, immersive simulation can be an essential alternative training tool to allow trainees to meet requirements for their training and maintain clinical competencies.

Conflict of Interest None

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74 INTRA-AORTIC BALLOON PUMP INSERTION IN THE MANAGEMENT OF POST-MI CARDIOGENIC SHOCK

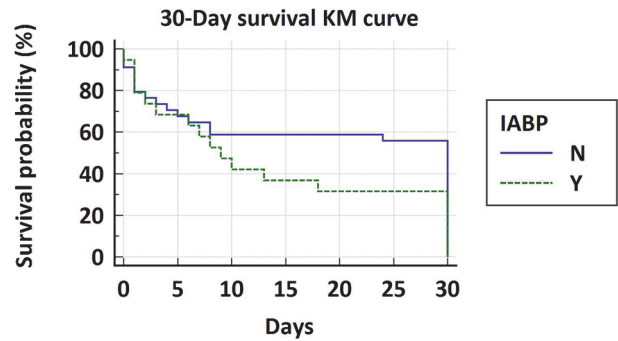
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Introduction Cardiogenic shock is a complication of acute myocardial infarction (MI) that occurs in 7-8% of patients. It is the leading cause of death post-MI, with an estimated in-patient mortality of 50%. Historically, intra-aortic balloon pump (IABP) insertion has been widely used with the aim of improving cardiac output and hence reducing mortality. However, the large, randomized controlled ‘IABP shock-II’ trial found no significant improvement in 30-day, 1-year or 6-year outcomes, including all-cause mortality. International guidelines have downgraded the IABP from a class I to class IIIa and it is therefore no longer recommended. In this study, we assess the frequency of IABP insertion for cardiogenic shock following updated international guidelines.

Methods All cases that presented with acute myocardial infarction at Queen Elizabeth Hospital between January 2018 and December 2019 (n=59) were retrospectively reviewed. There were 1904 cases and 59 had cardiogenic shock. We compared baseline characteristics, complications and mortality between cardiogenic shock patients with and without IABP insertion.

Results 19 of the 59 patients with cardiogenic shock had IABP insertion (73.7% Male, mean age 65.6± 11.3 year). Diabetes, hypertension and previous myocardial infarction were identified in 36.8%, 36.8% and 42.1% respectively. 47.4% were ventilated at the time of the procedure, with a mean pH of 7.16 and mean lactate of 8.1mmol/L. STEMI



Abstract 74 Figure 1

Abstract 74 Table 1

Intra-aortic Balloon Pump Insertion in the Management of Post-MI Cardiogenic Shock
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Variable	IABP	Non-IABP
Number of patients, n (%)	19 (35.8%)	34 (64.2%)
Mean Age (y), SD	65.6, 11.3	68.9, 11.0
Gender		
- Male, n (%)	14 (73.7%)	24 (70.6%)
- Female, n (%)	5 (26.3%)	10 (29.4%)
Ethnicity		
- Caucasian, n (%)	18 (94.7%)	24 (70.6%)
- Asian/Black, n (%)	1 (5.3%)	10 (29.4%)
Previous MI, n (%)	8 (42.1)	7 (20.6)
Family History CAD, n (%)	2 (20.0)	7 (20.6)
Smoker, n (%)		
- Current/Ex-smoker	8 (42.2%)	14 (41.2%)
- Never	4 (21.1%)	12 (35.3%)
- Unknown	7 (36.8%)	8 (23.5%)
Diabetic, n (%)		
- No	12 (63.2%)	26 (76.5%)
- Yes	7 (36.8%)	8 (23.5%)
Hypertension, n (%)	7 (36.8%)	16 (47%)
Ventilated patients, n (%)	9 (47.4%)	15 (44.1%)
pH: mean, SD	7.16, 0.15	7.19, 0.19
Lactate: Mean, SD	8.1, 4.4	6.6, 4.9
Peripheral Vascular Disease, n (%)	2 (10.5%)	4 (11.8%)
Type of MI		
- STEMI, n (%)	16 (84.2%)	28 (82.4%)
- NSTEMI, n (%)	3 (15.8%)	6 (17.6%)
Main artery involved		
- LMS, n (%)	6 (31.6%)	4 (11.8%)
- LAD, n (%)	5 (26.3%)	12 (35.3%)
- CX, n (%)	3 (15.8%)	6 (17.6%)
- RCA, n (%)	5 (26.3%)	12 (35.3%)
Lesion type, n (%)		
- A	1 (5.3%)	0 (0%)
- B1	3 (15.8%)	4 (11.8%)
- B2	2 (10.5%)	10 (29.4%)
- C	13 (68.4%)	20 (58.8%)
Number of lesions, mean (range)	2 (1 to 3)	1.5 (1 to 4)
In-hospital mortality, n (%)	13 (68.4%)	14 (41.2%)
30-Day mortality	13 (68.4%)	15 (44.1%)

was present in 84.2% of the patients, and the type C lesion was the most common finding on the angiogram (68.4%). On the other hand, 34 patients with cardiogenic shock did not receive IABP (70.6% Male, mean age 68.9± 11 year). Diabetes, hypertension and previous myocardial infarction were identified in 25.5%, 47% and 20.6% respectively. 44.1% were ventilated at the time of the procedure, with mean pH of 7.19 and mean lactate of 6.6 mmol/L. STEMI was presented in 82.4% of the patients, and the type C lesion was the most common finding on the angiogram (58.8%). Table 1. The in-hospital mortality of the IABP group was 68.4% and 41.2% in the non-IABP group. Kaplan-Meier curve showed that the 30-day mortality probability was 68.4% for the IABP group, and 44.1% for the non-IABP group. Figure 1. 11 of the 19 patients with IABP insertion had complications related to the device.

Conclusions Our small study shows that IABP support does not result in reduced in-hospital mortality in patients presenting with cardiogenic shock. Morality remains high despite advance in medical treatment.

Conflict of Interest Cardiology

75 NICE CHALLENGE THAT IS DIFFICULT TO MEET?

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Introduction Current NICE guidelines recommend early invasive strategy with coronary angiography within 72 hours of first presentation of NSTEMI to those who have an intermediate or higher risk of adverse cardiovascular events, defined as a GRACE 2.0 risk greater than 3.0%. The aim of this audit is to explore NICE guideline adherence, patient characteristics and clinical outcomes.

Methods Retrospective data from patients with a final diagnosis of NSTEMI in the months of October 2018 and January 2019 was gathered from clinical coding. Patients were stratified by their GRACE 2.0 score, which was retrospectively calculated using their clinical notes and investigations on the Integrated Clinical Environment.

Results There were 116 patients of which 90 (77.6%) had an intermediate to high risk. Data was analysed for all the 90 patients (table 1) with further analysis for those who underwent early or late inpatient coronary angiography with fisher's exact test (table 2).

From the 90 patients 44 (48.9%) underwent coronary angiography, while 46 patients (51.1%) were not suitable for invasive intervention hence treated with standard medical therapy. 18 patients (40.9%) had coronary angiography within 72 hours and 26 waited more than 72 hours. 13 (72.2%) of those who had early coronary angiography went on to have

Abstract 75 Table 1 Summary table of patients with intermediate to high risk of cardiovascular event

Clinical characteristic (N=90)	Coronary angiography >72hrs (N=18)	Coronary angiography >72hrs (N=26)	Medical management (N=46)
Demographic			
Age (mean)	70.9	74.7	82.1
Female	8 (44.4%)	10 (38.5%)	27 (58.7%)
Secondary prevention			
DAPT or antiplatelet +anticoagulation	17 (94.4%)	24 (92.3%)	37 (80.4%)
ACEi	17 (94.4%)	23 (88.5%)	27 (58.7%)
Statin	18 (100%)	25 (96.2%)	33 (71.7%)
Intervention			
PCI	13 (72.2%)	10 (38.5%)	0 (0%)
CABG	0 (0%)	3 (11.5%)	0 (0%)
Outcome			
Dead at 6 months	0 (0%)	1 (3.8%)	13 (21.7%)
Re-admitted with adverse cardiac event at 1 year	5 (27.8%)	7 (26.9%)	10 (21.7%)

Abstract 75 Table 2 Comparison of adverse cardiovascular events when coronary angiography is delayed

	Coronary angiography >72hrs (N=18)	Coronary angiography >72hrs (N=26)	p value
Death at 6 months	0 (0%)	1 (3.8%)	1.0000
Re-admitted with adverse cardiac event at 1 year	5 (27.8%)	7 (26.9%)	1.0000

percutaneous coronary intervention compared to the 10 (38.5%) patients who had delayed coronary angiography ($p=0.0018$).

Conclusion Despite expectations there was only 40.9% adherence to NICE guideline. In contrast to expectations intermediate to high-risk patients are less likely to have early invasive strategy. However, there is no difference in outcome between an early versus late invasive strategy for inpatients. Standard medical treatment is still practiced at higher number of patients with multiple comorbidities, higher age and intermediate to high risk. This shows that meeting NICE recommendations can be challenging for numerous factors beyond a clinician's control. Further data from medium sized district general hospitals with catheterization laboratory facility is needed to assess the overall ability of these centres to meet NICE recommendations.

Conflict of Interest None

76 EVOLUTION OF THE CORONARY ARTERY STENT - 35 YEARS ON (POSTER)

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Coronary artery stents have created the revolutionary field of interventional cardiology. Since their conception in 1964, to the first coronary angioplasty performed in 1977, multidisciplinary work has made what seemed like incredible and outlandish minimally invasive reopening of coronary occlusion into a commonplace mainstay of treatment, reducing mortality from cardiovascular disease globally.

Since the first stent implantation in 1986 the past 35 years of research have seen iterative progress. We have witnessed ever-evolving stent design. Drug-eluting stents resulted in a reduction in post-implantation restenosis and thrombosis previously seen with bare metal stents. Stent platforms have offered improved deliverability, circumferential strength and thinner stent struts, such that we are now able to offer tailored stent delivery to the most tortuous and bifurcated of vessels, in territories that were once seen as insurmountable. Bioresorbable stents also promised a further revolution, with hopes of complete elution of drug, resorption of the delivery mechanism, and reduced inflammatory response, but ultimately underwhelming and inferior results. As drug eluting balloons offer an alternative goal of restoring lumen patency through dilatation and targeted drug delivery, in the absence of the physical scaffold, we review the progress of percutaneous coronary intervention over the lifetime of our speciality and look