

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 Abdulleh, ³Sarah Murad, ³Farhan Shahid, ³Sohail Khan. ¹Queen Elizabeth Hospital - University Hospital Birmingham, UK, Kumail Khan, 72 Poole Crescent, Birmingham, WMD B17 0PB, United Kingdom; ²King Hussain Cancer Centre, Amman Jordan; ³Queen Elizabeth Hospital - University Hospital Birmingham, UK

10.1136/heartjnl-2022-BCS.62

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

63 COMPARING THE SAFETY & EFFICACY OF RADIAL VERSUS FEMORAL ARTERIAL ACCESS IN CHRONIC TOTAL OCCLUSION PERCUTANEOUS CORONARY INTERVENTION

¹Lloyd Tudor, ²Abdul Mozid. ¹Leeds Teaching Hospitals NHS Trust, Leeds General Infirmary, Great George Street, Leeds, WYK 1S1 3EX, United Kingdom; ²Leeds Teaching Hospitals NHS Trust

10.1136/heartjnl-2022-BCS.63

Background The radial arteries have increasingly become the primary choice for arterial access in percutaneous coronary intervention (PCI), surpassing the use of the femoral arteries due to a reduction in access site complication, reduction in mortality, and the avoidance of major bleeding. Despite this, there remains a lack of support for the routine adaptation of radial artery access in PCI for chronic total occlusion (CTOPCI).

Methods Patients undergoing CTOPCI between January 2015 and January 2022 at a single tertiary cardiology centre were classified according to arterial access method, gender, age, previous MI status, previous PCI status, previous CABG status, operator determined procedural success, incidence and type of complication, length of inpatient stay, and in-hospital mortality. Statistical analysis was performed via Jamovi software using predominantly Pearson's chi-square tests, with two sample t-tests for comparing means and binomial logistic regression for identifying predictors of procedural success, incidence of complication, and in-hospital mortality.

Results A total of 638 cases were included for analysis in this study. The mean age of patients in this study was 66 ± 11 years, 82.9% of patients were male, with no significant difference between either group. A chi-square test found those who had previously undergone PCI were more likely to require femoral access ($\chi^2(1) = 11.6$, $p = < .001$).

The mean length of an inpatient stay was 1.1 ± 4 days, with no significant difference between length of stay in either group, $t(636) = -1.13$, $p = 0.261$. A chi-square test found that a procedure was more likely to be successful if radial access was utilised ($\chi^2(1) = 5.6$, $p = 0.018$). A chi-square test found that those in the femoral group were more likely to experience procedural complication ($\chi^2(1) = 3.9$, $p = 0.048$). Chi-square tests for complication types found those in the femoral group were more likely to experience a retroperitoneal bleed ($\chi^2(1) = 6.7$, $p = 0.010$).

Binomial logistic regression was performed to determine the effect of the measured variables on procedural success, incidence of complication, and in-hospital mortality. Procedural success was significantly associated with age (OR 1.04, 95%