significantly higher in the clinically indicated CXR group (76.9%) rather than the routine CXR group (2.7%) ($p = <0.001$). The therapeutic efficacy was 53.8% for clinically indicated CXRs, whereas the routine CXRs had a therapeutic efficacy of 1.3% ($p = <0.001$). There was a significant association between CXR findings and whether the CXR requested was routine or not ($X^2(1) = 70.07, p <0.001$) and also management changes ($X^2(1) = 45.43, p <0.001$).

Conclusion Routine CXR in patient admitted with STEMI are often unnecessary and may add very little clinical value. On the other hand, selective post-procedural CXRs have a significantly higher diagnostic and therapeutic yield. Our study questions the rationale behind routine CXRs in the care of patients with STEMIs.

Conflict of Interest None to declare

53 THE IMPACT OF FRAILTY ON THE OUTCOMES OF PERCUTANEOUS CORONARY INTERVENTION (PCI) IN THE SETTING OF NON-ST ELEVATION MYOCARDIAL INFARCTION

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10.1136/heartjnl-2021-BCS.53

Introduction With the increase in longevity, older and frailer patients represent a growing cohort for percutaneous coronary intervention (PCI). Frail patients represent a high risk subset and have been shown to predict adverse outcomes more reliably than age. Evidence suggests that PCI may be useful in those who are at high risk for recurrent events. However, frail patients are under-represented in clinical trials with only "fitter" elderly people being included and therefore not being representative of the real-world elderly population. The decision making on intervention regarding elderly or frail patients presenting with non-ST elevation myocardial infarction (NSTEMI) is therefore difficult. The aim of the study is to evaluate the outcomes of NSTEMI PCI with age and frailty independently.

Method Frailty scoring was done retrospectively using the CSHA Frailty Scale for patients presenting to the trust from Jan'16 to Oct'16 & undergoing PCI for NSTEMI. They were stratified according to age (<80 & ≥ 80 yrs) and frailty - not frail (score of 1-3) & frail (4-6). Outcomes were length of hospital stay, complications and all-cause mortality at 1-year. The association between age and each outcome was examined using Spearman's Rank Correlation; this was also done for frailty.

Result Frailty was assessed in 106 patients with a mean age of 73.5 ± 12 years, 65% were males. 73 (69%) were not frail and 33 (31%) were vulnerable/frail. The RS between age and frailty was 0.41 indicating moderate correlation between the two variables, 20/33 (61%) of the frail group were under 80. Older and frail group both had higher rates of mortality, contrast nephropathy and longer hospital stay. When the entire cohort was analysed using Spearman's, frailty correlated more strongly with mortality ($r=0.41$; $p=0.01$) and length of stay ($r=0.3$; $p=0.04$) than age however, readmission correlated more strongly with age ($r=0.3$; $p=0.02$). The association between both age and frailty with nephropathy & bleeding was not statistically significant nor was the relationship between age and length of stay ($p>0.05$). Readmission was

higher in the frail group but not in the elderly due to non-coronary issues in most.

Conclusion Frail patients, even when younger, have similar outcomes to very old patients, particular with respect to death, kidney damage and subsequent long hospital stay in NSTEMI patients. Additionally, frail score appears to be better predictor for hospital readmission rate compared to age alone. Even in those patient under 80, frailty score appears to predict these with poorer outcomes, suggesting decision based purely on age are invalid.

Conflict of Interest None

54 CHANGING INCIDENCE AND PROCEDURE COMPLEXITY OF CORONARY ARTERY PERFORATIONS. - A 10-YEAR DATASET

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10.1136/heartjnl-2021-BCS.54

Background Coronary artery perforation (CAP) is a life-threatening complication of percutaneous coronary intervention (PCI). This study aims to identify CAP predictors using contemporary data.

Methods Retrospective cohort study on all PCIs performed at the Queen Elizabeth Hospital, Birmingham between January 2010 and October 2020. Patient demographics, comorbidities, modified Ellis perforation class and perforation treatments were collected. The CAP population was split into two cohorts (1 and 2), representing the first and second 5-year periods in the decade.

Results During a 10-year period, 9,504 PCI procedures were performed with CAP occurring in 66 cases. According to the Ellis criteria, 4.5% of CAPs were type I, 13.6% type II, 45.5% type III, and 34.8% type V. Definitive management included balloon inflation only in 27%, covered stents 20%,

Abstract 54 Table 1

	Cohort 1: (n = 23)	Cohort 2: (n = 43)	Total PCI (n = 9504)
Mean Age and Standard Deviation	69.3 +/- 11.3	70.6 +/- 13.2	64.6 +/- 12.4
Male %	52.2	69.8	72.9
Incidence %	0.55	0.81	0.69
Hypertension %	69.6	65.1	59.5
Hypercholesterolaemia %	69.6	44.2	49.7
Chronic Kidney Disease (CKD) %	0	4.65	1.90
Diabetes %	13.0	28.0	26.9
Acute Coronary Syndrome (ACS) %	87.0	65.1	68.6
CTO %	8.70	25.6	6.06
Use of GP IIb/IIIa Inhibitors %	30.4	16.3	30.0
Intravascular Ultrasound (IVUS) %	13.0	18.6	8.86
Rotablation %	4.35	9.30	3.23
Tamponade %	8.70	25.6	0.24
Hydrophilic wires %	34.8	34.9	15.0
Mortality %	8.70	16.3	2.58