women) patients respectively. Myocardial infarction was diagnosed in 6% (74/1,242) and 14% (232/1,695) of patients in the unselected and selected patient cohorts respectively. More patients had myocardial infarction ruled-out in the unselected (74% [828/1,112] versus 66% [1,102/1,678]; P < 0.001), with similar negative predictive value (99.9% [95% CI 99.7%-100%]) versus 99.7% [95% CI 99.4%-99.0%] and sensitivity (99.3% [95% CI 97.4%-100%]) versus 98.9% [95% CI 97.6%-99.9%]; Figure). In the selected cohort, more patients had intermediate troponin concentrations requiring serial testing (36% versus 29%) or had myocardial infarction diagnosed (34% versus 26%; P < 0.001 for both). In contrast, the positive predictive value for myocardial infarction was lower in unselected patients (26.1% [95% CI 21.2%-31.4%]) versus 39.9% [95% CI 35.9%-44.0%]).

Conclusion The prevalence of myocardial infarction is lower in patients with suspected acute coronary syndrome evaluated in routine practice compared to those selected to participate in a research study. Whilst more patients have myocardial infarction accurately ruled out, the positive-predictive value in those ruled in is lower resulting in more hospital admissions with elevated cardiac troponin due to other conditions.

Conflict of Interest Nothing to declare

62 INTRACORONARY IMAGING IN LEFT MAIN STENT PERCUTANEOUS CORONARY INTERVENTION HAS A CLEAR SURVIVAL BENEFIT PARTICULARLY IN MORE COMPLEX PATIENTS

1Kumail Khan, 2Zaid Ali Abdulaleh, 3Sarah Murad, 4Farhan Shahid, 5Shail Khan. 1Queen Elizabeth Hospital - University Hospital Birmingham, UK, Kumail Khan, 72 Poole Crescent, Birmingham, W11 0PB, United Kingdom; 2King Hussain Cancer Centre, Amman Jordan; 3Queen Elizabeth Hospital - University Hospital Birmingham, UK

Background Left Main Stem Disease (LMS) is prognostically important coronary artery disease that is managed either with coronary artery bypass surgery (CABG) or percutaneous coronary intervention (PCI). Use of intracoronary imaging (ICI) modalities such as intravascular ultrasound (IVUS) and optical coherence tomography (OCT) have been shown to improve outcomes with PCI revascularization. The primary objective of this study was to evaluate the impact of ICI on outcomes following LMS PCI.

Methods Retrospective observation study of 498 (5.1% of all PCI cases) patients who had undergone LMS PCI at our tertiary primary PCI centre hospital over a 11-year period between July 2010-July 2021. Data was collected from electronic medical records. Follow-up was also obtained through linkage with the Office of National Statistics.

Results The mean age at the time of enrolment was 70.7 ± 11.5 years. Majority of the patients were male 351 (70.5%), 353 (70.9%) of cases had acute coronary syndrome (ACS) presentation while the remainder were elective procedures. Mean follow-up duration was 3.75 ± 3.06 years. Survival calculated by Kaplan Meier was 70%. 87 patients (17.5%) deceased during first year of enrolment. 344 (69.1%) patients had ICI, with IVUS in 316 (63.5%) and OCT in 28 (5.6%) patients. IVUS comprised 91.9% of ICI procedures. Protected LMS (OR 0.175, 95% CI: 0.037–0.833, P-value=0.029) and the use of left ventricular mechanical support device (OR 0.324, 95% CI: 0.122–0.859, P-value=0.024) were associated with decreased odds of undergoing an ICI. Patients undergoing ICI had significantly better survival compared to those without ICI (HR: 0.54, P=0.001). Moreover, OCT showed significantly better survival compared with IVUS (HR: 0.181, P=0.017). Use of ICI was associated with better survival in patients who had Rotablation (HR: 0.455,95% CI: 0.232–0.892, P=0.022), ACS (HR: 0.523, 95% CI: 0.383–0.714, P<0.001) or comorbidities of diabetes and stroke (HR: 0.551, 95% CI: 0.337–0.807, P=0.002).

Conclusion ICI in LMS PCI has a significant survival benefit in our dataset. This is especially the case in patients presenting with ACS, those with comorbidities of Diabetes mellitus and stroke and those undergoing rotablation.

Conflict of Interest No